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

Form 20-F

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**

OR

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

For the fiscal year ended December 31, 2021

OR

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

OR

☐ **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number: 001-40299

Achilles Therapeutics plc

(Exact name of registrant as specified in its charter)

England and Wales	**2836**	**Not Applicable**
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification No.)**

Daniel C.C. Hood
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(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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

Title of class	Trading Symbol(s)	Name of each exchange on which registered
American Depositary Shares, each representing one ordinary share, nominal value of £0.001 per share	ACHL	Nasdaq Global Select Market
Ordinary shares, nominal value £0.001 per share*		Nasdaq Global Select Market *

* Not for trading, but only in connection with the registration of the American Depositary Shares.

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

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the Annual Report:

Ordinary shares, nominal value £0.001 per share: 40,603,489 as of December 31, 2021

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☐ No ☒

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☒ No ☐

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

Large accelerated filer	☐	Accelerated filer	☐	Non-accelerated filer	☒	Emerging growth company	☒

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards † provided pursuant to Section 13(a) of the Exchange Act. ☐

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

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

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☒	International Financial Reporting Standards as issued by the International Accounting Standards Board ☐	Other ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow:

Item 17 ☐ Item 18 ☐

If this is an Annual Report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ No ☒

Auditor Name: KPMG, LLC	**Auditor Location:**	**Reading, United Kingdom**	**Auditor Firm ID:**	**1118**

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GENERAL INFORMATION

All references in this Annual Report on Form 20-F, or Annual Report, to "Achilles," "ACHL," the "company," "we," "us" and "our" refer to Achilles Therapeutics plc and its consolidated subsidiaries, except where the context otherwise requires.

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 referred to in this Annual Report, are the property of their respective owners. Trade names, trademarks and service marks of other companies appearing in this Annual Report are the property of their respective holders. Solely for convenience, the trademarks and trade names in this Annual Report may be referred to without the ® and ™ symbols, but such references should not be construed as an indicator that their respective owners will not assert their rights thereto to the fullest extent under applicable law. We do not intend to use or display other companies' trademarks or trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

Our audited consolidated financial statements were prepared in accordance with generally accepted accounting principles in the United States, or U.S. GAAP, as issued by the Financial Accounting Standards Board, or FASB. Our consolidated financial statements are presented in U.S. Dollars. All references in this Annual Report 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 Annual Report have been translated into U.S. dollars at the rate of $1.3497 to £1.00, on December 31, 2021, the last business day of our fiscal period ended December 31, 2021. Throughout this Annual Report, references to "ADSs" mean American Depositary Shares or ordinary shares represented by American Depositary Shares, as the case may be.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that involve substantial risks and uncertainties. The forward-looking statements are contained principally in Part I, Item 4.B "Business Overview," Part I, Item 3.D. "Risk Factors," and Part I, Item 5. "Operating and Financial Review and Prospects," but are also contained elsewhere in this Annual Report. 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" and "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 contained in this Annual Report are based upon information available to us as of the date of this Annual Report and, while we believe we have a reasonable basis for each forward-looking statement contained this Annual Report, we caution you that these statements are based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics and industry change, and depend on economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Although we believe that we have a reasonable basis for each forward-looking statement contained in this Annual Report, we caution you that forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. All of our forward-looking statements are subject to risks and uncertainties that may cause our actual results to differ materially from our expectations. These forward-looking statements include, without limitation, statements about the following:

- the success, cost, enrollment and timing of our clinical trials;
- the success, cost and timing of our research activities;
- 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, or MAP, 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 controlled foreign corporation and/or passive foreign investment company for current and future periods; and
- our ability to overcome the challenges posed by the ongoing COVID-19 pandemic to the conduct of our business.

In addition, even if our results, performance, financial condition and liquidity, and the development of the industry in which we operate are consistent with such forward-looking statements, they may not be predictive of results or developments in future periods. Among the factors that may result in differences are our expectations regarding risks and uncertainties related to the impact of the ongoing COVID-19 pandemic on our business, operations, strategy, goals and anticipated milestones, including our ongoing and planned research activities, ability to conduct ongoing and planned clinical trials, clinical supply of current or future drug candidates, commercial supply of current or future approved products, and launching, marketing and selling current or future approved products, and our ability to obtain and maintain requisite regulatory approvals and to enroll patients in our planned clinical trials, additional interactions with regulatory authorities and expectations regarding future regulatory filings, our reliance on collaborations with third parties, estimating the commercial potential of our development programs and other risks indicated in the risk factors included in this report and other filings with the U.S. Securities and Exchange Commission, or the SEC.

Actual results could differ materially from our forward-looking statements due to a number of factors, including the risks set forth under the section “Risk Factors” of this report and elsewhere in this Annual Report.

Any forward-looking statements that we make in this Annual Report are valid only as of the date of such statements, and we undertake no obligation to update such statements to reflect events or circumstances after the date of this Annual Report or to reflect the occurrence of unanticipated events.

SUMMARY OF THE MATERIAL AND OTHER RISKS ASSOCIATED WITH OUR BUSINESS

Below is a summary of the material risks to our business, operations and the investment in our ADSs. This summary does not address all of the risks that we face. Risks and uncertainties not presently known to us or that we presently deem less significant may also impair our business operations. Additional discussion of the risks summarized in this risk factor summary, and other risks that we face, can be found below and should be carefully considered, together with other information in this Annual Report on Form 20-F in its entirety before making investment decisions regarding our ADSs.

- *Risks Related to our Financial Position and Capital Needs*
  - 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.
  - 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.
- *Risks Related to the Development of our Programs*
  - 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.
- *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. Generation of any cellular therapy, including our clonal neoantigen-reactive T-cell therapy, or cNeT, that specifically targets multiple clonal neoantigens to eradicate the tumor 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.

- *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.
    - Our supply chain network is exposed to potentially adverse events such as physical disruptions, environmental and industrial accidents, trade restrictions, increases in the cost of raw materials or disruptions at a key supplier which 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.
    - Cell-based therapies and biologics rely on the availability of reagents, specialized equipment, and other specialty materials, which may not be available to us on acceptable terms or at all. For some of these reagents, equipment, and materials, we rely or may rely on sole source vendors or a limited number of vendors, which could impair our ability to manufacture and supply our products.

- *Risks Related to Sales, Marketing and Competition*
    - We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

- *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 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.

- *Risks Related to our Business Operations and Growth*
    - The ongoing spread of COVID-19, and the proliferation of variants capable of escaping the coverage of available vaccines, 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.

PART I

Item 1. Identity of Directors, Senior Management and Advisors.

Not applicable.

Item 2. Offer Statistics and Expected Timetable.

Not applicable.

Item 3. Key Information.

A. [Reserved.]

B. Capitalization and Indebtedness.

Not applicable.

C. Reasons for the Offer and Use of Proceeds.

Not applicable.

D. Risk Factors.

Our business faces significant risks. You should carefully consider all of the information set forth in this Annual Report and in our other filings with the SEC including the following risk factors which we face and which are faced by our industry, any of which could materially adversely affect our business, financial condition, or results of operations. The risks and uncertainties summarized 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, prospects, financial condition and results of operations. This Annual Report also contains forward-looking statements that involve risks and uncertainties. Our results could materially differ from those anticipated in these forward-looking statements as a result of certain factors including the risks described below and elsewhere in this Annual Report and our other SEC filings. See also the "Statement Regarding Forward-Looking Statements" above.

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, metastatic or recurrent melanoma and follow–on indications including head and neck squamous cell carcinomas, or HNSCC. 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 and our initial public offering, or IPO which we completed in April 2021.

We have incurred significant operating losses in each period since our inception in May 2016. For the years ended December 31, 2021 and 2020, we reported net losses of $61.1 million and $33.2 million, respectively. As of December 31, 2021, we had an accumulated deficit of $119.1 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, HNSCC 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 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 and any future commercialization efforts; and
- incur additional legal, accounting and other expenses in operating our business, including the 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.

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 cells, or cNeT, therapy-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 and other 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 also have ongoing and planned IND-enabling activities for ATL001 in follow-on indications, such as HNSCC. 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

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, our planned Phase I/IIa clinical trial of ATL001 in HNSCC and our ongoing and planned IND-enabling activities for ATL001 in follow-on indications, such as renal cell carcinoma, or RCC. 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. We have incurred and expect to continue 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 $266.3 million as of December 31, 2021. We believe that, based upon our current operating plan, our existing capital resources will be sufficient to fund our anticipated operations into the second half of 2024. 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 of expanding our manufacturing infrastructure and facilities to support the manufacture of larger quantities of our product candidates for clinical development and potential commercialization globally;
- 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, 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, 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 further clinical development of such product candidates accordingly;
- 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 ongoing COVID-19 pandemic may increase the likelihood that we encounter 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. Additionally, as of May 26, 2021, the FDA noted it is continuing to ensure timely reviews of applications for medical products during the ongoing COVID-19 pandemic in line with its user fee performance goals. However, the FDA may not be able to continue its current pace and approval timelines could be extended, including where a pre-approval inspection or an inspection of clinical sites is required and due to the ongoing COVID-19 pandemic and travel restrictions FDA is unable to complete such required inspections during the review period. During the COVID-19 public health emergency, a number of companies announced receipt of complete response letters due to the FDA's inability to complete required inspections for their applications.

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 Independent Data and Safety Monitoring Committee, or IDSMC, 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, such as HNSCC, 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 of 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, though the clinical presentation was very atypical for this. The patient also continued to experience disease progression and was ultimately put on end of life care and medical treatment was ceased. The case was reviewed by the IDSMC, including additional data from the post-mortem and translational science outputs related to cNet engraftment and cytokine release, with the final conclusion that the event was unlikely related to the treatment with ATL001. While we have not seen additional instances of ICANS in our trials, patients may experience future serious adverse events which could halt 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, the EMA, the MHRA 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 harm, including 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 our ADSs.

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 ongoing 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, the EMA, the MHRA 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.

We have expanded our clinical operations to the United States and Europe, in addition to conducting our clinical trials in the United Kingdom. The acceptance of data from clinical trials conducted outside the United States or another jurisdiction by the FDA, the EMA, the MHRA 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, the EMA, the MHRA or any comparable foreign regulatory authority will accept data from trials conducted outside of the United States or the applicable jurisdiction. If the FDA, the EMA, the MHRA 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, and planned development in HNSCC, 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 could 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, the EMA, the MHRA 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, the EMA, the MHRA 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, the EMA, the MHRA 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, the EMA, the MHRA 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 reasonable 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 progresses 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 result in a clinical hold and 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. In the fourth quarter of 2021, regulatory authorities in the UK, Germany, France and Spain in respect of CHIRON and in the UK in respect of THETIS allowed for a modified VELOS manufacturing process and a switch from our original Process 1 to a higher dose Process 2. VELOS Process 2 includes an optimized cytokine cocktail throughout the manufacturing process and additional media supplements for T cell expansion following the dendritic cell-driven co-culture step. VELOS Process 2 retains an identical manufacturing timeline to Process 1. We are in discussions with the FDA on the proposed switch of manufacturing to Process 2 and may continue to enroll subjects and administer ATL001 to U.S. patients per protocol using VELOS manufacturing Process 1 until the switch to Process 2 is approved.

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 expect to commence construction of a flexible GMP modular facility to scale our manufacturing footprint where pre-assembled, or pod, cleanrooms can be brought online in a phased approach. The modular facility will support commercial supply for the United Kingdom and European Union, and will provide 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, the EMA, the MHRA 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. We are, and will in future be, 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.

Our supply chain network is exposed to potentially adverse events such as physical disruptions, environmental and industrial accidents, trade restrictions, increases in the cost of raw materials or disruptions at a key supplier which 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.

Cell-based therapies and biologics rely on the availability of reagents, specialized equipment, and other specialty materials, which may not be available to us on acceptable terms or at all. For some of these reagents, equipment, and materials, we rely or may rely on sole source vendors or a limited number of vendors, which could impair our ability to manufacture and supply our products.

Our ability to successfully develop our product candidates, and to ultimately supply our commercial products in quantities sufficient to meet the market demand, depends in part on our ability to obtain the materials for these products in accordance with regulatory requirements and in sufficient quantities for preclinical and clinical testing and commercialization. We do not currently have arrangements in place for a redundant or second-source supply of certain of our product materials in the event any of our current vendors of such materials cease their operations for any reason. We are also unable to predict how changing global economic conditions or potential global health concerns such as the ongoing COVID-19 pandemic will affect our third-party vendors. Any negative impact of such matters on our third-party vendors may also have an adverse impact on our results of operations or financial condition. We are not certain that our single-source vendors will be able to meet our demand for their products, either because of the nature of our agreements with those vendors, our limited experience with those vendors or our relative importance as a customer to those vendors. It may be difficult for us to assess their ability to timely meet our demand in the future based on past performance. While our vendors have generally met our demand for their products on a timely basis in the past, they may subordinate our needs in the future to their other customers. Establishing additional or replacement vendors for the materials used in our product candidates, if required, may not be accomplished quickly. If we are able to find a replacement vendor, such replacement vendor would need to be qualified and may require additional regulatory inspection or approval, which could result in further delay. While we seek to maintain adequate inventory of the materials used in our product candidates, any interruption or delay in the supply of components or materials, or our inability to obtain such materials from alternate sources at acceptable prices in a timely manner could impede, delay, limit or prevent our development efforts, which could harm our business, results of operations, financial condition and prospects.

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.

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 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 efficacy, 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., or Iovance, Adaptimmune Therapeutics PLC, Autolus Therapeutics PLC, Instil Bio, Inc., or Instil, PACT Pharma, Inc., Neogene Therapeutics, B.V., BioNTech SE, Turnstone Biologics Corp., Genocea Biosciences, Inc., Obsidian Therapeutics and KSQ Therapeutics, Inc. In particular, Iovance and Instil are developing standard TIL therapies for treatment of various

cancers including melanoma, which will compete directly with our product candidate, ATL001, in the relevant indications.

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, if approved. 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 "Item 4.B. Business Overview—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 is 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, the EMA, the MHRA or similar foreign regulatory authorities may fail to approve our manufacturing processes or facilities, whether run by us or our contract manufacturing organizations, or CMOs. In addition, if we make changes to our manufacturing process for ATL001 or any future product candidates in the future, including adding a new CMO, 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, United Kingdom 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, the European Union or the United Kingdom 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 medicines, somatic-cell therapy medicines and tissue-engineered medicines, which must be centrally authorized in the EU. The role of the CAT is to prepare a draft opinion on an application for marketing authorization for a cell therapy medicinal candidate that is submitted to the EMA. In the EU, the development and evaluation of a cell 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 cell therapy or genome editing product candidates, but that remains uncertain at this point.

The clinical trial requirements of the FDA, the EMA, the MHRA 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, the MHRA 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 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, the MHRA 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 re-evaluate 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 generally requires, unless otherwise informed by the agency, that all advertising and promotional materials intended for dissemination or publication within 120 days of marketing approval be submitted to the agency for review during the pre-approval review period, 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. Manufacturers and manufacturers' facilities are also required to comply with applicable product tracking and tracing requirements. 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 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 claim actions 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 prospects.

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 are 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 the United Kingdom and European Union 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 the United Kingdom and/or 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 June 17, 2021, the U.S. Supreme Court dismissed the most recent judicial challenge to the ACA without specifically ruling on the constitutionality of the ACA. 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. These reductions went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030, with the exception of a temporary suspension from May 1, 2020 through March 31, 2022. Then, a 1% payment reduction will occur beginning April 1, 2022 through June 30, 2022, and the 2% payment reduction will resume on July 1, 2022. 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.

At a federal level, President Biden signed an Executive Order on July 9, 2021 affirming the administration's policy to (i) support legislative reforms that would lower the prices of prescription drug and biologics, including by allowing Medicare to negotiate drug prices, by imposing inflation caps, and, by supporting the development and market entry of lower-cost generic drugs and biosimilars; and (ii) support the enactment of a public health insurance option. Among other things, the Executive Order also directs HHS to provide a report on actions to combat excessive pricing of prescription drugs, enhance the domestic drug supply chain, reduce the price that the Federal government pays for drugs, and address price gouging in the industry; and directs the FDA to work with states and Indian Tribes that propose to develop section 804 Importation Programs in accordance with the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, and the FDA's implementing regulations. FDA released such implementing regulations on September 24, 2020, which went into effect on November 30, 2020, providing guidance for states to build and submit importation plans for drugs from Canada. On September 25, 2020, CMS stated drugs imported by states under this rule will not be eligible for federal rebates under Section 1927 of the Social Security Act and manufacturers would not report these drugs for "best price" or Average Manufacturer Price purposes. Since these drugs are not considered covered outpatient drugs, CMS further stated it will not publish a National Average Drug Acquisition Cost for these drugs. If implemented, importation of drugs from Canada may materially and adversely affect the price we receive for any of our product candidates. Further, on November 20, 2020 CMS issued an Interim Final Rule implementing the Most Favored Nation, or MFN, Model under which Medicare Part B reimbursement rates would have been be calculated for certain drugs and biologicals based on the lowest price drug manufacturers receive in Organization for Economic Cooperation and Development countries with a similar gross domestic product per capita. However, on December 29, 2021 CMS rescinded the Most Favored Nations rule. Additionally, on November 30, 2020, HHS published a regulation removing safe harbor protection for price reductions from pharmaceutical manufacturers to plan sponsors under Part D, either directly or through pharmacy benefit managers, unless the price reduction is required by law. The rule also creates a new safe harbor for price reductions reflected at the point-of-sale, as well as a safe harbor for certain fixed fee arrangements between pharmacy benefit managers and manufacturers. Pursuant to court order, the removal and addition of the aforementioned safe harbors were delayed and recent legislation imposed a moratorium on implementation of the rule until January 1, 2026. Although a number of these and other proposed measures may require authorization through additional legislation to become effective, and the Biden administration may reverse or otherwise change these measures, both the Biden administration and Congress have indicated that they will continue to seek new legislative measures to control drug costs.

Furthermore, on July 9, 2021, President Biden issued an executive order directing the FDA to, among other things, continue to clarify and improve the approval framework for biosimilars, including the standards for interchangeability of biological products, facilitate the development and approval of biosimilar and interchangeable products, clarify existing requirements and procedures related to the review and submission of BLAs, and identify and address any efforts to impede biosimilar competition.

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 are 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 are 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 are 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, since March 2020 when foreign and domestic inspections of facilities were largely placed on hold in response to the COVID-19 pandemic, the FDA has been working to resume routine surveillance, bioresearch monitoring and pre-approval inspections on a prioritized basis. Since April 2021, the FDA has conducted limited

inspections and employed remote interactive evaluations, using risk management methods, to meet user fee commitments and goal dates. Ongoing travel restrictions and other uncertainties continue to impact oversight operations both domestic and abroad and it is unclear when standard operational levels will resume. The FDA is continuing to complete mission-critical work, prioritize other higher-tiered inspectional needs (e.g., for-cause inspections), and carry out surveillance inspections using risk-based approaches for evaluating public health. 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, and the FDA does not determine a remote interactive evaluation to be adequate, the FDA has stated that it generally intends to issue, depending on the circumstances, a complete response letter or defer action on the application until an inspection can be completed. During the COVID-19 public health emergency, a number of 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 may 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;
- federal government price reporting laws, which require us to calculate and report complex pricing metrics in an accurate and timely manner to government programs;
- 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 United Kingdom, European Union 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 the United Kingdom, European Union 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. Since December 31, 2020, the data protection obligations of the GDPR have continued to apply to our processing of personal data in substantially unvaried form.

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. On June 28, 2021, the European Commission published its decision recognizing 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 decision is effective for four years and its continuing effect is dependent on UK law and regulation on data privacy not diverging materially from the GDPR.

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 the UK and 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 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 our 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 our 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. For example, in February 2022, we signed a letter of intent with a CMO, Center for Breakthrough Medicines, or CBM, to initiate the technology transfer of ATL001 with an intention to supply clinical doses to U.S. patients in 2024. If any CMO with whom we contract fails to perform its obligations, we may be forced to manufacture the materials ourselves or enter into an agreement with a different CMO, which we may not be able to do on reasonable terms, if at all. In either scenario, our clinical trials supply could be delayed significantly as we establish alternative supply sources. In some cases, the technical skills required to manufacture our product candidates may be unique or proprietary to the original CMO and we may have difficulty, or there may be contractual restrictions prohibiting us from, transferring such skills to a back-up or alternate supplier, or we may be unable to transfer such skills at all. In addition, if we are required to change CMOs for any reason, we will be required to verify that the new CMO maintains facilities and procedures that comply with quality standards and with all applicable regulations. We will also need to verify, such as through a manufacturing comparability study, that any new manufacturing process will produce our product candidate according to the specifications previously submitted to the FDA or another regulatory authority. The delays associated with the verification of a new CMO could negatively affect our ability to develop product candidates or commercialize our products in a timely manner or within budget. Furthermore, a CMO may possess technology related to the manufacture of our product candidate that such CMO owns independently. This would increase our reliance on such CMO or require us to obtain a license from such CMO in order to have another CMO manufacture our product candidates. In addition, changes in manufacturers often involve changes in manufacturing procedures and processes, which could require that we conduct bridging studies between our prior clinical supply used in our clinical trials and that of any new manufacturer. We may be unsuccessful in demonstrating the comparability of clinical supplies which could require the conduct of additional clinical trials.

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.

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 exploring wider incentive mechanisms to be in-line with the market. Notwithstanding our current and future development of incentive mechanisms, we may be exposed to increases in wage inflation that have an adverse impact on our financial position and on our ability to attract, hire and retain key employees.

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 has made it, and will continue to 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 ongoing spread of COVID-19, and the proliferation of variants capable of escaping the coverage of available vaccines 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.

Since the beginning of the COVID-19 pandemic, three vaccines for COVID-19 have received Emergency Use Authorization by the FDA and two of those later received marketing approval. Additional vaccines may be authorized or approved in the future. The resultant demand for vaccines and potential for manufacturing facilities and materials to be commandeered under the Defense Production Act of 1950, or equivalent foreign legislation, may make it more difficult to obtain materials for the products needed for our clinical trials, which could lead to delays in these trials.

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, the evolution and proliferation of new variants, 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, 2021, we had 242 full-time employees and 10 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 ongoing 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 our ADSs and may materially affect our results of operations and financial condition.

Our ADSs 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 our 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 to our annual financial statements appearing elsewhere in this Annual Report 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 OWNERSHIP OF OUR ADSs

Certain significant shareholders own a substantial number of our ordinary shares and as a result (together with low attendance in recent shareholders meetings), may be able to exercise control over us, including the outcome of shareholder votes. These shareholders may have different interests from us or your interests.

We have a number of significant shareholders. For an overview of our current significant shareholders, please see "Item 7.A. Major Shareholders."

Currently, we are not aware that any of our existing shareholders have entered or will enter into a shareholders' agreement with respect to the exercise of their voting rights. Nevertheless, depending on the level of attendance at our general meetings of shareholders, or the General Meeting, these significant shareholders could, alone or together, have the ability to determine the outcome of decisions taken at any such General Meeting. Any such voting by these shareholders may not be in accordance with our interests or those of our other shareholders. Among other consequences, this concentration of ownership may have the effect of delaying or preventing a change in control and might therefore negatively affect the market price of our ADSs or ordinary shares.

If securities or industry analysts cease coverage of us, or publish inaccurate or unfavorable research about our business, the price of our ADSs and our trading volume could decline.

The trading market for our ADSs depends in part on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. Securities or industry analysts may elect not to provide research coverage of our ADSs, and such lack of research coverage may negatively impact the market price of our ADSs. If one or more of the analysts who cover us downgrade our ADSs or publish inaccurate or unfavorable research about our business, the price of the ADSs would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our ADSs could decrease, which might cause the price of our ADSs and trading volume to decline.

We are an emerging growth company, and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies make our 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, we 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:

- 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 until 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) December 31, 2026 ,which is the last day of our fiscal year following the fifth anniversary of the date of the completion of our initial public 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, are not subject to U.S. proxy rules. We are 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.

We 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 our ADSs less attractive, and there may be a less active trading market for our ADSs.

As a foreign private issuer and as permitted by the listing requirements of Nasdaq, we 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 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, 2022.

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 have and will continue to incur significant costs as a result of operating as a company listed in the U.S., and our board of directors have been and will continue to 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 have and will continue to 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 devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations increase our legal and financial compliance costs and make some activities more time-consuming and costly. For example, these rules and regulations have made it more expensive for us to obtain director and officer liability insurance, which in turn could make it more difficult for us to attract and retain qualified 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 are 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 are not 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 engage in a process to document and evaluate our internal controls over financial reporting, which is both costly and challenging. In this regard, we have needed to and will need to continue to dedicate internal resources, 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 in the future 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.

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

The depositary for our 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 our 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 have not paid, and do not intend to pay, dividends on our ADSs, so any future 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 our ADSs do 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 Annual Report and the deposit agreement, holders of our ADSs are not able to exercise voting rights attaching to the ordinary shares represented by our 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 are not 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 “Item 12.D. American Depositary 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 our 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 our 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. Any person or entity purchasing or otherwise acquiring any of 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.

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 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.

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 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 our ADSs could decline substantially. The price of our 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 Annual Report, 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 shares 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.

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 provide that the courts of England and Wales are 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 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 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 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 are 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 "Item 10.E. Taxation—U.S. Taxation") 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, 2021. 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, 2022. 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.

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 "Item 10.E. Taxation—U.S. Taxation" in this Annual Report. 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.

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 through the date of completion of our IPO on April 6, 2021. We believe that we were not classified as a CFC from the date of completion of our IPO to December 31, 2021. 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.

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, 2021, we had cumulative United Kingdom carryforward tax losses of $71.0 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. The UK Finance Act of 2021 introduced a cap on payable credit claims under the SME Programme in excess of £20,000 with effect from April 2021 by reference to, broadly, three times the total PAYE and NICs liability of the company, subject to an exception which prevents the cap from applying. That exception requires the company to be creating, taking steps to create or managing intellectual property, as well as having qualifying research and development expenditure in respect of connected parties which does not exceed 15% of the total claimed. If such exception does not apply, this could restrict the amount of payable credit that we claim.

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.

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

We are 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. We continue the process of documenting, reviewing, and improving our internal controls and procedures for compliance with Section 404 of the Sarbanes-Oxley Act, which requires annual management assessment of the effectiveness of our internal control over financial reporting. We continue to recruit additional finance and accounting personnel with certain skill sets that we 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 our ADSs and make it more difficult for us to effectively market and sell our products to new and existing customers.

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.

On June 23, 2016, the electorate in the UK voted in favor of leaving the EU, commonly referred to as Brexit, and the UK formally left the EU on January 31, 2020. The transition period during which EU pharmaceutical law remained applicable to the UK ended on December 31, 2020. The EU and the UK have concluded a trade and cooperation agreement, or TCA, which was provisionally applicable since January 1, 2021 and has been formally applicable since May 1, 2021. The TCA includes specific provisions concerning pharmaceuticals, which include the mutual recognition of Good Manufacturing Practice, or GMP, inspections of manufacturing facilities for medicinal products and GMP documents issued, but does not foresee wholesale mutual recognition of UK and EU pharmaceutical regulations. Since the regulatory framework in the UK covering quality, safety and efficacy of pharmaceutical products, clinical trials, marketing authorization, commercial sales and distribution of pharmaceutical products is derived from EU directives and regulations, Brexit could materially impact the future regulatory regime which applies to drugs and the approval of drug candidates in the UK, now that the UK legislation has the potential to diverge from EU legislation. It remains to be seen how Brexit will impact regulatory requirements for product candidates and products in the UK in the long-term. The long-term impact of Brexit, including on our business and our industry, will depend on how the terms of the TCA take effect in practice and any other agreements that are negotiated in relation to the UK's future relationship with the EU.

Since the expiry of the transition period, Great Britain is no longer covered by centralized marketing authorizations (under the Northern Irish Protocol, centralized marketing authorizations will continue to be recognized in Northern Ireland). For a period of two years from January 1, 2021, the Medicines and Healthcare products Regulatory Agency, or MHRA, the UK medicines regulator, 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 new Great Britain marketing authorization. A separate application will, however, still be required. Any new regulations in the future could add time and expense to the conduct of our business, as well as the process by which our drug candidates receive regulatory approval in the UK, the EU and elsewhere.

In addition, as we are headquartered in the UK, it is possible that the continued effects of 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 UK to other locations in Europe and the ability of European healthcare practitioners to move freely to the UK in order to complete part of their training or work on our clinical trials there. In addition, we intend to continue to manufacture our cNeT product candidates at our two UK manufacturing sites, the Royal Free Hospital and the Cell and Gene Therapy Catapult and, once operational, our modular manufacturing facility at Hayes in the UK. Manufacturing product candidates in the UK could, now the Brexit transition period has expired, affect the clearance or timing of the release of our clinical trial materials out of the UK. Any such delays could result in our clinical trial sites outside of the UK not having sufficient clinical trial materials and could adversely affect the timing and completion of our clinical trials.

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

Item 4. Information on the Company.

A. History and Development of the Company

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 in November 2021, 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. In April 2021, following the completion of our U.S. initial public offering, our American Depositary Shares began trading on the Nasdaq, under the symbol "ACHL". Our agent for service of process in the United States is Cogency Global Inc.

On April 6, 2021, we completed our initial public offering, or IPO. In connection with the IPO, we sold an aggregate of 9,750,000 ADSs representing the same number of ordinary shares, at a public offering price of $18.00 per ADS. Net proceeds to us were $160.6 million, after deducting underwriting discounts and commissions and other offering expenses. Upon completion of the IPO, we adopted new Articles of Association suitable for a listed public limited company.

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. The information contained on, or that can be accessed through, our website is not a part of, and shall not be incorporated by reference into, this Annual Report. We have included our website address as an inactive textual reference only.

Our capital expenditures for the years ended December 31, 2021, 2020 and 2019 amounted to $7.6 million, $11.8 million and $0.9 million, respectively. Capital expenditures primarily consisted of purchases of property and equipment and leasehold improvements, which largely consisted of operating and lab equipment. We expect our capital expenditures to increase in the near term as we continue to advance our research and development programs, seek to expand our internal manufacturing capabilities, and otherwise grow our operations. We anticipate our capital expenditures in 2022 will be financed from our existing cash and cash equivalents.

The SEC maintains an internet site at http://www.sec.gov that contains reports, information statements, and other information regarding issuers that file electronically with the SEC.

B. 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-reactive T cell, or cNeT, therapy that specifically targets multiple clonal neoantigens to eradicate the tumor or tumors. 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 additional patient 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. Our investigational new drug application, or IND, for HNSCC was accepted by the FDA in January 2022 using VELOS Process 1 manufacturing and we expect to make additional submissions for our other earlier stage programs in the future.

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 downregulation 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. In contrast, we have demonstrated the ability to detect, quantify, and track patient-specific clonal neoantigen-reactive T cells, or cNeT. The ability to reliably detect and quantify our active component is a key differentiator of our technology that is unique in the field and which we believe will be critical for the successful development of TIL-based therapies.

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 approximately 795 NSCLC patients enrolled to date and which has collected over 3,200 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:

Depending on the results of our Phase I/II trials, we plan to engage with the appropriate regulatory authorities to discuss potential pathways to registration.

We are currently conducting a 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 are evaluating safety and tolerability of cNeT and assessing clinical efficacy based primarily on the change from baseline in tumor size, response rate and duration of response. Data from the first eight patients were presented in November 2021 and we expect to generate additional patient data across 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. Our investigational new drug application, or IND, for HNSCC was accepted by the FDA in January 2022 for VELOS Process 1 manufacturing and we expect to make additional submissions for our other earlier stage programs in the future.

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.

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. As of February 28, 2022, we have treated ten patients from these trials and data from eight patients were presented in November 2021. We expect to generate additional patient data from both clinical trials 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.

- 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 UK 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 treat 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.

- *Potency assay difficulties* - Regulatory authorities require demonstration that the product contains an active component of a specific identity and potency. Potency can be defined as the specific ability of the product to effect a given result that should take effect through the product's mechanism of action. We believe this may encumber standard TIL therapy companies.

OUR SOLUTION

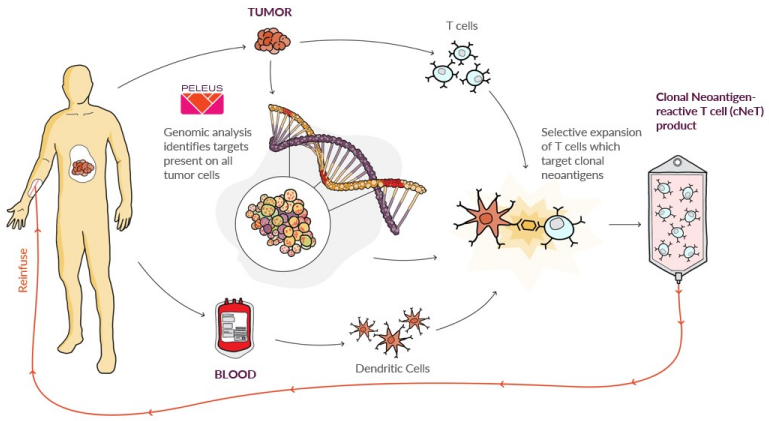
Our approach uses a precision TIL-based therapy to target what we believe to be the most specific tumor antigens, clonal neoantigens, in solid tumors. We believe that tumor clonal neoantigens represent optimal tumor targets because they are recognized by the immune system as foreign antigens and are 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 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



Our cNeT is designed to be:

- *Specific and durable*—We are able to 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 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.

- *Measurable and quantifiable* - With our platform we can quantify the cNeT component as a percentage of the total T cells (cNeT reactivity) and calculate the expected cNeT dose of each product. cNeT reactivity can be used as both a release criterion and potency measure. We believe that cNeT is the active component of TIL and will correlate with anti-tumor effect. Further phenotypic and functional characteristics of cNeT can be measured to develop potency assays. We have developed a timeline for interaction with regulatory authorities and aim to have an agreed upon plan prior to registrational studies.

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. 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 UK national study, funded by Cancer Research UK, to collect NSCLC samples from patients at diagnosis and relapse. The program has been running for more than four years and has enrolled approximately 795 NSCLC patients to date and collected over 3,200 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 has expanded to include fourteen active sites in the UK, EU and U.S., with twenty-five tumor procurement channels in six tumor indications. We refer to each tumor type that can be collected at a site as a separate procurement channel so one site provides either one or multiple procurement channels. 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.

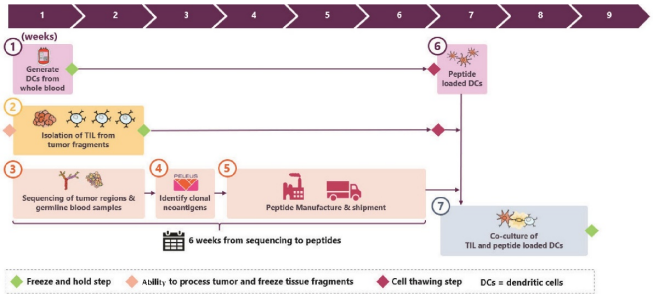
Our Manufacturing Solution

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.

In the fourth quarter of 2021, regulatory authorities in the UK, Germany, France and Spain with respect to CHIRON and in the UK with respect to THETIS allowed for a modified manufacturing process and a switch from our original Process 1 to a higher dose Process 2. VELOS Process 2 includes an optimized cytokine cocktail throughout the manufacturing process and additional media supplements for T cell expansion following the dendritic cell-driven co-culture step. VELOS Process 2 retains an identical manufacturing timeline to Process 1. We are continuously improving our process with the goal of decreasing end-to-end time to six to eight weeks.

The manufacturing success rate for VELOS Process 1 as of January 13, 2022 across both CHIRON and THETIS trials was 63% in the last 27 patients. We anticipate an improvement in manufacturing success with Process 2 and the generation of higher cNeT doses.

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:

Depending on the results of our Phase I/II trials, we plan to engage with the appropriate regulatory authorities to discuss potential pathways to registration.

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. Our Phase I/IIa trials are evaluating safety and tolerability of cNeT and assessing clinical efficacy based primarily on the change from baseline in tumor size, response rate and duration of response. Data from the first eight patients were presented in November 2021 and we expect to generate data from additional patients across both clinical trials in the second half of 2022.

We believe the principles of tumor evolution to be common across many tumor types, which could enable 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 have identified these initial tumor indications using the following criteria:

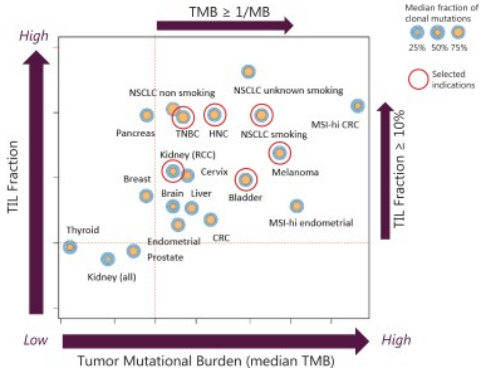
- **Tumor mutational burden**—Tumor mutational burden is a measure of the number of mutations in the coding region of tumor DNA as compared to healthy tissue DNA. This mutational burden will generally increase over time as new mutations accumulate through exposure to environmental carcinogens (e.g., 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.



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 further 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 approximately 236,000 new cases and 132,000 deaths annually in the U.S. The majority of 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., approximately 106,000 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 open-label, proof-of-concept clinical trials in advanced NSCLC and metastatic or recurrent melanoma:

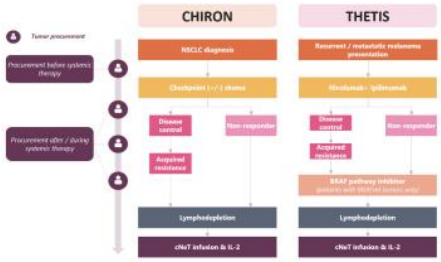
- **CHIRON**—a Phase I/IIa clinical trial to evaluate the safety, tolerability and clinical activity of cNeT in up to 60 patients with advanced NSCLC, ongoing at eight UK sites. Our IND was accepted by the FDA in December 2019 and we plan on expanding our trial in up to ten sites in the U.S. and Europe in 2022.

- **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 six UK sites and submitted an IND to the FDA in November 2020 to enable expansion to U.S. sites in 2022. Further clinical trial applications in the European Union are planned for 2022.

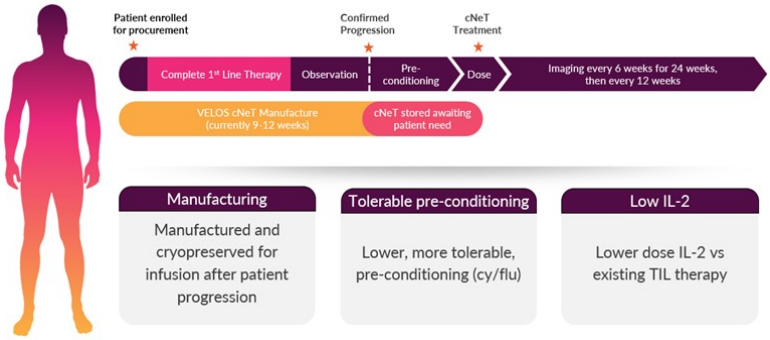
Our trial protocol allows us the option to include an additional cohort for each of CHIRON and THETIS to evaluate cNeT in combination with a PD-1 inhibitor (pembrolizumab in CHIRON and nivolumab in THETIS). We expect to report further patient data from both clinical trials in the second half of 2022.

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 x 10^7 –1x 10^9 cNeT.

Patients in both trials receive a non-myeloablative lymphodepleting regimen of cyclophosphamide (300mg/ m2/day) and fludarabine (30mg/m2/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 appropriate regulatory authorities to discuss potential pathways to registration. 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 November 12, 2021, we have analyzed initial data from the first eight patients in the CHIRON and THETIS clinical trials, three patients with NSCLC and five 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 eight patients received a median dose of 14.2×10^6 cNeT, which is at the lower end of our prospectively targeted therapeutic dose range of $1 \times 10^7 – 1 \times 10^9$ cNeT. Data from these eight 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 and none of the higher-grade adverse events (grade 3 or 4) more commonly associated with the use of higher doses of interleukin-2 (IL-2). There were no suspected unexpected serious adverse reactions, or SUSARs reported since the previous update on the first six patients earlier in 2021. Overall, in the cohort there were three events of cytokine release syndrome and one immune effector cell-associated neurotoxicity syndrome, or ICANS, event deemed to be possibly related to cNeT treatment. A previously disclosed case of encephalopathy was subsequently deemed unlikely related to cNeT treatment following an Independent Data and Safety Monitoring Committee, or IDSMC, review.

We observed two neurological serious adverse events, or SAEs, that were deemed SUSARs related or possibly related to ATL001. The first was an instance of 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 data from these first six patients was conducted by an 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 two subsequent reviews of this case with the IDSMC (March 15, 2021 and April 12, 2021). 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 of cNeT, the late progression of the neurotoxicity beyond the time that engraftment was no longer detected, the lack of preferential expression of any of the cNeT target antigens in the brain and the lack of evidence of T cell-mediated neuropathology within the brain at post mortem. They recommended we continue both trials with no required modifications.

cNeT Activity

We observed stable disease at six-weeks post-dosing in five out of the eight patients and progressive disease in three patients. One patient had a reduction in the size of two of their four tumor lesions by approximately 55% and 90%, respectively. In 88% (7 of 8) of the cNeT products dosed, we observed tumor reactivity to individual patient-specific mutated peptides. In these seven products, the number of individual reactivities ranged from two to twenty-eight and cNeT were detected in the blood of 71% (5 of 7) of the patients following infusion at time points up to six weeks post dosing. 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 standard 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 and any associations with clinical outcomes in subsequent patients that we plan to treat with higher cNeT doses.

Next Steps

Based on these initial results from the CHIRON and THETIS clinical trials and work from our product development laboratories, we submitted the necessary regulatory filings to use a modified manufacturing process incorporating additional cytokines that we believe will yield higher cNeT doses that we call VELOS Process 2. Enrollment of patients for the higher cNeT dose process commenced in the fourth quarter of 2021 in the UK. We expect initial data from 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 dosing in the first half of 2022 with initial data 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 that include advanced HNSCC, RCC, TNBC and bladder cancer. Each of these indications is 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.

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.

Our investigational new drug application, or IND, for HNSCC was accepted by the FDA in January 2022 for VELOS Process 1 manufacturing and we expect to make additional submissions for our other earlier stage programs in the future.

Head and neck squamous cell carcinoma

In the U.S., there are approximately 67,000 new cases of HNSCC diagnosed and 15,000 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 76,000 new cases and almost 14,000 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 the U.S., there are approximately 284,000 diagnoses of invasive breast cancer each year 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.

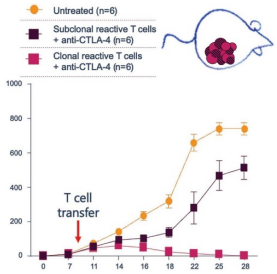
Bladder cancer

In the U.S., there are approximately 84,000 new cases and 17,000 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

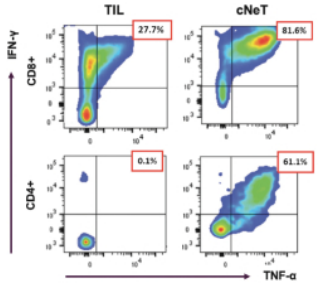


FIGURE A

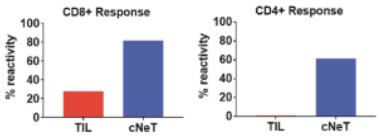


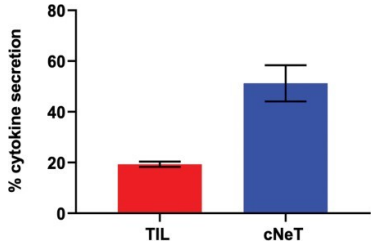
FIGURE B

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.

Our MAP network has delivered more than 100 samples from 14 active sites in the UK, EU and U.S., with 25 tumor procurement channels, in 6 tumor indications including lung, melanoma, head and neck, renal, bladder and breast. We refer to each tumor type that can be collected at a site as a separate procurement channel so one site provides either one or multiple procurement channels. 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.

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 at the Cell and Gene Therapy Catapult Manufacturing Centre in Stevenage and pay Catapult to support GMP operations at the manufacturing facility. Activities for licensing this site are ongoing and we anticipate the site being licensed in the second quarter of 2022.

Additionally, we lease a warehouse in west London, where we expect to construct a flexible GMP modular facility, to scale our manufacturing footprint where modular 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 2021 to 1,250 doses per year by 2026 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.

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 provides 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., or Iovance, Adaptimmune Therapeutics PLC, Autolus Therapeutics PLC, Instil Bio, Inc., or Instil, Pact Pharma, Inc., Neogene Therapeutics, B.V., BioNTech SE, Turnstone Biologics Corp., Genocea Biosciences, Inc., Obsidian Therapeutics, Inc. and KSQ Therapeutics, Inc. In particular, Iovance and Instil are developing TIL therapies for treatment of various cancers, including melanoma, which will compete directly with our product candidate, ATL001, in the relevant indication.

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.

LICENSE AGREEMENT WITH CANCER RESEARCH TECHNOLOGY LIMITED

In May 2016, we entered into a License Agreement, or the License Agreement, with Cancer Research Technology Limited, or CRT, pursuant to which we obtained access rights to intellectual property and know-how from the TRACERx Study. Under the License Agreement, we were granted an exclusive, sublicensable license to the TRACERx patents and bioinformatic data for use in: (i) the therapeutic field of neoantigen cell therapies and adoptive cell transfer; and (ii) the neoantigen diagnostic field, for use in research and the potential development of products for commercialization. We were further granted, during the vaccine option period, an exclusive license to the TRACERx

patents and the bioinformatic data in the private neoantigen therapeutic vaccine field for research and development but not in the development of products for commercial sale, and a non-exclusive license to the same in the public neoantigen therapeutic vaccine field. 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 patents 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. Under the License Agreement, we hold an option to exploit products in the therapeutic vaccine field, or the Vaccine Option. In March 2021, we extended the Vaccine Option from May 2021 to May 2023 with a payment of less than £0.1 million or $0.1 million.

In May 2018, we 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, November 2020 and March 2021.

Upon execution of the License Agreement, we granted CRT 396,125 B ordinary shares and 67,793 C ordinary shares. The C ordinary shares granted to CRT were forfeited and transferred to the deferred shares during the year ended December 31, 2019, as the applicable performance conditions were not met. The B ordinary shares granted to CRT were converted into ordinary shares upon IPO. We recorded $0.3 million of IP research and development expense in 2016. 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 £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, we 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. We have 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. We 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 of our ordinary shares; (iii) we undergo an initial public offering; or (iv) we are acquired by a third party for more than £25.0 million. Upon IPO, we gave notice to CRT to exercise the option to acquire the TRACERx patents with no consideration in accordance with the terms of the License Agreement. The acquisition was not finalized as of December 31, 2021.

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 international (PCT) patent application filed at the European Patent Office, or EPO, 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 national/regional patent application derived from this international patent application, such a patent would be expected to expire in 2041, 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 includes a pending U.S. patent application and eight foreign patent applications 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 international (PCT) patent application filed at the EPO, with claims directed to a tumor sample collection and disaggregation device. If a patent were to issue from a national/regional patent application derived from this international patent application, such a patent would be expected to expire in 2041, 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 UK Intellectual Property Office, or UKIPO, with claims directed to a method of determining whether a tumor-specific mutation is likely to be clonal in a subject. 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 2042 (provided it is timely filed in 2022), 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 batch release assay for a pharmaceutical product comprising T cells. 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 2042 (provided it is timely filed in 2022), 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 method of producing a population of T cells which comprises antigen-specific T cells. 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 2042 (provided it is timely filed in 2022), 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 blood collection 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 2042 (provided it is timely filed in 2022), 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 an Independent Data Safety and Monitoring Committee, or IDSMC, 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 may 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 generally requires, unless otherwise informed by the agency, pre-approval of promotional materials for products receiving accelerated approval, 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. Manufacturers and other parties involved in the drug supply chain for prescription drug products must also comply with product tracking and tracing requirements and for notifying the FDA of counterfeit, diverted, stolen and intentionally adulterated products or products that are otherwise unfit for distribution in the United States. 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, implementation and the ultimate 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 has replaced the former Clinical Trials Directive 2001/20/EC. It overhauls the current system of approvals for clinical trials in the EU. Specifically, the new regulation, which is 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. The new Clinical Trials Regulation (EU) No 536/2014 came into effect on January 31, 2022.

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 United Kingdom and European Union. 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 became 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 automatically became Great Britain marketing authorizations on January 1, 2021, unless the marketing authorization holder opted 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 became 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 the 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. On June 17, 2021, the U.S. Supreme Court dismissed the most recent judicial challenge to the ACA without specifically ruling on the constitutionality of the ACA. Prior to the Supreme Court's decision, President Biden issued an executive order to initiate a special enrollment period from February 15, 2021 through August 15, 2021 for purposes of obtaining health insurance coverage through the ACA marketplace. The executive order also instructed 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 other healthcare reform measures of the Biden administration or other efforts, if any, to challenge, repeal or replace the ACA will impact 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. These reductions went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030, with the exception of a temporary suspension from May 1, 2020 through March 31, 2022. Then, a 1% payment reduction will occur beginning April 1, 2022 through June 30, 2022, and the 2% payment reduction will resume on July 1, 2022. 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. At a federal level, President Biden signed an Executive Order on July 9, 2021 affirming the administration's policy to: (i) support legislative reforms that would lower the prices of prescription drug and biologics, including by allowing Medicare to negotiate drug prices, by imposing inflation caps, and, by supporting the development and market entry of lower-cost generic drugs and biosimilars; and (ii) support the enactment of a public health insurance option. Among other things, the Executive Order also directs HHS to provide a report on actions to combat excessive pricing of prescription drugs, enhance the domestic drug supply chain, reduce the price that the Federal government pays for drugs, and address price gouging in the industry; and directs the FDA to work with states and Indian Tribes that propose to develop section 804 Importation Programs in accordance with the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, and the FDA's implementing regulations. FDA released such implementing regulations on September 24, 2020, which went into effect on November 30, 2020, providing guidance for states to build and submit importation plans for drugs from Canada. On September 25, 2020, CMS stated drugs imported by states under this rule will not be eligible for federal rebates under Section 1927 of the Social Security Act and manufacturers would not report these drugs for "best price" or Average Manufacturer Price purposes. Since these drugs are not considered covered outpatient drugs, CMS further stated it will not publish a National Average Drug Acquisition Cost for these drugs. If implemented, importation of drugs from Canada may materially and adversely affect the price we receive for any of our product candidates. Further, on November 20, 2020 CMS issued an Interim Final Rule implementing the Most Favored Nation, or MFN, Model under which Medicare Part B reimbursement rates would have been be calculated for certain drugs and biologicals based on the lowest price drug manufacturers receive in Organization for Economic Cooperation and Development countries with a similar gross domestic product per capita. However, on December 29, 2021 CMS rescinded the Most Favored Nations rule. Additionally, on November 30, 2020, HHS published a regulation removing safe harbor protection for price reductions from pharmaceutical manufacturers to plan sponsors under Part D, either directly or through pharmacy benefit managers, unless the price reduction is required by law. The rule also creates a new safe harbor for price reductions reflected at the point-of-sale, as well as a safe harbor for certain fixed fee arrangements between pharmacy benefit managers and manufacturers. Pursuant to court order, the removal and

addition of the aforementioned safe harbors were delayed and recent legislation imposed a moratorium on implementation of the rule until January 1, 2026. Although a number of these and other proposed measures may require authorization through additional legislation to become effective, and the Biden administration may reverse or otherwise change these measures, both the Biden administration and Congress have indicated that they will continue to seek new legislative measures to control drug costs.

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.

Secarna License

On October 20, 2021, we entered into an agreement, or the Secarna Agreement, with Secarna Pharmaceuticals GmbH & Co. KG, or Secarna, whereby Secarna granted us a non-exclusive worldwide license under certain patent and other intellectual property rights, to use the Secarna technology in the ex vivo manufacture of a T cell pharmaceutical product.

We are obligated to pay Secarna development milestone payments up to a maximum aggregate of €6.5 million and one-time commercial milestone payments up to €26.0 million, as well as tiered low-single digit percentage royalty payments on net sales of products, subject to certain customary reductions. The royalty obligations continue 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) ten years from the first commercial sale of the product. For the year ended December 31, 2021, we recorded expenses of €0.7 million related to the Secarna Agreement.

Unless terminated earlier, the term of the Secarna 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 Secarna 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 60 day remedy period.

C. Organizational Structure.

As of December 31, 2021, we had three subsidiaries. The following table sets out for our principal subsidiaries, country of incorporation and percentage ownership and voting interest held by us (directly or indirectly through subsidiaries).

Company	Country of incorporation	Percentage ownership and voting interest
Achilles Therapeutics Holdings Limited	England and Wales	100.00%
Achilles Therapeutics UK Limited	England and Wales	100.00%
Achilles Therapeutics US, Inc.	United States	100.00%

D. Property, Plant and Equipment.

Our corporate headquarters are located in Hammersmith Road, London in the United Kingdom, where we currently lease a facility containing our research and development, laboratory and office space, which consists of approximately 25,000 square feet. Our lease expires in 2030 with a break clause in 2025.

We lease a facility in Philadelphia, United States containing research and development, laboratory and office space, which consists of approximately 7,000 square feet. Our lease expires in 2024.

We also lease a warehouse in west London that expires in 2030 with approximately 64,000 square feet. We expect to construct a flexible GMP modular facility to scale up our manufacturing footprint at this location.

We have other smaller leases that are primarily used for office and laboratory space. See Note 9, “Leases,” to our financial statements appearing at the end of this Annual Report, for further discussion.

We believe that our current facilities are adequate for our current needs and that suitable additional or substitute space at commercially reasonable terms will be available as needed to accommodate any future expansion of our operations.

Item 4A. Unresolved Staff Comments.

None.

Item 5. Operating and Financial Review and Prospects.

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and related notes appearing elsewhere in this Annual Report. 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 Item 3.D. “Risk Factors” and “Special Note Regarding Forward-Looking Statements” in this Annual Report. Our actual results could differ materially from the results described in or implied by these forward- looking statements.

We maintain our books and records in pounds sterling, our results are subsequently converted to U.S. dollars and we prepare our consolidated financial statements in accordance with generally accepted accounting principles in the United States, or U.S. GAAP, as issued by the Financial Accounting Standards Board, or FASB. All references in this Report to “$” are to U.S. dollars and all references to “£” are to pounds sterling. Unless otherwise indicated, certain U.S. dollar amounts contained in this Report have been translated into pounds sterling at the rate of £1.00 to $1.3497 on December 31, 2021. These translations should not be considered representations that any such amounts have been,

could have been or could be converted into pounds sterling at that or any other exchange rate as of that or any other date.

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

A. Operating Results.

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-reactive 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. We have principally raised capital through the issuance and sale of our convertible preferred shares to outside investors and sales of ADSs through our IPO. Through December 31, 2021, we had received net cash proceeds of $230.9 million from investors in our preferred shares financings and $160.6 million from sales of ADS through our IPO.

We have incurred significant operating losses since inception. We incurred total net losses of $61.1 million, $33.2 million and $14.0 million for the years ended December 31, 2021, 2020 and 2019, respectively. As of December 31, 2021, we had an accumulated deficit of $119.1 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 expenditure will increase substantially in connection with our ongoing activities, particularly 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 operations as a public 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, 2021, we had cash and cash equivalents of $266.3 million. We believe our existing cash and cash equivalents will enable us to fund our operating expenses and capital expenditure requirements into the second half of 2024. See "—Liquidity and Capital Resources—Funding Requirements" below.

Impact of the On-Going 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 on-going 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, clinical trials and 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. As a result of the COVID-19 pandemic, we have experienced delays in 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 and may continue to do so. 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.

CRT License

In May 2016, we entered into a License Agreement, or the License Agreement, with Cancer Research Technology Limited, or CRT, pursuant to which we obtained access rights to intellectual property and know-how from the 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 therapeutic field of neoantigen cell therapies and adoptive cell transfer; and (ii) the neoantigen diagnostic field, for use in research and the potential development of products for commercialization. We are further granted, during the vaccine option period, an exclusive license to the TRACERx patents and the bioinformatic data in the private neoantigen therapeutic vaccine field for research and development but not in the development of products for commercial sale, and a non-exclusive license to the same in the public neoantigen therapeutic vaccine field. 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. Under the License Agreement, we hold an option to exploit products in the therapeutic vaccine field, or the Vaccine Option. In March 2021, we extended the Vaccine Option from May 2021 to May 2023 with a payment of less than £0.1 million or $0.1 million.

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, November 2020 and March, 2021.

Upon execution of the License Agreement, we granted CRT 396,125 B ordinary shares and 67,793 C ordinary shares. The C ordinary shares granted to CRT were forfeited and transferred to the deferred shares during the year ended December 31, 2019, as the applicable performance conditions were not met. The B ordinary shares granted to CRT were converted into ordinary shares upon IPO. The Company recorded $0.3 million of IP research and development expense in 2016. 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 £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, we may also elect to provide other cash consideration at fair market value and forgo the milestone or royalty payment.

Less than $0.1 million of expenses were recorded for the year ended December 31, 2021 related to the CRT License Agreement. No expenses were recorded for the year December 31, 2020 related to the CRT License Agreement.

Secarna License

On October 20, 2021, we entered into an agreement, or the Secarna Agreement, with Secarna Pharmaceuticals GmbH & Co. KG, or Secarna, whereby Secarna granted us a non-exclusive worldwide license under certain patent and other intellectual property rights, to use the Secarna technology in the ex vivo manufacture of a T cell pharmaceutical product.

We are obligated to pay Secarna development milestone payments up to a maximum aggregate of €6.5 million ($7.4 million using a rate of €1.132 at December 31, 2021) and one-time commercial milestone payments up to €26 million ($29.4 million using a rate of €1.132 at December 31, 2021), as well as tiered low-single digit percentage royalty payments on net sales of products, subject to certain customary reductions. The royalty obligations continue 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) ten years from the first commercial sale of the product. For the year ended December 31, 2021, we recorded expenses of €0.7 million ($0.8 million using an average rate of €1.183 for the year ended December 31, 2021) related to the Secarna 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.

UK 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 head and neck, renal, 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 payments, royalty payments and maintenance fees payable to third parties with whom we have entered into license agreements.

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 and cash equivalents.

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 Item 11 - 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 UK corporation tax. As a company that carries out extensive research and development activities, we seek to benefit from one of two UK 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, 2020 and 2021. We claimed the tax credit in 2019 and 2020 which were paid in 2020 and 2021, respectively. We have claimed a tax credit for 2021, which we expect will be paid to us in 2022 from HMRC. We will continue to assess whether it is possible to qualify under the more favorable SME regime for future accounting periods.

Unsurrendered UK 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 UK taxable profits. After accounting for tax credits receivable, we had accumulated tax losses for carry forward in the UK of $71.0 million as of December 31, 2021. We have recorded an insignificant amount of income tax provisions for the year ended December 31, 2021, 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 UK and recorded as an offset to research and development expenses. The UK R&D 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 UK R&D 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 UK R&D tax credits generated are needed to offset a corporate income tax liability in the UK, 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 UK "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 VAT on 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.

Consolidated Results of Operations

Comparison of the Years Ended December 31, 2021 and 2020

The following table summarizes our consolidated results of operations for the years ended December 31, 2021 and 2020 (in thousands):

	Year ended December 31,		
	2021	**2020**	**Change**
Operating expenses:			
Research and development	$ 42,224	$ 22,629	$ 19,595
General and administrative	21,971	11,098	10,873
Total operating expenses	64,195	33,727	30,468
Loss from operations	(64,195)	(33,727)	(30,468)
Other income (expense), net:			—
Other income (expense)	3,133	531	2,602
Total other income (expense), net	3,133	531	2,602
Loss before provision for income taxes	(61,062)	(33,196)	(27,866)
Provision for income taxes	(37)	(3)	(34)
Net loss	$ (61,099)	$ (33,199)	$ (27,900)

Research and Development Expenses

The table below summarizes our research and development expenses incurred by program for the year ended December 31, 2021 and 2020 (in thousands):

	Year ended December 31,		
	2021	**2020**	**Change**
Direct research and development expense by program:			
NSCLC	$ 8,729	$ 5,432	$ 3,297
Melanoma	7,858	4,512	3,346
Other pre-clinical and technology development cost	6,710	2,984	3,726
Unallocated research and development expense:			
Personnel expenses	13,717	7,200	6,517
Other expenses	5,210	2,501	2,709
Total research and development expenses	$ 42,224	$ 22,629	$ 19,595

Research and development expenses were net of research and development tax credit reimbursement of $10.7 million and $5.8 million for the year ended December 31, 2021 and 2020, respectively. The net increase in research and development expenses was $19.6 million for the year ended December 31, 2021 compared to the year ended December 31, 2020. The net increase in direct research and development expense was primarily attributable to a net increase of $3.7 million in IND enabling activities primarily for new follow-on indications, as well as continuing research and development into enhancements to PELEUS, our bioinformatics platform, and our VELOS manufacturing process, a net increase of $3.3 million in our metastatic or recurrent melanoma program specifically in

relation to our ongoing Phase I/II THETIS clinical trial and a net increase of $3.3 million in our NSCLC program specifically in relation to our ongoing Phase I/II CHIRON clinical trial. Our unallocated research and development expense increased by $9.2 million for the year ended December 31, 2021, primarily as a result of increased costs of supporting the increased headcount in our research and development functions and their research efforts and increased facility costs due to the lease of new laboratory space.

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General and Administrative Expenses

The following table summarizes our general and administrative expenses for the year ended December 31, 2021 and 2020 (in thousands):

	Year ended December 31,		
	2021	**2020**	**Change**
Personnel expenses	$ 11,227	$ 6,835	$ 4,392
Professional services fees	3,424	2,273	1,151
Facilities and other expense	7,320	1,990	5,330
	$ 21,971	$ 11,098	$ 10,873

General and administrative expenses were $22.0 million for the year ended December 31, 2021, compared to $11.1 million for the year ended December 31, 2020. The increase of $10.9 million consisted primarily of an increase of $5.3 million in facilities and other expenses due to the lease of new office space and increased costs of supporting the expansion of our business, an increase of $4.4 million in personnel expenses due to an overall increase in headcount and the recognition of additional share-based compensation and an increase of $1.2 million in legal and professional fees due to activities related to becoming a public company.

Total Other Income (Expense), Net

Other income (expense), net was income of $3.1 million for the year ended December 31, 2021, compared to income of $0.5 million for the year ended December 31, 2020. The increase in other income of $2.6 million was primarily due to an increase in foreign exchange gains of $2.4 million.

Provision for Income Taxes

The provision for income taxes was less than $0.1 million for each of the years ended December 31, 2021 and 2020, which is related to income tax obligations of our operating company in the U.S., which generates a profit for tax purposes.

Comparison of the Years Ended December 31, 2020 and 2019

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

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

Research and Development Expenses

The table below summarizes our research and development expenses incurred by program for the year ended December 31, 2020 and 2019 (in thousands):

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

Research and development expenses were net of research and development tax credit reimbursement of $5.8 million and $3.1 million for the year ended December 31, 2020 and 2019, 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 expenses 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 $4.1 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, 2020 and 2019 (in thousands):

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

General and administrative expenses were $11.1 million for the year ended December 31, 2020, compared to $4.7 million for the year ended December 31, 2019. 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 $1.2 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.

B. 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. Through December 31, 2021, we had received net cash proceeds of $230.9 million from investors in our preferred shares financings and $160.6 million net proceeds from the sales of ADSs through our IPO after deducting underwriting discounts and commissions and other offering expenses. As of December 31, 2021, we had cash and cash equivalents of $266.3 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 manufacturing 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,		
	2021	2020	2019
Net cash used in operating activities	$ (59,284)	$ (25,252)	$ (14,142)
Net cash used in investing activities	(7,634)	(11,847)	(942)
Net cash provided by financing activities	160,755	113,704	93,622
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(5,334)	3,650	8,373
Net increase in cash	$ 88,503	$ 80,255	$ 86,911

Net Cash Used in Operating Activities

During the year ended December 31, 2021, net cash used in operating activities was $59.3 million, primarily resulting from our net loss of $61.1 million, adjusted for share-based compensation of $6.3 million, depreciation and amortization of $3.3 million The net loss also was adjusted by $7.4 million related to changes in components of working capital due to: (i) decreased accounts payable for payment of vendors' invoices; (ii) increased accrued research and development, increased accrued expenses incurred in relation to our IPO costs and increased accrued facility costs in conjunction with lease of new laboratory and office space; and (iii) increased prepaid expenses and other current assets in conjunction with accrued UK R&D tax credits. In addition, changes in other assets of $0.5 million primarily due to the capitalization of cloud-based implementation costs during the year ended December 31, 2021 increased cash used.

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.

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.

Net Cash Used in Investing Activities

During the years ended December 31, 2021, 2020 and 2019, net cash used in investing activities was $7.6 million, $11.8 million and $0.9 million, respectively, primarily driven by purchases of property and equipment related to lab equipment and leasehold improvements.

Net Cash Provided by Financing Activities

During the year ended December 31, 2021, net cash provided in financing activities was $160.8 million, primarily related to the net proceeds from sales of our ADSs through our IPO.

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.

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.

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, following our IPO, we 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 will enable us to fund our operating expenses and capital expenditure requirements into the second half of 2024. 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 increasing manufacturing infrastructure and facilities to capacity to support the manufacture of larger quantities of our product candidates for clinical development and potential commercialization globally;
- 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.

As of December 31, 2021, we are committed to make minimum payments of $13.2 million due for our office and laboratory space leases. See Note 9, "Leases," to our financial statements appearing at the end of this Annual Report for our annual expected payments under our operating lease obligations at December 31, 2021. In addition, we are committed to make payments of $7.4 million, with approximately $6.8 million to be made in 2022, for costs associated with our certain vendors, which we engaged to provide clinical trial materials and contractual commitments for capital expenditures. These purchase commitments included non-cancellable minimum quantities to be purchased as of December 31, 2021.

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 cancellable contracts and have not been included above.

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 and/or Secarna 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 above.

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 choose to 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:

- 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 our IPO 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) December 31, 2026, which is the last day of our fiscal year following the fifth anniversary of the date of the completion of our IPO; (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.

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, "Summary of significant accounting policies" to our financial statements appearing at the end of this Annual Report.

C. Research and Development, Patents and Licenses, etc.

Full details of our research and development activities and expenditures are given in Item 4.B. "Information on the Company—Business Overview" and Item 5.A. "Operating and Financial Review and Prospects—Operating Results" within this Annual Report.

D. Trend Information.

See Item 4.B. "Information on the Company—Business Overview," Item 5.A. "Operating and Financial Review and Prospects—Operating Results" and Item 5.B. "Operating and Financial Review and Prospects—Liquidity and Capital Resources" within this Annual Report.

E. Critical Accounting Estimates

Critical Accounting Policies and Significant Judgments and Estimates

Our consolidated 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 Annual Report, 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 Share Options

Prior to our IPO, the estimated fair value of the ordinary shares underlying our ADSs had been determined by our board of directors as of the date of each award grant, with input from management, considering our most recently available third-party valuations of our common stock 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. Subsequent to our IPO, the fair value of our ordinary shares underlying our ADSs is based on quoted market prices. 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 our IPO, our ordinary shares were not publicly traded, and therefore we estimated the fair value of our ordinary shares on the basis referred to above. Subsequent to the IPO, the fair value of each share option grant is estimated on the date of grant using the Black-Scholes option pricing model applying assumptions used in connection with share option grants made during the periods covered.

- 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 as there is a limited trading history of our ordinary shares, 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 have a limited 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.

Leases

Our right of use assets and lease liabilities associated with leases for leasehold properties are recognized at lease commencement date based on the present value of minimum lease payments over the lease term. Since the rate implicit in the lease is not readily determinable, we use the incremental borrowing rates based on indicative borrowing rates that would be available based on the value, currency and borrowing term provided by financial institutions, adjusted for company and market specific factors. This incremental borrowing rate is the rate of interest that we would have to pay to borrow on a collateralized basis an amount equal to the lease payments over a similar term in a similar economic environment, based on the information available at commencement date in determining the discount rate used to calculate the present value of lease payments. Although we do not expect our estimates of the incremental borrowing rate, or IBR, to generate material differences within a range of sensitivities, judgment is involved in selecting an appropriate rate and the rate selected for each lease will have an impact on the value of the right-of-use asset and corresponding lease liability in the consolidated balance sheets.

Item 6. Directors, Senior Management and Employees.

A. Directors and Senior Management.

The following table sets forth the name, age and position of our senior management and directors as of the date of this Annual Report. 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. Less than a majority of the directors of our board of directors are citizens or residents of the United States.

Name	Age	Position
Senior Management:		
Iraj Ali, Ph.D.	46	Chief Executive Officer and Director
Robert Coutts	38	Chief Financial Officer
Karl Peggs. M.D.	55	Chief Medical Officer
Sergio Quezada, Ph.D.	47	Chief Scientific Officer
Non—Executive Directors:		
Edwin Moses. Ph.D.(1)(2)(3)	67	Chairman of the Board of Directors Director
Michael F. Giordano. M.D. (2)(3)(4)	64	Director
Carsten Boess (1)(2)(3)	55	Director
Derek DiRocco. Ph.D.(1)	41	Director
Julie ONeill	55	Director

(1) Member of Audit Committee
(2) Member of Remuneration Committee
(3) Member of Nominating Committee
(4) Member of Research & Development Committee

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.

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.

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.

Julie O'Neill has served as a member of our board of directors since May 2021. Ms. O'Neill has more than two decades of executive experience in senior leadership roles. From January 2015 to September 2018, Ms. O'Neill served as Executive Vice President, Global Operations at Alexion Pharmaceuticals, Inc., or Alexion, a pharmaceutical company, where she led the Global Operations business including product development, manufacturing, quality, supply chain and global real estate functions. Prior to joining Alexion, she served as Vice President of Operations and General Manager of Ireland at Gilead Sciences, Inc., a pharmaceutical company, from 2011 to 2014. Ms. O'Neill serves as a member of the board of directors of ICON plc, DBV Technologies S.A. and Hookipa Pharma Inc. She is also on the Board of Ireland's National Institute for Bioprocessing Research & Training and serves on the Strategy Committee of the State Claims Agency in Ireland. We believe that Ms. O'Neill is qualified to serve on our board of directors because of her experience, qualifications, attributes and skills, including her extensive biotechnology experience.

Board Diversity

The table below provides certain information regarding the diversity of our board of directors as of the date of this Annual Report.

Board Diversity Matrix				
Country of Principal Executive Offices	United Kingdom			
Foreign Private Issuer	Yes			
Disclosure Prohibited under Home Country Law	No			
Total Number of Directors	6			
	Female	**Male**	**Non-Binary**	**Did Not Disclose Gender**
Part I: Gender Identity				
Directors	1	5	0	0
Part II: Demographic Background				
Underrepresented Individual in Home Country Jurisdiction	1			
LGBTQ+	1			
Did Not Disclose Demographic Background	0			

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Family Relationships

There are no family relationships among any of our executive officers or directors.

B. Compensation.

The following section provides the amount of compensation paid, and benefits in-kind granted, by us and our subsidiaries to our directors, members of our senior management and non-employee directors for services in all capacities to us and our subsidiaries for the year ended December 31, 2021.

Director Compensation

For the year ended December 31, 2021, the table below sets forth the compensation paid to our directors (in thousands):

Name	Salary/Fees	Bonus	Pension Benefit	All Other Compensation	Total
Executive Director					
Iraj Ali	$ 413	$ 157	$ 25	$ 1,243	$ 1,838
Non-Executive Directors					
Carsten Boess	$ 95	-	-	$ 109	$ 204
Derek Di Rocco	$ 56	-	-	$ 41	$ 97
Edwin Moses	$ 146	-	-	$ 347	$ 493
Julie O'Neill	$ 50	-	-	$ 41	$ 91
Michael Giordano	$ 83	-	-	$ 167	$ 250

Non-Executive Letters of Appointment

The compensation of our non-executive directors is determined by our board of directors as a whole, based, in part, on a review of current practices in other companies. We have entered into appointment letters with our non-executive directors and these agreements provide for an annual fee and a grant of share options under our share incentive plan arrangement. Non-Executive Directors are subject to re-election annually at the Annual General Meeting.

Employment Agreements

We have entered into employment agreements with our chief executive officer, or CEO, who is our sole executive director and the wider senior management. Each of these employment agreements provides for an initial annual salary, discretionary annual bonus opportunity and equity incentive opportunities, as well as participation in certain retirement and welfare benefit plans. The agreements provide payment in lieu of notice termination rights and we are required to give six months' prior written notice of a termination of employment. These agreements contain intellectual property and confidentiality provisions which survive termination and also contain 12-month non-competition and non-solicitation restrictive covenants.

Incentive Compensation Program

The board of directors maintains an annual incentive compensation program for all employees. The incentive compensation program is designed to offer incentive compensation to our employees by rewarding the achievement of company goals and specifically measured personal goals that are consistent with and support the achievement of the company goals. The key terms of the incentive compensation program are summarized below.

Administration and Eligibility. The board of directors is responsible for the oversight and administration of the incentive compensation program at a company level and manages this through delegation to the remuneration committee of the board. This remuneration committee is responsible for approving any incentive awards to our chief

executive officer and other members of our senior management. The CEO is responsible for approving any incentive awards to other employees, in accordance with parameters set by the remuneration committee.

Form and Determination of Incentive Awards. Incentive award payments are paid in cash. After the end of the plan year under review, the actual achievement of the company and individual goals is determined resulting in the calculation of the individual's total incentive award. Payment of incentive awards is made in February.

Termination of Employment. If a participant in the incentive compensation program gives or receives notice of termination of her or his employment prior to the payment of an incentive award under the incentive compensation program, the employee is not eligible to receive an incentive award.

Amendment. Our board of directors or the remuneration committee of the board, may abolish or alter the incentive compensation program at any time before, during or after a plan year is completed.

Outstanding Equity Awards

The following table summarizes the options that we granted to members of our board of directors and senior management during the year ended December 31, 2021:

	Ordinary Shares Underlying Option Covered		Exercise Price	Expiration Date
Senior Management:				
Iraj Ali	136,305	$	15.28	6/27/2031
Robert Coutts	51,796	$	15.28	6/27/2031
Karl Peggs	90,870	$	15.28	6/27/2031
Sergio Quezada	76,331	$	15.28	6/27/2031
Non-Executive Directors:				
Carsten Boess	15,000	$	15.28	6/27/2031
Derek DiRocco	15,000	$	15.28	6/27/2031
Michael Giordano	15,000	$	15.28	6/27/2031
Edwin Moses	15,000	$	15.28	6/27/2031
Julie O'Neill	15,000	$	15.28	6/27/2031

No options were exercised by any members of our board of directors and senior management during the year ended December 31, 2021.

Employee Shares and Options issued prior to IPO

Under our shareholder and subscription agreements, which were effective until the date of IPO, the Company was 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 us, 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. All Employee Shares converted into ordinary shares in accordance with the reverse share split implemented on IPO (see Note 1 to our financial statements appearing at the end of this Annual Report). The share options granted prior to IPO were granted pursuant to the terms of the 2020 Share Omnibus Plan, or the 2020 Plan.

Upon and following closing of the IPO, no further equity awards were granted under the 2020 Plan. To the extent outstanding options granted under the 2020 Plan are cancelled, forfeited or otherwise terminated without being exercised and would otherwise have been returned to the share reserve under the 2020 Plan, the number of shares underlying such awards will be available for future grant under our 2021 Omnibus Plan (see below). In anticipation of IPO, we and the holders of Employee Shares entered into individual vesting agreements, or Vesting Agreements, which apply the same terms to vesting of Employee Shares as applied prior to IPO under our pre-IPO Articles of

Association, except that following the IPO Employee Shares that would pre-IPO have converted to deferred shares, will be transferred back to us and cancelled within twelve months of an employee leaving employment with us.

2021 Share Omnibus Plan

In March 2021, our board of directors adopted, and our shareholders approved, the 2021 Share Omnibus Plan, or the 2021 Plan, which became effective upon the effectiveness of our Registration Statement on Form F-1 in connection with the IPO. 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).

We initially reserved 2,572,558 of our ordinary shares 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. This number is subject to adjustment in the event of a sub-division, consolidation, share dividend or other change in our capitalization. The total number of ordinary shares that may be issued under the 2021 Plan was 2,572,558 shares as of December 31, 2021, of which 1,578,993 shares remained available for future grant.

2021 Employee Share Purchase Plan

Our 2021 Employee Share Purchase Plan, or ESPP, was adopted by our board of directors in March 2021 and approved by shareholders in March 2021 and became effective upon the effectiveness of our Registration Statement on Form F-1 in connection with the IPO. The ESPP initially reserves and authorizes the issuance of 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 1, beginning on January 1, 2022 and each January 1 thereafter through January 1, 2022, by the least of (i) 1% of the outstanding number of ordinary shares on the immediately preceding December 31; (ii) 467,738 ordinary shares or (iii) such number of shares as determined by the remuneration committee. The number of shares reserved under the ESPP is subject to change in the event of a share split, share dividend or other change in our capitalization. The total number of ordinary shares that may be issued under the ESPP was 467,738 shares as of December 31, 2021, of which 467,738 shares remained available for future grant. As of December 31, 2021, the initial purchase period under the ESPP had not yet commenced.

Employee Shares

We typically grant 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, and the balance vesting periodically over the remaining three years.

Unvested Employee Shares are forfeited upon the giving or receiving of notice of termination of employment or service relationship in accordance with our Articles (prior to IPO, and in accordance with the Vesting Agreements post-IPO) and 2020 Plan. Before IPO, the forfeited shares were converted into deferred shares, with a repurchase right for a nominal amount in favor of us. As of December 31, 2020, we repurchased 1,509,384 deferred shares with the consideration of £0.01 to each holder for all of the deferred shares held by that holder. As part of our reorganization, 109,058 outstanding deferred shares immediately before the IPO were cancelled upon IPO, and a single deferred share with a nominal value of £92,451.851 in the capital of the Company was created. As of December 31, 2021, we had one deferred share which could be repurchased by us at any time for nil consideration.

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

IPO Grants

In connection with our IPO and in the ordinary course thereafter, our board of directors granted awards under the 2021 Plan to certain of our employees, representing an aggregate of 897,243 ordinary shares. These awards are one-time

grants solely related to the IPO offering and the number of ordinary shares subject to the awards described above were priced at a premium to the market at the time of grant. The exercise price of these options was set at $15.28. Each award is subject to the terms and conditions of the 2021 Plan and an option award agreement entered into with the applicable grantee.

C. Board Practices.

Composition of our Board of Directors

Our board of directors presently has six members. As a foreign private issuer, under the listing requirements and rules of Nasdaq, we are not required to have independent directors on our board of directors, except that our audit committee is required to consist fully of independent directors. However, our board of directors has determined that Dr. Moses, Mr. Boess, Mr. Giordano, Ms. O'Neill and Dr. DiRocco, representing five of our six directors, do not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of director and that each of these directors is "independent" as that term is defined under Nasdaq rules.

In accordance with our Articles of Association, our board of directors will consist of one class of directors constituting our entire board. At each annual general meeting, the successors to directors will be elected to serve from the time of election and qualification until the subsequent annual meeting following election. Each director shall serve until his or her successor is duly elected and qualified or until his or her earlier death, resignation or removal.

Committees of our Board of Directors

Our board of directors has three standing committees: an audit committee, a remuneration committee and a nominating committee. The board has adopted a written charter for each of the committees below that is available to shareholders on our website at https://www.achillestx.com.

Audit Committee

The audit committee is composed of Mr. Boess (chairman), Dr.. Moses and Dr.. DiRocco, and assists the board of directors in overseeing our accounting and financial reporting processes. The audit committee consists exclusively of members of our board who are financially literate, and our board of directors has determined that Mr. Boess is an "audit committee financial expert" as defined by applicable SEC rules and has the requisite financial sophistication as defined under the applicable Nasdaq rules and regulations. Our board of directors has determined that each member of the audit committee is an independent director under Nasdaq listing rules and under Rule 10A-3 under the Exchange Act. Our audit committee meets at least four times per year and oversees and reviews our internal controls, accounting policies and financial reporting, and provides a forum through which our independent registered public accounting firm reports. Our audit committee meets regularly with our independent registered public accounting firm without management present.

The primary functions of the audit committee include:

- recommending the appointment of the independent auditor to shareholders for approval at 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;
- 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

The remuneration committee is composed of Dr. Moses (chairman), Mr. Boess and Dr. Giordano. Under SEC and Nasdaq rules, there are heightened independence standards for members of the compensation committee, including a prohibition against the receipt of any compensation from us other than standard board member fees. Although foreign private issuers are not required to meet this heightened standard, all of our compensation committee members meet this heightened standard.

The primary functions of the compensation committee include:

- identifying, reviewing, overseeing and proposing policies relevant to the compensation and benefits of our directors and senior management;
- evaluating the performance of senior management in light of such policies and reporting to the board; and
- overseeing and administering our share option plan, equity incentive plan and other benefit plans in operation from time to time.

Nominating Committee

The nominating committee is composed of Dr.. Moses (chairman), Mr. Boess and Mr. Giordano.

The primary functions of the nominating committee include:

- drawing up selection criteria and appointment procedures for directors; and
- recommending nominees for appointment to our board of directors and its corresponding committees.

D. Employees.

We have made significant investments in our business to support future growth, including a substantial increase in our global employee base. As of December 31, 2021, 2020 and 2019, we had 252, 159 and 75 employees, respectively

	As of December 31,		
	2021	2020	2019
Function:			
General and administrative	42	30	12
Research and development	210	129	63
Total	252	159	75
Geography:			
United Kingdom	243	157	75
United States	9	2	—
Total	252	159	75

We have no collective bargaining agreements with our employees and we have not experienced any labor strikes.

E. Share Ownership.

For information regarding the share ownership of our directors and executive officers, please refer to Item 6.B. “Directors, Senior Management and Employees—Compensation,” Item 7.A. “Major Shareholders and Related Party Transactions—Major Shareholders” and Item 7.B. “Major Shareholders and Related Party Transactions—Related Party Transactions.”

Item 7. Major Shareholders and Related Party Transactions.

A. Major Shareholders.

The following table sets forth information, as of February 1, 2022, regarding the beneficial ownership of our ordinary shares for:

- each beneficial owner of 5% or more of our outstanding ordinary shares;
- each of our directors and members of senior management; and
- all of our directors and senior management 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 1, 2022. In computing the number of shares beneficially owned by a person and the percentage ownership of such person, we deemed to be outstanding all shares subject to options held by the person that are currently exercisable or are exercisable within 60 days of February 1, 2022 or issuable upon the conversion of Class A ordinary shares held by the person. However, except as described above, we did not deem such shares outstanding for the purpose of computing the percentage ownership of any other person.

The percentage of shares beneficially owned is computed on the basis of 38,987,122 ordinary shares outstanding (including ordinary shares in the form of ADS calculated as set out above) as of February 1, 2022.

To our knowledge, as of February 24, 2022, 38,987,122 ADSs were held by one record holder in the United States, representing approximately 96.02% of our total outstanding shares. The record holder is The Bank of New York Mellon, the depositary of our ADS program. The number of beneficial owners of our ADSs in the United States is likely to be much larger than the number of record holders of our ADSs in the United States.

Except as otherwise indicated, all of the shares reflected in the table are ordinary shares, which may be in the form of ADSs, and all persons listed below have sole voting and investment power with respect to the shares beneficially owned by them, subject to applicable community property laws. The information is not necessarily indicative of beneficial ownership for any other purpose.

Except as otherwise indicated in the table below, the address of each of the directors, executive officers and named beneficial owners is c/o Achilles Therapeutics plc, 245 Hammersmith Road, London, W6 8PW, United Kingdom.

NAME OF BENEFICIAL OWNER	Number of Ordinary Shares Beneficially Owned (#)	Percentage of Ordinary Shares Beneficially Owned (#)
5% or Greater Shareholders:		
Syncona Portfolio Limited(1)	11,086,909	28.44%
Entities affiliated with RA Capital Management, L.P.(2)	5,014,687	12.86%
Forbion Capital Fund IV Cooperatief U.A.(3)	2,390,050	6.13%
Entities affiliated with Baker Bros. Advisors LP(4)	4,039,480	9.99%
Entities affiliated with Invus Public Equities, L.P.(5)	2,255,375	5.78%
Entities affiliated with Redmile Group, LLC(6)	2,088,089	5.36%
Executive Officers and Directors:		
Iraj Ali	844,631	2.17%
Robert Coutts	132,657	*
Karl Peggs	453,686	1.16%
Sergio Quezada	302,860	*
Edwin Moses	226,250	*
Carsten Boess(7)	35,874	*
Derek DiRocco		*
Michael Giordano(8)	108,553	*
Julie O'Neill		*
All directors and senior management as a group (9 persons)	2,104,511	5.38%

* Represents beneficial ownership of less than one percent.

1. The information shown is based, in part, upon disclosures filed on a Schedule 13G/A on February 11th, 2022 by Syncona Portfolio Limited. 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 Martin Murphy and Chris Hollowood. For the purposes of Section 13 of the Securities Exchange Act 1934 and the associated SEC Schedule 13G form reporting requirement, each of these entities and individuals disclaims beneficial ownership of these shares except to the extent of any pecuniary interest therein. Martin Murphy, who was formerly a member of our board of directors, is the chief executive officer of Syncona Investment Management Limited. The address for Syncona Investment Management Limited is 2nd Floor, 8 Bloomsbury Street, London WC1B 3SR. The address for Syncona Portfolio Limited is Arnold House, St Julian's Avenue, St Peter Port, Guernsey GY1 3RD.

2. Based on information reported by RA Capital Management, L.P. (the "Adviser"). Consists of (i) 4,050,972 Ordinary Shares held by RA Capital Healthcare Fund, L.P. ("RA Healthcare") and (ii) 963,715 Ordinary Shares held by RA Capital Nexus Fund, L.P. ("RA Nexus"). The Adviser is the investment manager for RA Healthcare and RA Nexus. Derek DiRocco, a Partner at the Adviser, is a member of our board of directors. The general partner of the Adviser is RA Capital Management GP, LLC, (the "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 Healthcare and RA Nexus. The Adviser, the Adviser GP, Dr. Kolchinsky, and Mr. Shah disclaim beneficial ownership of such shares, except to the extent of their pecuniary interest therein. The address for the entities listed above is 200 Berkeley Street, 18th Floor, Boston, Massachusetts 02116.

3. The information shown is based, in part, upon disclosures filed on a Form 13G/A on February 11, 2022 by Forbion Capital Fund IV Coöperatief 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, who was formerly 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 their pecuniary interest therein. The address of FCFIV and Forbion Management are Gooimeer 2-35, 1411 DC Naarden, The Netherlands.

4. The information shown is based, in part, upon disclosures filed on a Form 13F on February 14, 2022 by Baker Bros. Advisors LP, and in part upon disclosures filed on a Form 13G/A on February 14, 2022 by Baker Bros. Advisors LP. The number consists of 2,591,366 Ordinary Shares and 1,448,144 Class A non-voting shares. The Class A non-voting ordinary shares are only convertible to the extent that after giving effect to such conversion the holder thereof, their affiliates and any persons who are members of a Section 13(d) group with the holders or their affiliates would beneficially own in the aggregate, for purposes of Rule 13d-3 under the Exchange Act, no more than 9.99% of the outstanding Ordinary Shares ("Beneficial Ownership Limitation"). By written notice to the Company, each holder of Class A non-voting ordinary shares may from time to time increase the Beneficial Ownership Limitation, applicable to that holder to any other percentage not in excess of 19.9%. Any such increase will not be effective until the 61st day after such notice is delivered to the Company. As a result of this restriction, the number of Ordinary Shares that may be issued upon conversion of the Class A non-voting ordinary shares by the above holders may change depending upon changes in the outstanding Ordinary Shares. 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. Invus Public Equities Advisors, LLC ("Invus PE Advisors"), as the general partner of Invus Public Equities, L.P., controls Invus Public Equities, L.P. and, accordingly, may be deemed to beneficially own the Shares held by Invus Public Equities, L.P.. The Geneva branch of Artal International S.C.A. ("Artal International"), as the managing member of Invus PE Advisors, controls Invus PE Advisors and, accordingly, may be deemed to beneficially own the Shares that Invus PE Advisors may be deemed to beneficially own. Artal International Management S.A. ("Artal International Management"), as the managing partner of Artal International, controls Artal International and, accordingly, may be deemed to beneficially own the Shares that Artal International may be deemed to beneficially own. Artal Group S.A. ("Artal Group"), as the sole stockholder of Artal International Management, controls Artal International Management and, accordingly, may be deemed to beneficially own the Shares that Artal International Management may be deemed to beneficially own. Westend S.A. ("Westend"), as the parent company of Artal Group, controls Artal Group and, accordingly, may be deemed to beneficially own the Shares that Artal Group may be deemed to beneficially own. Stichting Administratiekantoor Westend ("The Stichting"), as the majority stockholder of Westend, controls Westend and, accordingly, may be deemed to beneficially own the Shares that Westend may be deemed to beneficially own. Mr. Amaury Wittouck, as the sole member of the board of the Stichting, controls the Stichting and, accordingly, may be deemed to beneficially own the Shares that the Stichting may be deemed to beneficially own. The address for both Invus Public Equities, L.P. and Invus Public Equities Advisors, LLC is 750 Lexington Avenue 30th Floor New York, NY 10022 United States.

6. The information shown is based, in part, upon disclosures included on a Schedule 13G filed on February 14th, 2022 by Redmile Group, LLC. Redmile Group, LLC's beneficial ownership of the Company's American Depositary Shares, each representing one Ordinary Share £0.001 par value ("ADSs"), is owned by certain private investment vehicles managed by Redmile Group, LLC, which ADSs may be deemed beneficially owned by Redmile Group, LLC as investment manager of such private investment vehicles. The reported securities may also be deemed beneficially owned by Jeremy C. Green as the principal of Redmile Group, LLC. Redmile Group, LLC and Mr. Green each disclaim beneficial ownership of these shares, except to the extent of its or his pecuniary interest in such shares, if any. The address for this beneficial owner is c/o Redmile Group, LLC, 1 Letterman Drive, Building D Suite D3-300, San Francisco, CA 94129.

7. Consists of 35,874 of our ordinary shares issuable upon exercise of options within 60 days of February 1, 2022.

8. Consists of: (i) 46,663 of our ordinary shares; and (ii) 61,890 of our ordinary shares issuable upon exercise of options within 60 days of February 1, 2022.

B. 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 elsewhere in this document, since January 1, 2018, we have engaged in the transactions set out below 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'.

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 terminated upon the consummation of our IPO, except for the registration rights granted under our registration rights agreement, as more fully described in our prospectus dated March 30, 2021, filed with the SEC pursuant to Rule 424(b), under the heading "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.

Private Placements of Securities

All shares issued by the Company prior to our IPO were converted on IPO into ordinary shares, class A ordinary shares or deferred shares.

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 related persons, 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
F 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 served as a member of our board of directors until June 28, 2021 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 related persons, 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 served as a member of our board of directors until immediately prior to the closing of our initial public 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 served as a member of our board of directors until June 28, 2021 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.

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 terminated upon the consummation of our initial public offering, except for the registration rights granted under our registration rights agreement, as more fully described in our prospectus dated March 30, 2021, filed with the SEC pursuant to Rule 424(b), under the heading "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, and 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 and officers. 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

To the extent permitted by the Companies Act 2006 and in accordance with our Articles of Association, we are empowered to indemnify our directors against any liability they incur by reason of their role. Prior to the completion of our IPO, we obtained and maintain directors' and officers' insurance to insure such persons against certain liabilities. We entered into a deed of indemnity with each of our directors, members of our senior management and

other officers. These agreements and our Articles of Association require us to indemnify our directors, members of our senior management and other officers to the fullest extent permitted by law.

Participation in our Initial Public Offering

In March 2020, we sold an aggregate of 9,750,000 ADSs in our initial public offering at a price of $18.00 per ADS. Certain related parties made purchases of our ADSs in our initial public offering as follows:

Shareholder	Number of ADSs	Total purchase price
RA Capital Management, LP	1,388,888	$ 24,999,984
Forbion Capital Fund IV	275,000	4,950,000
Baker Bros. Advisors LP	975,000	17,550,000
Total	2,638,888	$ 47,499,984

Related Party Transaction Policy

We have adopted a related party transaction policy. This policy became effective on March 30, 2021, the date on which our registration statement on Form F-1 in connection with our IPO was declared effective by the SEC. 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 is 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.

C. Interests of Experts and Counsel.

Not applicable.

Item 8. Financial Information.

A. Consolidated Statements and Other Financial Information.

Consolidated Financial Statements

Our consolidated financial statements are included at the end of this Annual Report in "Item 18.Financial Statements."

Legal Proceedings

From time to time, we are subject to various legal proceedings and claims that arise in the ordinary course of our business activities. Although the results of litigation and claims cannot be predicted with certainty, as of the date of this report, we do not believe we are party to any claim or litigation, the outcome of which, if determined adversely to us, would individually or in the aggregate be reasonably expected to have a material adverse effect on our business. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

Within the past twelve months, we have not been party to any litigation, arbitration proceedings or administrative proceedings that may have a material effect on our financial condition or profitability, and we are not aware of any such proceedings pending or being threatened.

Dividend Distribution Policy

We have not paid any dividends on our ordinary shares since our inception, and we currently intend to retain any future earnings to finance the growth and development of our business. Therefore, we do not anticipate that we will declare or pay any cash dividends in the foreseeable future. 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.

B. Significant Changes.

Not applicable.

Item 9. The Offer and Listing.

A. Offer and Listing Details.

Our ADSs have been listed on Nasdaq Global Select Market under the symbol "ACHL" since March 31, 2021. Prior to that date, there was no public trading market for our ADSs.

B. Plan of Distribution.

Not applicable.

C. Markets.

Our ADSs have been listed on Nasdaq Global Select Market under the symbol "ACHL" since March 31, 2021.

D. Selling Shareholders.

Not applicable.

E. Dilution.

Not applicable.

F. Expenses of the Issue.

Not applicable.

Item 10. Additional Information.

A. Share Capital.

Not applicable.

B. Memorandum and Articles of Association.

The information set forth in our prospectus dated March 30, 2021, filed with the SEC pursuant to Rule 424(b), under the headings "Description of share capital and articles of association—Issued share capital," "Description of share capital and articles of association—Ordinary shares," "Description of share capital and articles of association—Class A ordinary shares," "Description of share capital and articles of association—Deferred shares," "Description of share capital and articles of association—Registration rights," "Description of share capital and articles of association—Key provisions of our post-IPO articles of association," "Description of share capital and articles of association—Other relevant UK laws and regulations," "Description of share capital and articles of association—Differences in corporate law," and "Service of process and enforcement of liabilities" is incorporated herein by reference.

C. Material Contracts.

For additional information on our material contracts, please see the sections of this Annual Report titled "Item 4—Information on the Company," "Item 7.A.—Major Shareholders," and "Item 7.B.—Related Party Transactions."

D. Exchange Controls.

There are no governmental laws, decrees, regulations or other legislation in the United Kingdom that may affect the import or export of capital, including the availability of cash and cash equivalents for use by us, or that may affect the remittance of dividends, interest, or other payments by us to non-resident holders of our ordinary shares or ADSs, other than withholding tax requirements. There is no limitation imposed by the laws of England and Wales or our Articles of Association on the right of non-residents to hold or vote shares.

E. Taxation.

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.

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 Annual Report (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 UK 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

Dividend Distribution Policy

We have not paid any dividends on our ordinary shares since our inception, and we currently intend to retain any future earnings to finance the growth and development of our business. Therefore, we do not anticipate that we will declare or pay any cash dividends in the foreseeable future. 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.

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 2021/2022 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. The government has announced that dividend tax rates will increase by 1.25% from April 2022. The dividend tax-free allowance of £2,000 will remain unaffected. The new rates (expected to be legislated in Finance Bill 2022) will be: basic rate at 8.75%, higher rate at 33.75%, and additional rate at 39.35%.

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 2021/2022 rising to 25% in the tax year 2023/2024 for companies with profits of more than £250,000 whilst the rate of 19% will apply to companies with profits not exceeding £50,000 with a tapered rate applying to profits between £50,000 and £250,000).

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 the tax year 2021/2022). 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% (for the tax year 2021/2022), 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% (for the tax year 2021/2022).

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 would apply (currently at 19% for the tax year 2021/2022 rising to 25% in the tax year 2023/2024 for companies with profits of more than £50,000 whilst the rate of 19% will apply to companies with profits not exceeding £250,000 with a tapered rate applying to profits between £50,000 and £250,000).

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 UK 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 tax law and published HMRC practice, no SDRT (and, where the transfer is effected by a written instrument, stamp duty) is generally payable where, an issue or transfer of ordinary shares, including 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) is an integral part of an issue of share capital 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.

Any stamp duty or SDRT payable on a transfer of ordinary shares to a depositary receipt system or clearance service or in respect of a transfer within a depositary receipt system or clearance service, will strictly be accountable by the clearance service or depositary receipt system operator or their nominee, as the case may be, but 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 stamp duty or SDRT is payable on the issue of ADSs in the Company.

No UK SDRT should be required to be paid in respect of a paperless transfer of ADSs through the facilities of DTC, provided that no election under section 97A of the UK Finance Act 1986 has been made by DTC, and such ADSs are held through DTC at the time of any agreement for their transfer.

No UK stamp duty will in practice be payable on a written instrument transferring an ADS provided that the instrument of transfer is executed and remains at all times outside the United Kingdom. Where these conditions are not met, the transfer of, or agreement to transfer, an ADS could, depending on the circumstances, attract a charge to UK stamp duty at the rate of 0.5% of the amount or value of the consideration. If it is necessary to pay stamp duty, it may also be necessary to pay interest and penalties.

No UK stamp duty or SDRT should be required to be paid on the issue or transfer of (including an agreement to transfer) ADSs in the Company.

U.S. Taxation

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, 2021. 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, 2022. 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.

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 are 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.

F. Dividends and Paying Agents.

Not applicable.

G. Statement by Experts.

Not applicable.

H. Documents on Display.

We are subject to certain reporting requirements of the Exchange Act. As a "foreign private issuer," we are exempt from the rules under the Exchange Act prescribing certain disclosure and procedural requirements for proxy solicitations, and our officers, directors and principal shareholders are exempt from the reporting and "short-swing" profit recovery provisions contained in Section 16 of the Exchange Act, with respect to their purchases and sales of shares. In addition, we are not required to file reports and Financial Statements with the SEC as frequently or as promptly as companies that are not foreign private issuers whose securities are registered under the Exchange Act. However, we are required to file with the SEC, within 4 months after the end of each fiscal year, an Annual Report on Form 20-F containing Financial Statements audited by an independent accounting firm and interactive data

comprising Financial Statements in extensible business reporting language. We publish unaudited interim financial information after the end of each quarter. We furnish this quarterly financial information to the SEC under cover of a Form 6-K.

The SEC maintains a website at http://www.sec.gov that contains reports and other information regarding registrants that are required to file electronically with the SEC.

I. Subsidiary Information.

Not applicable.

Item 11. Quantitative and Qualitative Disclosures about Market Risk.

Market risk represents the risk that changes in market prices, such as foreign exchange rates, interest rates or equity prices, will affect Achilles's results of operations or the value of the financial instruments held. Achilles is exposed to both foreign currency exchange risk and interest rate risks.

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 gains of $2.5 million, foreign currency gains of $0.1 million and foreign currency losses of $0.4 million and for the year ended December 31, 2021, 2020 and 2019, 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.

Interest Rate Risk

As of December 31, 2021, we had cash and cash equivalents of $266.3 million. Our exposure to interest rate sensitivity is impacted by changes in the underlying UK and U.S. bank interest rates. Our surplus cash has been invested in interest-bearing savings accounts and money market funds 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, 2021 and 2020, we had no debt outstanding and are therefore not subject to interest rate risk related to debt.

Item 12. Description of Securities Other than Equity Securities.

A. Debt Securities.

Not Applicable.

B. Warrants and Rights.

Not applicable.

C. Other Securities.

Not applicable.

D. American Depositary Shares.

The Bank of New York Mellon, as depositary, registers and delivers ADSs. Each ADS represents one deposited share with The Bank of New York Mellon, as custodian for the depositary in United Kingdom. Each ADS also represents any other securities, cash or other property which may be held by the depositary. The depositary's office at which the ADSs will be administered is located at 240 Greenwich Street, New York, New York 10286. The Bank of New York Mellon's principal executive office is located at 240 Greenwich Street, New York, New York 10286.

A deposit agreement among us, the depositary and the ADS holders sets out the ADS holder rights as well as the rights and obligations of the depositary. New York law governs the deposit agreement and the ADSs. A copy of the deposit agreement is incorporated by reference as an exhibit to this Annual Report.

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
	Cancelation 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 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.

Item 13. Defaults, Dividend Arrearages and Delinquencies.

None.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds.

None.

Item 15. Controls and Procedures.

Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of December 31, 2021.

Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2021, our disclosure controls and procedures were effective.

Management's Annual Report on Internal Control over Financial Reporting

This Annual Report does not include a report of management's assessment regarding internal control over financial reporting due to a transition period established by the SEC's rules for newly public companies.

Attestation Report of the Registered Public Accounting Firm

This Annual Report does not include an attestation report of our registered public accounting firm due to a transition period established by rules of the SEC for newly public companies. For so long as we qualify as an "emerging growth company" as defined under the JOBS Act, our registered public accounting firm is not required to issue an attestation report on our internal control over financial reporting.

Changes in Internal Control over Financial Reporting

We regularly review our system of internal control over financial reporting and make changes to our processes and systems to further strengthen controls and increase efficiency, while ensuring that we maintain an effective internal control environment. We have continued to expand the capacity and expertise of our internal accounting staff with appropriate expertise to perform specific functions and add additional depth to our technical accounting and financial reporting capabilities.

Other than the aforementioned changes, there were no further changes in our internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) that occurred during the fiscal year 2021, which have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 16. **[Reserved.]**

Item 16A. **Audit Committee Financial Expert.**

Our board of directors has determined that Carsten Boess is an audit committee financial expert as defined by SEC rules and has the requisite financial sophistication under the applicable Nasdaq rules and regulations and that Carsten Boess is independent as such term is defined in Rule 10A-3 under the Exchange Act and under the listing standards of The Nasdaq Stock Market.

Item 16B. **Code of Ethics.**

We have adopted a written code of business conduct and ethics, or code of conduct, which outlines the principles of legal and ethical business conduct under which we do business. The code of conduct applies to all of our 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. The full text of the code of conduct is available on our website at *www.achillestx.com*. If we make any amendment to our code of conduct or grant any waivers, including any implicit waiver, from a provision of that code, we will disclose the nature of such amendment or waiver on our website to the extent required by the rules and regulations of the SEC.

Item 16C. **Principal Accountant Fees and Services.**

KPMG LLP, or KPMG, has served as our independent registered public accounting firm for the years ending December 31, 2021 and 2020. The following table sets out the aggregate fees for professional audit services and other services rendered by KPMG and their member firms and/or affiliates in 2021 and 2020 (in thousands):

	Year Ended December 31,	
Description	**2021**	**2020**
Audit fees	$ 798	$ 406
Fees for other assurance services	261	392
Total	$ 1,059	$ 798

Audit fees relate to the audit of the financial statements as set out in this Annual Report, audit of our internal control over financial reporting and services related to our statutory and regulatory filings of our subsidiaries.

Fees for other assurance services in 2021 relate to services in connection with a comfort letter.

The Audit Committee has approved the audit fees and all of the fees for other assurance services and other fees for other services for the years 2021 and 2020. The Audit Committee monitors compliance with the UK and U.S. rules on non-audit services provided by an independent registered public accounting firm. On a yearly basis, the Audit Committee pre-approves non-audit services performed by the independent registered public accounting firm up to a limit in line with UK regulation.

Item 16D. **Exemptions from the Listing Standards for Audit Committees.**

Not applicable.

Item 16E. **Purchases of Equity Securities by the Issuer and Affiliated Purchasers.**

Not applicable.

Item 16F. Change in Registrant's Certifying Accountant.

Not applicable.

Item 16G. Corporate Governance.

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 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 stock ownership and trading activities and liability for insiders who profit from trades in a short period of time, which will provide less data in this regard than shareholders of U.S. companies that are subject to the Exchange Act;
- exemption from the Nasdaq requirement requiring disclosure of any waivers of the Code of Business Conduct and Ethics, or Code of Ethics, for directors and 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 over all "related party transactions," as defined in Item 7.B of Form 20-F;
- exemption from the requirement that our board have a compensation 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 UK corporate governance practices 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, our Articles of Association will provide alternative quorum requirements that are generally applicable to meetings of shareholders; and
- 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 senior management are not subject to short-swing profit and insider trading reporting obligations under Section 16 of the Exchange Act. They will, however, be subject to the obligations to report changes in share ownership under Section 13 of the Exchange Act and related SEC rules.

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.

Item 16H. Mine Safety Disclosure.

Not applicable.

Item 16I. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 17. Financial Statements.

We have elected to provide financial statements pursuant to Item 18.

Item 18. Financial Statements.

The financial statements required under this Item 18 are filed as part of this Annual Report beginning on page 176. The audit report of KPMG LLP, independent registered public accounting firm, is included herein preceding the financial statements.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Achilles Therapeutics Plc

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Achilles Therapeutics plc (and subsidiaries) (the Company) as of December 31, 2021 and 2020, the related consolidated statements of operations and comprehensive loss, statements of shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2021, 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
1 March 2022

ACHILLES THERAPEUTICS PLC

Consolidated Balance Sheets

(in thousands, except share and per share amounts)

(expressed in U.S. Dollars, unless otherwise stated)

	December 31,	
	2021	**2020**
ASSETS		
Current assets:		
Cash and cash equivalents	$ 266,319	$ 177,849
Prepaid expenses and other current assets	18,430	9,948
Total current assets	284,749	187,797
Non-current assets:		
Property and equipment, net	17,743	13,369
Operating lease right of use assets	11,048	14,740
Deferred tax assets	26	4
Restricted cash	33	—
Other assets	3,507	3,008
Total non-current assets	32,357	31,121
TOTAL ASSETS	$ 317,106	$ 218,918
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 3,722	$ 6,314
Income taxes payable	—	7
Accrued expenses and other liabilities	10,906	6,590
Operating lease liabilities—current	4,482	3,712
Total current liabilities	19,110	16,623
Non-current liabilities:		
Operating lease liabilities-non-current	7,777	12,271
Other long-term liability	691	652
Total non-current liabilities	8,468	12,923
Total liabilities	27,578	29,546
Commitments and contingencies (Note 13)		
Shareholders' equity:		
Ordinary shares, £0.001 par value; 40,603,489 and 4,389,920 shares authorized, issued and outstanding at December 31,2021 and 2020, respectively	54	6
Deferred shares, £92,451.851 par value, one share authorized, issued and outstanding at December 31, 2021; Deferred shares, £0.001 par value; 30,521 shares issued and outstanding at December 31,2020	128	—
Convertible preferred shares, £0.001 par value; no shares authorized, issued and outstanding as of December 31, 2021; 104,854,673 shares authorized, issued and outstanding at December 31, 2020	—	134
Additional paid in capital	401,821	234,922
Accumulated other comprehensive income	6,636	12,322
Accumulated deficit	(119,111)	(58,012)
Total shareholders' equity	289,528	189,372
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$ 317,106	$ 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,		
	2021	**2020**	**2019**
OPERATING EXPENSES:			
Research and development	$ 42,224	$ 22,629	$ 9,072
General and administrative	21,971	11,098	4,703
Total operating expenses	64,195	33,727	13,775
Loss from operations	(64,195)	(33,727)	(13,775)
OTHER INCOME (EXPENSE), NET:			
Other income (expense)	3,133	531	(215)
Total other income (expense), net	3,133	531	(215)
Loss before provision for income taxes	(61,062)	(33,196)	(13,990)
Provision for income taxes	(37)	(3)	—
Net loss	(61,099)	(33,199)	(13,990)
Other comprehensive income:			
Foreign exchange translation adjustment	(5,686)	4,213	8,504
Comprehensive loss	$ (66,785)	$ (28,986)	$ (5,486)
Net loss per share attributable to ordinary shareholders—basic and diluted	$ (2.13)	$ (31.14)	$ (21.79)
Weighted average ordinary shares outstanding—basic and diluted	28,654,760	1,066,208	642,169

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		Series B $0.001 par value		Series C $0.001 par value		Ordinary $0.001 par value		Deferred shares $0.001 par value		Additional paid-in capital	Accumulated other comprehensive income (loss)	Accumulated deficit	Total
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at December 31, 2018	17,850,000	$ 23	$ —	$ —	$ —	$ —	1,407,925	$ 2	71,431	$ —	$ 23,866	$ (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)	—	—	—	—	—	—	1,358,765	2	—	—	(2)	—	—	—
Conversion of ordinary shares into deferred shares	—	—	—	—	—	—	(232,483)	—	920,434	1	(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	—	$ —	2,534,207	$ 4	991,865	$ 1	$ 117,968	$ 8,109	$ (24,813)	$ 101,348
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)	—	—	—	—	—	—	1,993,503	2	—	—	(2)	—	—	—
Conversion of ordinary shares into deferred shares	—	—	—	—	—	—	(137,790)	—	548,040	1	(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	4,389,920	6	30,521	—	234,922	12,322	(58,012)	189,372
Conversion of ordinary shares into deferred shares	—	—	—	—	—	—	(18,262)	—	78,537	—	—	—	—	—
Effect of corporate reorganization including conversion of preferred share to ordinary share	(28,250,000)	(36)	(52,192,070)	(66)	(24,412,603)	(32)	26,481,831	34	(109,057)	128	(28)	—	—	—
Issuance of ordinary shares (Note 7)	—	—	—	—	—	—	9,750,000	14	—	—	160,610	—	—	160,624
Share-based compensation expense	—	—	—	—	—	—	—	—	—	—	6,317	—	—	6,317
Unrealized gain on foreign currency translation	—	—	—	—	—	—	—	—	—	—	—	(5,686)	—	(5,686)
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	(61,099)	(61,099)
Balance at December 31, 2021	—	$ —	—	$ —	—	$ —	40,603,489	$ 54	1	$ 128	$ 401,821	$ 6,636	$ (119,111)	$ 289,528

The accompanying notes are an integral part of these financial statements.

ACHILLES THERAPEUTICS PLC
Consolidated statements of cash flows
(in thousands)

	2021	2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net loss	$ (61,099)	$ (33,199)	$ (13,990)
Adjustments to reconcile net loss to net cash used in operating activities			
Depreciation and amortization	3,288	772	302
Loss on disposal of property and equipment	156	—	14
Changes in right of use assets and operating lease liabilities, net	(18)	1,179	(9)
Non-cash loss on foreign currency remeasurement	3	—	0
Non-cash share-based compensation	6,317	2,992	719
Changes in operating assets and liabilities			
Prepaid expenses and other current assets	(9,771)	(3,120)	(2,566)
Accounts payable	(2,572)	5,258	548
Income taxes payable	(7)	7	—
Accrued expenses and other liabilities	4,937	3,045	873
Other long-term liability	47	614	—
Deferred tax assets	(22)	(4)	—
Other assets	(543)	(2,796)	(33)
Net cash used in operating activities	(59,284)	(25,252)	(14,142)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property and equipment	(7,634)	(11,847)	(942)
Net cash used in investing activities	(7,634)	(11,847)	(942)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Issuance of ADRs in initial public offering, net of issuance costs	160,755	—	—
Proceeds of issuance of convertible preferred shares, net of issuance costs	—	113,825	93,622
Payments of initial public offering costs	—	(121)	—
Net cash provided by financing activities	160,755	113,704	93,622
Effect of exchange rate changes on cash equivalents and restricted cash	(5,334)	3,650	8,373
Net increase in cash	88,503	80,255	86,911
Cash, cash equivalents and restricted cash, beginning of year	177,849	97,594	10,683
Cash, cash equivalents and restricted cash, end of year	$ 266,352	$ 177,849	$ 97,594
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:			
Right of use assets obtained in exchange for new operating lease liabilities	$ 314	$ 15,846	$ 457
Property and equipment purchases in accrued expenses	$ 726	$ 285	$ 343
Issuance costs of convertible preferred shares included in accounts payable	$ —	$ —	$ 192
Deferred offering costs included in accrued expenses	$ —	$ 826	$ —

The following table provides a reconciliation of the cash, cash equivalents and restricted cash balances as of each of the periods, shown above:

	2021	2020	2019
Cash and cash equivalents	$ 266,319	$ 177,849	$ 97,594
Restricted cash	33	$ —	$ —
Total cash, cash equivalents and restricted cash	$ 266,352	$ 177,849	$ 97,594

The accompanying notes are an integral part of these financial statements.

1. Nature of the business

Achilles Therapeutics plc (formerly Achilles TX Limited) and subsidiaries, 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 (formerly 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 Wales 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 and initial public offering, or IPO, took place in several steps which were completed on April 6, 2021.

- **Exchange of Achilles Therapeutics UK Limited Shares for Achilles TX Limited Shares**: In December 2020 all shareholders of Achilles Therapeutics UK Limited (except for the holders of deferred shares) 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.

- **Re-registration of Achilles TX Limited as Achilles Therapeutics plc:** In February 2021, Achilles TX Limited was re-registered as a public limited company pursuant to section 92 of the UK Companies Act 2006 and renamed Achilles Therapeutics plc. The Company adopted new Articles of Association appropriate for a public limited company.

As a result of the above Achilles TX Limited is the successor to Achilles Therapeutics UK Limited (the “Predecessor”) and the financial information for the period prior to the incorporation of Achilles TX Limited represents that of the Predecessor.

On April 6, 2021, the Company completed the initial public offering, or IPO. In connection with the IPO, the Company sold an aggregate of 9,750,000 ADSs representing the same number of ordinary shares, at a public offering price of $18.00 per ADS. Net proceeds were $160.6 million, after deducting underwriting discounts and commissions and other offering expenses. Upon completion of the IPO, the Company adopted new articles suitable for a listed public limited company.

On April 6, 2021, the Company effected a one-for-0.2526 (rounded to four decimal places) reverse share split of its issued and outstanding ordinary shares except for N ordinary shares and a proportional adjustment to the existing conversion ratios for each class of the Company’s convertible preferred shares, and a one-for-0.1792 (rounded to four decimal places) reverse share split of its issued and outstanding N ordinary shares. Accordingly, all share and per

share amounts for all periods presented in the consolidated financial statements and notes thereto have been adjusted retroactively, where applicable, to reflect this reverse share split and adjustment of the preferred share conversion ratios. Two shareholders elected to receive a number of Class A non-voting ordinary shares rather than their full entitlement of ordinary shares following the reverse share split. As part of this reverse share split, a single deferred share with a nominal value of £92,451.851 in the capital of the Company was created.

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, including 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

In accordance with the Financial Accounting Standards Board, or FASB, Accounting Standards Update, or ASU, 2014-15, Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern (Subtopic 205-40), the Company has evaluated whether there are conditions and events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern.

The Company has historically been loss making and anticipates that it will continue to incur losses for the foreseeable future and had an accumulated deficit of $119.1 million as of December 31, 2021. The Company has funded these losses principally through the issuance of ordinary and 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 chains. The Company has maintained operations at its GMP manufacturing and research and development sites through 2021 to date. 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, 2021, the Company had cash and cash equivalents of $266.3 million. The Directors have reviewed the financial projections of the Company for the 12 months subsequent to the date of issuance 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 as they fall due in the ordinary course of business for at least 12 months from the date of issuance of the financial statements.

2. Summary of significant accounting policies

Basis of presentation

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America or U.S. GAAP and are presented in U.S. dollars. All significant inter–company accounts and transactions between the Company and its subsidiaries have been eliminated upon consolidation.

.

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, the fair value of ordinary shares and incremental borrowing rate for leases. 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

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision maker in deciding how to allocate resources and assess performance. The Company 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 Consolidated statement of operations and comprehensive loss. The Company recorded foreign exchange gains of $2.5 million, $0.4 million and $0.1 million for the years ended December 31, 2021, 2020 and 2019, 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 (loss)/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. In connection with a lease, the Company maintains a required minimum balance, currently less than $0.1 million in connection with a letter of credit issued for the benefit of the landlord for its commercial facility used as a security deposit for the lease. The total amount is classified as Restricted Cash and has been classified as a non-current asset in the Consolidated Balance Sheets.

Deferred Initial Public Offering Costs

The Company capitalized 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 were offset against IPO proceeds upon the consummation of the offering.

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, 2021 and 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. The Company has a money-market fund that is measured under the fair value hierarchy as Level 1 as there are quoted prices in active markets for identical assets. See Note 3, Fair Value of Financial Instruments.

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 UK 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. Assets under construction are not depreciated until the asset is available and ready for use.

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 recognized an impairment loss of $0.1 million in the year ended December 31, 2021. The Company did not recognize any impairment losses in the years ended December 31, 2020 and 2019.

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 ("ARO" 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 commitments 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* ("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 8, "Share-based compensation," 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 Achilles became a listed, public company in April 2021, the Company has limited 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 as there is a limited trading history of our ordinary shares.

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.

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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 8, "Share-based compensation," 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 Achilles became a listed, public company in April 2021, the Company has limited 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 as there is a limited trading history of our ordinary shares.

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.

Given the absence of an active market for the Company's ordinary shares prior to the IPO, 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* (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 ("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. After IPO, the fair value of ordinary shares is determined by reference to the closing price of ADSs on the Nasdaq Global Select Market on the date of grant.

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 ("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, 2021, 2020 and 2019, 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 UK. Due to the nature of the business, the Company has generated losses since inception. The benefit from research and development ("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 UK.

The UK 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 UK 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 UK research and development tax credits generated are needed to offset a corporate income tax liability in the UK, 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 UK research and development tax credit regime under the scheme for small or medium-sized enterprises ("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 UK 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 UK 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.

Government grants

The Group receives certain government grants that support specific research and development activities. Income in respect of grants also includes contributions towards the costs of research and development. Income is recognized when costs under each grant are incurred in accordance with the terms and conditions of the grant and the collectability of the receivable is reasonably assured. Government grants relating to costs are deferred and recognized in the income statement over the period necessary to match them with the costs they are intended to compensate. The Group recognizes income from government grants under 'Other income—net' in the Company's consolidated statement of comprehensive loss.

Recent accounting pronouncements

Recently adopted accounting standards

In December 2019, the FASB issued ASU 2019-12, "*Income Taxes—Simplifying the Accounting for Income Taxes* (Topic 740) ("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 new guidance was adopted on January 1, 2021 and it did not have a material impact on the Company's consolidated financial statements and related disclosures.

In November 2021, the FASB issued ASU 2021-10, "*Government Assistance – Topic 832 – Disclosures by Business Entities about Government Assistance*," which increases the transparency of government assistance including the disclosure of (1) the types of assistance, (2) an entity's accounting for the assistance, and (3) the effect of the assistance on an entity's financial statements. The amendments in this Update require the following annual disclosures about transactions with a government that are accounted for by applying a grant or contribution accounting model by analogy: 1. Information about the nature of the transactions and the related accounting policy used to account for the transactions. 2. The line items on the balance sheet and income statement that are affected by the transactions, and the amounts applicable to each financial statement line item. 3. Significant terms and conditions of the transactions, including commitments and contingencies. ASU 2021-10 is effective for annual periods beginning after December

15, 2021; however, early adoption is permitted. The new guidance was adopted on January 1, 2022 and will be effective for the year ended December 21, 2022. This guidance is not expected to have a material impact on the Company's financial statements and related disclosures.

3. Fair Value of Financial Instruments

The following tables show assets measured at fair value on a recurring basis as of December 31, 2021 (in thousands):

	December 31, 2021		
	Level 1	**Level 2**	**Level 3**
Cash equivalents:			
Money market funds	$ 40,224	$ —	$ —
	$ 40,224	$ —	$ —

There were no liabilities measured at fair value on a recurring basis as of December 31, 2021. There were no assets or liabilities measured at fair value on a recurring basis as of December 31, 2020.

4. Prepaid expenses and other current assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	December 31,	
	2021	**2020**
UK R&D tax credit	$ 10,523	$ 6,214
Prepaid research and development	3,608	751
Prepaid insurance	1,525	21
VAT recoverable	650	1,125
Deferred offering costs	—	1,007
Other current assets	2,124	830
	$ 18,430	$ 9,948

5. Property and Equipment, net

Property and equipment, net consisted of the following (in thousands):

	December 31,	
	2021	**2020**
Lab equipment	$ 7,505	$ 4,644
Leasehold improvements	7,021	6,960
Office equipment and computers	1,561	1,168
Fixtures and fittings	757	706
Assets under construction	5,351	1,275
	22,195	14,753
Less: Accumulated depreciation	(4,452)	(1,384)
	$ 17,743	$ 13,369

Depreciation expense was $3.3 million, $0.8 million and $0.3 million for the years ended December 31, 2021, 2020 and 2019, respectively.

6. Accrued expenses and other liabilities

Accrued expenses and other liabilities consisted of the following (in thousands):

	December 31,	
	2021	2020
Compensation and benefits	$ 2,649	$ 1,494
External research and development expenses	2,985	2,201
Facility costs	2,629	868
Property and equipment	712	303
Professional services	663	1,222
Other liabilities	1,268	502
	$ 10,906	$ 6,590

7. Shareholders' equity

Ordinary shares

As of December 31, 2021 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,	
	2021	2020
Ordinary shares	38,987,122	—
Class A non-voting ordinary shares	1,616,367	—
B Ordinary shares	—	505,108
D Ordinary shares	—	155,669
E Ordinary shares	—	80,007
F Ordinary shares	—	327,084
G Ordinary shares	—	194,261
H Ordinary shares	—	88,871
I Ordinary shares	—	48,391
J Ordinary shares	—	262,478
L Ordinary shares	—	1,207,670
M Ordinary shares	—	811,436
N Ordinary shares	—	708,945
Deferred Shares	1	30,521
Total ordinary and deferred shares	40,603,490	4,420,441

As of December 31, 2020 and 2019, the Company issued various classes of ordinary shares as Employee Shares (See Note 8). Each holder of B ordinary shares was 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 and 2020 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.

On April 6, 2021, all the Employee Shares, Convertible Preferred Shares (see below) and B ordinary shares were converted into ordinary shares or Class A non-voting ordinary shares. Please refer to the details in Note 1. Class A non-voting ordinary shares have same rights and privileges as ordinary shares, except for the voting rights.

As of December 31, 2021, the Company has not declared any dividends.

***Deferred* shares**

As of December 31, 2020 and 2019, deferred shares were 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.

On April 6, 2021, all the deferred shares were cancelled. In addition, a single deferred share with a nominal value of £92,451.851 in the capital of the Company was created as part of the Company's reorganization (Note 1). As of December 31, 2021, the Company had one deferred share which could be repurchased at any time by the Company for nil consideration.

Convertible preferred shares

The Company issued series A convertible preferred shares ("Series A"), series A-1 convertible preferred shares ("Series A-1"), series B preferred shares ("Series B") and series C preferred shares ("Series C") (collectively, "Convertible Preferred Shares").

As of December 31, 2020, Convertible Preferred Shares consisted of the following (in thousands, except share data):

	Shares		Liquidation	Carrying
	Authorized	Outstanding	preference	value
Series A preferred shares	28,250,000	28,250,000	$ 36,725	$ 36,725
Series B preferred shares (1)	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

(1) The liquidation preference amount of Series B preferred shares as of December 31, 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.

On April 6, 2021, all the Convertible Preferred Shares were converted into ordinary shares or Class A non-voting ordinary shares. There are no Convertible Preferred Shares outstanding as of December 31, 2021. 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 (subject to appropriate adjustment in the event of any share dividend, share split, combination or other similar recapitalization). 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 (subject to appropriate adjustment in the event of any share dividend, share split, combination or other similar recapitalization) 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% of the 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% of the 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 the Convertible Preferred Shares, 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, 2021, no dividends have been declared or paid.

Voting rights

The holders of the Convertible Preferred Shares were 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 carried 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 would 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. After Convertible Preferred Shares, holders of deferred shares would be 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 was 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) was greater than the amount to which the holder was entitled as a Convertible Preferred Share holder, the entitlement of the Convertible Preferred Share holder would 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 were insufficient to pay the holders of the Convertible Preferred Shares the full amounts to which they were entitled, the holders of Convertible Preferred Shares were to 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.

8. Share-based compensation

Employee Shares and Options

Under the Company’s shareholder and subscription agreements, which were effective until the date of IPO, the Company was 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. All Employee Shares converted into ordinary shares in accordance with the reverse share split implemented on IPO (see Note 1, "Nature of business," to our financial statements appearing at the end of this Annual Report). The share options were granted pursuant to the terms of the 2020 Share Omnibus Plan, or the 2020 Plan.

Upon and following closing of the IPO, no further equity awards were granted under the 2020 Plan. To the extent outstanding options granted under the 2020 Plan are cancelled, forfeited or otherwise terminated without being exercised and would otherwise have been returned to the share reserve under the 2020 Plan, the number of shares underlying such awards will be available for future grant under the Company's 2021 Omnibus Plan (see below). In anticipation of IPO, the holders of Employee Shares and the Company entered into individual vesting agreements, or Vesting Agreements, which apply the same terms to vesting of Employee Shares as applied prior to IPO under the Company's pre-IPO Articles of Association, except that following the IPO Employee Shares that would pre-IPO have converted to deferred shares, will be transferred back to the Company and cancelled within twelve months of an employee leaving the Company.

2021 Share Omnibus Plan

In March 2021, the Company's board of directors adopted, and the Company's shareholders approved, the 2021 Share Omnibus Plan, or the 2021 Plan, which became effective upon the effectiveness of the Company's Registration Statement on Form F-1 in connection with the IPO. 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 Company initially reserved 2,572,558 of its ordinary shares 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. This number is subject to adjustment in the event of a sub-division, consolidation, share dividend or other change in our capitalization. The total number of ordinary shares that may be issued under the 2021 Plan was 2,572,558 shares as of December 31, 2021, of which 1,578,993 shares remained available for future grant.

2021 Employee Share Purchase Plan

The Company's 2021 Employee Share Purchase Plan, or ESPP, was adopted by the Board in March 2021 and approved by shareholders in March 2021 and became effective upon the effectiveness of the Company's Registration Statement on Form F-1 in connection with the IPO. The ESPP initially reserves and authorizes the issuance of 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 1, beginning on January 1, 2022 and each January 1 thereafter through January 1, 2022, by the least of (i) 1% of the outstanding number of ordinary shares on the immediately preceding December 31; (ii) 467,738 ordinary shares or (iii) such number of shares as determined by the remuneration committee. The number of shares reserved under the ESPP is subject to change in the event of a share split, share dividend or other change in our capitalization. The total number of ordinary shares that may be issued under the ESPP was 467,738 shares as of December 31, 2021, of which 467,738 shares remained available for future grant. As of December 31, 2021, the initial purchase period under the ESPP has not yet commenced.

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, and the balance vesting periodically over the remaining three years.

Unvested Employee Shares are forfeited upon the giving or receiving of notice of termination of employment or service relationship in accordance with the Articles of the Company (prior to IPO, and in accordance with the Vesting Agreements post-IPO) and 2020 Plan. Before IPO, the forfeited shares were converted into deferred shares, with a repurchase right for a nominal amount in favor of the Company. As of December 31, 2020, the Company repurchased 1,509,384 deferred shares with the consideration of £0.01 to each holder for all of the deferred shares held by that holder. As part of the Company's reorganization, 109,058 outstanding deferred shares immediately before the IPO were cancelled upon IPO, and a single deferred share with a nominal value of £92,451.851 in the capital of the Company was created. As of December 31, 2021, the Company had one deferred share which could be repurchased by the Company at any time for nil consideration.

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.

A summary of the changes in the Company's unvested ordinary shares from December 31, 2019 through December 31, 2021 are as follows:

	Number of unvested ordinary shares		Weighted average grant date fair value
Unvested ordinary shares as of December 31, 2019	1,727,874	$	2.96
Granted	1,993,503	$	7.58
Vested	(746,095)	$	3.44
Forfeited	(137,790)	$	3.46
Unvested ordinary shares as of December 31, 2020	2,837,492	$	6.38
Granted	—		—
Vested	(916,172)	$	5.61
Forfeited	(18,262)	$	6.80
Unvested ordinary shares as of December 31, 2021	1,903,058	$	6.43

As of December 31, 2021 and 2020, there was $11.3 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 2.6 years and 3.1 years, respectively.

Share Options

The following table summarizes the Company's share options activity for the year ended December 31, 2021:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2020	240,584	$ 6.75	4.84	$ 313
Granted	1,164,778	$ 13.83		
Exercised	—	—		
Forfeited	(47,515)	$ 12.98		
Outstanding as of December 31, 2021	1,357,847	$ 8.95	8.58	$ 10
Exercisable as of December 31, 2021	102,424	$ 6.99	4.37	$ —
Unvested as of December 31, 2021	1,255,423	$ 9.11	8.92	$ 10

The weighted average grant-date fair value of share options granted during the year ended December 31, 2021 and 2020 was $5.42 and $3.33 per share, respectively.

As of December 31, 2021, there was $5.4 million of unrecognized compensation cost related to share options outstanding, which is expected to be recognized over a weighted-average period of 3.3 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, 2021 and 2020 were as follows:

	Year Ended December 31, 2021	Year Ended December 31, 2020
Expected term (in years)	6.02 Years	3.21 Years
Expected volatility	72.15%	73.81%
Expected dividend yield	0.00%	0.00%
Risk free interest rate	1.07%	0.20%
Fair value of underlying ordinary shares	$ 9.53	$ 6.35

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,		
	2021	2020	2019
Research and development	$ 3,362	$ 1,331	$ 332
General and administrative	2,955	1,661	387
	$ 6,317	$ 2,992	$ 719

9. Leases

As of December 31, 2021, the Company had seven 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, three of the Company's leases met the short-term exception, having lease terms of 12 months 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 into a Master Service Agreement with Royal Free London NHS Foundation Trust, which included access rights to the laboratory 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 and laboratory 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 January 10, 2020, the Company entered into a non-cancellable operating lease in relation to office and laboratory 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 laboratory 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 expects to construct a flexible GMP modular facility to scale up its manufacturing footprint at these premises. 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.

In June 2021, the Company entered into a new lease of office premises in London, United Kingdom for a period of 3 years, with a break clause at 2 years. The future minimum lease payments to be committed to in relation to this lease up to the break date are £0.1 million or $0.1 million.

On October 1, 2021, the Company entered into a non-cancellable operating lease in relation to office and laboratory premises in Philadelphia, Pennsylvania in the United States for a period of 38 months. The right-of-use asset and lease liability will be recorded on the lease commencement date, which is in January 2022. In connection with this lease, the Company maintains a required minimum balance, currently less than $0.1 million in connection with a letter of credit issued for the benefit of the landlord for its commercial facility used as a security deposit for the lease. The total amount is classified as Restricted Cash and has been classified as a non-current asset on the Consolidated Balance Sheets. The letter of credit expires on September 30, 2022. However, it automatically extends for additional one-year periods, without written amendment agreement, in each succeeding calendar year, through the lease expiration date.

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, 2021, 2020 and 2019 (dollars in thousands):

	Years ended December 31,		
	2021	**2020**	**2019**
Lease cost			
Operating lease cost	$ 4,718	$ 2,927	$ 564
Variable lease cost	5,022	2,891	31
Short-term lease cost	65	49	88
	$ 9,805	$ 5,867	$ 683
Other information:			
Cash paid for amounts included in the measurement of lease liabilities: Operating cash flows used in operating leases	$ 4,736	$ 1,844	$ 574
Right of use assets obtained in exchange for new operating lease liabilities	$ 314	$ 15,846	$ 457
Weighted average remaining lease term (in years)	3.1 years	4.0 years	0.9 years
Weighted average discount rate	4.86%	4.85%	5.01%

Variable lease cost is determined based on usage in accordance with the contractual agreements.

Pursuant to the terms of the Company's non-cancelable lease agreements in effect at December 31, 2021, the following table summarizes the Company's maturities of operating lease liabilities as of December 31, 2021 (in thousands):

	December 31, 2021
Operating lease liabilities payment	
2022	$ 4,974
2023	4,322
2024	3,046
2025	815
Total lease payments	$ 13,157
Less: imputed interest	(898)
Present value of lease liability	$ 12,259

10. License agreements

CRT license

In May 2016, the Company entered into a License Agreement, or the License Agreement, with Cancer Research Technology Limited, or CRT, pursuant to which the Company obtained access rights to intellectual property and know-how from the 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 therapeutic field of neoantigen cell therapies and adoptive cell transfer; and (ii) the neoantigen diagnostic field, for use in research and the potential development of products for commercialization. The Company is further granted, during the vaccine option period, an exclusive license to the TRACERx patents and the bioinformatic data in the private neoantigen therapeutic vaccine field for research and development but not in the development of products for commercial sale, and a non-exclusive license to the same in the public neoantigen therapeutic vaccine field. 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. Under the License Agreement, the Company holds an option to exploit products in the therapeutic vaccine field (the "Vaccine Option"). In March 2021, the Company extended the Vaccine Option from May 2021 to May 2023 with a payment of less than £0.1 million or $0.1 million.

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, November 2020 and March 2021.

Upon execution of the License Agreement the Company granted CRT 396,125 B ordinary shares and 67,793 C ordinary shares. The C ordinary shares granted to CRT were forfeited and transferred to the deferred shares during the year ended December 31, 2019, as the applicable performance conditions were not met. The B ordinary shares granted to CRT were converted into ordinary shares upon IPO. The Company recorded $0.3 million of IP research and development expense in 2016. 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 has 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. Upon IPO, the Company gave notice to

CRT to exercise the option to acquire the TRACERx patents with no consideration in accordance with the terms of the License Agreement. The acquisition was not finalized as of December 31, 2021.

Less than $0.1 million of expenses were recorded for the year ended December 31, 2021 related to the CRT License Agreement. No expenses were recorded for the years ended December 31, 2020 and 2019 related to the CRT License Agreement.

Secarna license

On October 20, 2021, the Company entered into an agreement, or Secarna Agreement with Secarna Pharmaceuticals GmbH & Co. KG or Secarna, whereby Secarna granted to the Company a non-exclusive worldwide license under certain patent and other intellectual property rights, to use the Secarna technology in the ex vivo manufacture of a T cell pharmaceutical product.

The Company is obligated to pay Secarna development milestone payments up to a maximum aggregate of €6.5 million ($7.4 million using a rate of €1.132 at December 31, 2021) and one-time commercial milestone payments up to €26 million ($29.4 million using a rate of €1.132 at December 31, 2021), as well as tiered 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 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) ten years from the first commercial sale of the product. For the year ended December 31, 2021, the Company recorded expenses of €0.7 million ($0.8 million using an average rate of €1.183 for the year ended December 31, 2021) related to the Secarna license agreement.

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 60 day remedy period.

11. Income taxes

The Company is domiciled in the United Kingdom and is primarily subject to taxation in that country. During the years ended December 31, 2021, 2020 and 2019, the Company recorded no income tax benefits for the net operating losses incurred in the UK in each period due to its uncertainty of realizing a benefit from those items. During the year ended December 31, 2021, 2020 and 2019, 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 (in thousands):

	December 31,		
	2021	**2020**	**2019**
United Kingdom	$ (61,182)	$ (33,204)	$ (13,990)
Foreign	120	8	—
	$ (61,062)	$ (33,196)	$ (13,990)

The income tax provision for the years ended December 31, 2021, 2020 and 2019 is comprised of the following (in thousands):

	December 31,		
	2021	2020	2019
Current expense:			
United Kingdom	$ —	$ —	$ —
Foreign	59	7	—
Total current expense:	59	7	—
Deferred expense (benefit):			
United Kingdom	—	—	—
Foreign	(22)	(4)	—
Total deferred expense (benefit):	(22)	(4)	—
Total income tax expense:	$ 37	$ 3	$ —

The provision for income taxes for the years ended December 31, 2021, 2020 and 2019 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,		
	2021	2020	2019
Income taxes at UK statutory rate	19.00%	19.00%	19.00%
R&D expenditure	(6.67)%	(6.69)%	(12.37)%
Change in valuation allowance	(20.12)%	(13.12)%	(6.85)%
Change in UK tax rate	7.64%	—	—
Other	(0.13)%	0.80%	0.22%
	(0.28)%	(0.01)%	—

Significant components of the Company's deferred tax assets and liabilities as of December 31, 2021, 2020 and 2019 consist of the following (in thousands):

	December 31,		
	2021	2020	2019
Deferred tax assets			
Net operating loss carryforwards	$ 17,742	$ 7,065	$ 2,475
Depreciation	(1,311)	(983)	(243)
Non-cash share-based compensation	2,328	769	161
Other	329	241	(2)
Total deferred tax assets	$ 19,088	$ 7,092	$ 2,391
Valuation allowance	(19,062)	(7,088)	(2,391)
Net deferred tax assets	$ 26	$ 4	$ —

As of December 31, 2021, 2020 and 2019, the Company had UK net operating loss carryforwards of approximately $71.0 million, $37.1 million and $13.0 million, respectively, that can be carried forward indefinitely, respectively.

Changes in the valuation allowance for deferred tax assets during the years ended December 31, 2021, 2020 and 2019 related primarily to the increases in net operating loss carryforwards and research and development tax credit carryforwards were as follows (in thousands):

	December 31,		
	2021	2020	2019
Valuation allowance at beginning of year	$ 7,088	$ 2,391	$ 1,342
Increases recorded to income tax provision	7,624	4,628	996
Exchange difference	(313)	69	53
Change in tax rate	4,663	—	—
Valuation allowance at end of year	$ 19,062	$ 7,088	$ 2,391

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, 2021, 2020 and 2019, 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, 2021, 2020 and 2019.

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, 2021, 2020 and 2019.

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, 2021 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 UK 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 UK tax authorities, if such tax attributes are utilized in a future period.

During the second quarter of 2021, the Finance Act 2021 (the Act) was enacted in the United Kingdom. The Act increases the corporate income tax from 19% to 25% effective April 1, 2023 and enhances the first-year capital allowance on qualifying new plant and machinery assets effective April 1, 2021. The effects on the Company's existing deferred tax balances have been recorded and is offset by the valuation allowance maintained against the Company's UK net deferred tax assets.

As of December 31, 2021 and 2020, income taxes on undistributed earnings of the Company's U.S. subsidiary have not been provided for as the Company plans to indefinitely reinvest these amounts in the U.S. The cumulative undistributed foreign earnings were not material as of December 31, 2021 and 2020.

12. 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,		
	2021	2020	2019
Numerator			
Net loss	$ (61,099)	$ (33,199)	$ (13,990)
Net loss attributable to ordinary shareholders—basic and diluted	$ (61,099)	$ (33,199)	$ (13,990)
Denominator			
Weighted-average number of ordinary shares used in net loss per share—basic and diluted	28,654,760	1,066,208	642,169
Net loss per share—basic and diluted	$ (2.13)	$ (31.14)	$ (21.79)

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, 2021, 2020 and 2019 because including them would have had an anti-dilutive effect:

	Year ended December 31,		
	2021	2020	2019
Series A preferred shares (as converted into ordinary shares)	—	7,134,644	7,134,644
Series B preferred shares (as converted into ordinary shares)	—	13,181,515	8,787,851
Series C preferred shares (as converted into ordinary shares)	—	6,165,672	—
Unvested ordinary shares	1,903,058	2,837,492	1,727,874
Share options	1,357,847	240,584	—
Total	3,260,905	29,559,907	17,650,369

13. Commitments and contingencies

Commitment with suppliers

The Company entered into several agreements with vendors that contain non-cancellable software arrangements and minimum purchase commitments 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, 2021 and 2020 was $7.4 million and $4.3 million, respectively.

In June 2021, the Company entered into an obligation to take on a new lease of lab and office premises in Stevenage, Hertfordshire, United Kingdom for a period of 10 years, with a break clause at 3 and 7 years. The future minimum lease payments to be committed to in relation to this lease up to the break date are £0.6 million or $0.8 million. As of December 31, 2021, the lease was not commenced and no right of use assets and operating lease liabilities were recognized related to that lease agreement.

Asset Retirement Obligations

The following is a reconciliation of our beginning and ending asset retirement obligation balances for 2021 and 2020 (in thousands):

	2021	2020
Balance, beginning of the year	$ 652	$ —
Additions in estimates		652
Accretion of discount	$ 38	—
Balance, end of year	$ 690	$ 652

The Company's asset retirement obligations relate to post-closure reclamation costs for a lease of office and laboratory space.

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, 2021 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 indemnification agreements entered into with relevant individuals in accordance with the Company's Articles of Association, the Company has indemnification obligations to its officers and directors, officers and members of senior management 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.

14. Related party transactions

The Company analyzed its transactions with related parties for the years ended December 31, 2021, 2020 and 2019, and determined it had the following material transactions that have not been described elsewhere in the financial statements.

During the year 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 was incurred during the year ended December 31, 2021 and 2020. Syncona Investment Management is a subsidiary of Syncona Limited.

15. 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 $1.8 million, $1.0 million and $0.5 in contributions in the year ended December 31, 2021, 2020 and 2019, respectively.

In the United States, the Company established a defined contribution savings plan under Section 401(k) of the Internal Revenue Code. This plan covers substantially all U.S. employees who meet minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis. The Company paid less than $0.1 million in contributions in the years ended December 31, 2021 and 2020, respectively.

16. Subsequent Events

The Company has completed an evaluation of all subsequent events through March 1, 2022, 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, 2021, and events which occurred subsequently but were not recognized in these financial statements.

On February 2, 2022, the Company issued 1,044,410 options with an exercise price of $3.62.

Item 19. Exhibits.

EXHIBIT INDEX

Exhibit Number	Description of Document	Incorporation by Reference			
		Schedule/Form	File Number	Exhibit	File Date
1.1*	Articles of Association of Achilles Therapeutics plc.				
2.1*	Deposit Agreement, dated as of March 30, 2021, by and among the registrant, The Bank of New York Mellon, as the depositary bank, and the holders and beneficial holders from time to time of American Depositary Shares issued thereunder.				
2.2*	Form of American Depositary Receipt (included in Exhibit 2.1).				
2.3*	Description of Securities				
4.1#	2020 Omnibus Plan, as amended, and forms of award agreements thereunder.	Form F-1	333-253735	10.1	3/1/2021
4.2#	2021 Equity Stock Purchase Plan	Form F-1	333-253735	10.2	3/1/2021
4.3#	2021 Omnibus Plan	Form F-1	333-253735	10.3	3/1/2021
4.4	Form of Amended and Restated Registration Rights Agreement, by and between the registrant, Cancer Research Technology Limited and the shareholders listed therein.	Form F-1	333-253735	10.4	3/1/2021
4.5	Lease Agreement, by and between Achilles Therapeutics Limited, 245 Hammersmith Road Nominee 1 Limited, 245 Hammersmith Road Nominee 2 Limited and 245 Hammersmith Road Limited Partnership, dated as of February 21, 2020.	Form F-1	333-253735	10.5	3/1/2021
4.6	Collaboration Agreement, by and between Achilles Therapeutics Limited and Cell Therapy Catapult, dated as of February 28, 2020.	Form F-1	333-253735	10.6	3/1/2021
4.7†	License Agreement, by and between Achilles Therapeutics Limited and Cancer Research Technology Limited, dated as of May 24, 2016, as amended.	Form F-1/A	333-253735	10.7	3/10/2021

Exhibit Number	Description of Document	Incorporation by Reference			
		Schedule/Form	File Number	Exhibit	File Date
4.8	Lease Agreement, by and between Achilles Therapeutics Limited and RLUKREF Nominees (UK) One Limited and RLUKREF Nominees (UK) Two Limited, dated as of December 16, 2020.	Form F-1	333-253735	10.8	3/1/2021
4.9#	Form of Employment Agreement with Iraj Ali.	Form F-1	333-253735	10.9	3/1/2021
4.10#	Form of Deed of Indemnity between Achilles Therapeutics plc and each of its Directors and Officers.	Form F-1	333-253735	10.10	3/1/2021
8.1*	List of Subsidiaries.				
12.1*	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934.				
12.2*	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934.				
13.1+	Certification of Chief Executive Officer Pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934.				
13.2+	Certification of CFO Chief Financial Officer to Rule 13a-14(b) of the Securities Exchange Act of 1934.				
15.1*	Consent of Independent Registered Public Accounting Firm.				
101.INS*	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.				
101.SCH*	Inline XBRL Taxonomy Extension Schema Document.				
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document.				
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document.				

Exhibit Number	Description of Document	Incorporation by Reference			
		Schedule/Form	File Number	Exhibit	File Date
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document.				
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document.				

* Filed herewith.
+ Furnished herewith.
† Certain portions of this exhibit have been omitted pursuant to Item 601(b)(10) of Regulation S-K.
# Indicates a management contract or any compensatory plan, contract or arrangement.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

ACHILLES THERAPEUTICS PLC

Date: March 1, 2022

By: /s/ Iraj Ali
Name: Iraj Ali, Ph.D.
Title: Chief Executive Officer

EXHIBIT 1.1

THE COMPANIES ACT 2006

PUBLIC COMPANY LIMITED BY SHARES

ARTICLES OF ASSOCIATION

of

ACHILLES THERAPEUTICS PLC

(REGISTERED NUMBER: 13027460)

(Adopted on 6 April 2021 by a special resolution passed on 15 March 2021 and amended by a special resolution passed on 28 June 2021)

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Company number: 13027460

THE COMPANIES ACT 2006

PUBLIC COMPANY LIMITED BY SHARES

ARTICLES OF ASSOCIATION

of

ACHILLES THERAPEUTICS PLC

(the "Company")

(Adopted on 6 April 2021 by a special resolution passed on 15 March 2021 and amended by a special resolution passed on 28 June 2021)

1. **Applicability of the Model Articles**

No regulations or articles set out in any statute, or in any statutory instrument or other subordinate legislation made under any statute, concerning companies (including the regulations in the Companies (Model Articles) Regulations 2008 (SI 2008/3229)) shall apply as the articles of the Company. The following shall be the articles of association of the Company.

2. **Definitions and Interpretation**

2.1 In these Articles, unless the context requires otherwise, the following words and expressions shall have the meanings set out below:

"**A Ordinary Shares**" has the meaning given to it in Article 4.1(b);

"**Act**" means the Companies Act 2006

"**address**" includes any number or address used for the purposes of sending or receiving documents or information by electronic means

"**Affiliates**" has the meaning given to it in Article 11.1

"**Articles**" means these articles of association as altered from time to time and Article shall be construed accordingly

"**Beneficial Ownership Limitation**" has the meaning given to it in Article 11.1

"**Board**" means the board of Directors for the time being of the Company or the Directors present or deemed to be present at a duly convened quorate meeting of the Directors

"**Bonus Issue**" or "**Reorganisation**" means any return of capital, bonus issue of shares or other securities of the Company by way of capitalisation of profits or reserves or any consolidation or sub-division or redenomination or any repurchase or redemption of shares or conversion rate applicable to any other outstanding shares of the Company

"**certificated shares**" a share which is not an uncertificated share and references in these Articles to a share being held in certificated form shall be construed accordingly

"**clear days**" in relation to a period of notice means that period excluding the day when the notice is served or deemed to be served and the day for which it is given or on which it is to take effect

"**Companies Acts**" means the Act, the Companies Act 1985 and, where the context requires, every other statute from time to time in force concerning companies and affecting the Company

"**Conversion**" has the meaning given to it in Article 11.2

"**Conversion Notice**" has the meaning given to it in Article 11.3

"**Conversion Shares**" has the meaning given to it in Article 11.3(b)

"**Deferred Shares**" has the meaning given to it in Article 4.1(c)

"**Director**" means a director for the time being of the Company

"**Exchange Act**" has the meaning given to it in Article 11.1

"**FSMA**" means the Financial Services and Markets Act 2000

"**electronic form**" has the meaning given to it in section 1168 of the Act

"**electronic means**" has the meaning given to it in section 1168 of the Act

"**Exchange Act**" means the U.S. Securities Exchange Act of 1934

"**Listing**" means the listing of the Company's Ordinary Shares and A Ordinary Shares (in the form of American depositary shares) on Nasdaq

"**member**" means a member of the Company, or where the context requires, a member of the Board or of any committee

"**Nasdaq**" means The Nasdaq Stock Market LLC

"**Nasdaq Rules**" means the rules of Nasdaq

"**Office**" means the registered office from time to time of the Company

"**Operator**" means Euroclear UK and Ireland Limited or such other person as may for the time being be approved by HM Treasury as Operator under the uncertificated securities rules

"**Ordinary Shares**" has the meaning given to it in Article 4.1(a)

"**paid up**" means paid up or credited as paid up

"**participating class**" means a class of shares title to which is permitted by the Operator to be transferred by means of a relevant system

"present" means, for the purpose of physical general meetings, present in person or, for the purposes of electronic general meetings, present by electronic means

"**Register**" means the register of members of the Company to be maintained under the Act or as the case may be any overseas branch register maintained under Article 120

"**relevant system**" means a computer-based system which allows units of securities without written instruments to be transferred and endorsed pursuant to the uncertificated securities rules

"**Seal**" means the common seal of the Company or, where the context allows, any official seal kept by the Company under section 50 of the Act

"**Secretary**" means the secretary of the Company for the time being

"Securities Act" means the U.S. Securities Act of 1933

"**Share Warrant**" means a warrant to bearer issued by the Company in respect of its shares

"**uncertificated securities rules**" means any provision of the Companies Acts relating to the holding, evidencing of title to, or transfer of uncertificated shares and any legislation, rules or other arrangements made under or by virtue of such provision (including the Uncertificated Securities Regulations 2001 as amended or replaced from time to time and any subordinate legislation or rules made under them for the time being in force)

"**uncertificated share**" means a share of a class which is at the relevant time a participating class, title to which is recorded on the Register as being held in uncertificated form and references in these Articles to a share being held in uncertificated form shall be construed accordingly

2.2 Headings are used for convenience only and shall not affect the construction or interpretation of these Articles.

2.3 A **person** includes a corporate and an unincorporated body (whether or not having separate legal personality).

2.4 Words in the singular shall include the plural and vice versa.

2.5 A reference to one gender shall include a reference to all other genders.

2.6 A reference to a statute or statutory provision is a reference to it as it is in force for the time being, taking account of any amendment, extension, or re-enactment and includes any subordinate legislation for the time being in force made under it.

2.7 Any words or expressions defined in the Companies Acts in force when these Articles or any part of these Articles are adopted shall (if not inconsistent with the subject or context in which they appear) have the same meaning in these Articles or that part, save that the word **company** shall include any body corporate.

2.8 A reference to a document **being signed** or to **signature** includes references to its being executed under hand or under seal or by any other method and, in the case of a communication in electronic form, such references are to its being authenticated as specified by the Companies Acts.

2.9 A reference to **writing** or **written** includes references to any method of representing or reproducing words in a legible and non-transitory form whether sent or supplied in electronic form or otherwise.

2.10 A reference to documents or information **being sent or supplied by or to** a company (including the Company) shall be construed in accordance with section 1148(3) of the Act.

2.11 A reference to a **meeting** shall not be taken as requiring more than one person to be present if any quorum requirement can be satisfied by one person.

2.12 If any Article (or part thereof) is or becomes inconsistent with any laws or regulations of any country to which affairs of the Company are subject such laws or regulations shall prevail and the relevant Article (or part thereof) shall be construed accordingly.

2.13 A reference to an **electronic platform** or **electronic platforms** include, without limitation, website addresses and conference call systems, and references to persons attending meetings by **electronic means** means attendance at electronic general meetings via the electronic platform(s) stated in the notice of such meeting.

3. **Form of Resolution**

Subject to the Companies Acts, where anything can be done by passing an ordinary resolution, this can also be done by passing a special resolution.

4. **Capital**

4.1 The capital of the Company is divided into:

(a) an unlimited number of ordinary shares of £0.001 each ("**Ordinary Shares**");

(b) an unlimited number of A ordinary shares of £0.001 each ("**A Ordinary Shares**"); and

(c) an unlimited number of deferred shares which shall be denominated in sterling with a nominal value to be determined by the Board or a duly appointed and convened committee of the Board ("**Deferred Shares**"),

in each case conferring on the holders the rights and being subject to the restrictions set out in Article 10.

5. **Limited Liability**

The liability of the members of the Company is limited to the amount, if any, unpaid on the shares in the Company held by them.

6. **Change of Name**

The Company may change its name by resolution of the Board.

7. **Power to Attach Rights to Shares**

Subject to the Companies Acts and to any rights attached to existing shares, any share may be issued with or have attached to it such rights and restrictions as the Company 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 the Board may determine.

8. **Allotment of Shares and Pre-Emption**

8.1 Subject to the Companies Acts, these Articles and to any relevant authority of the Company in general meeting required by the Act, the Board may offer, allot (with or without conferring rights of renunciation), grant options over or otherwise deal with or dispose of shares or grant rights to subscribe for or convert any security into shares to such persons, at such times and upon such terms as the Board may decide. No share may be issued at a discount to its nominal value.

8.2 The Board may, at any time after the allotment of any share but before any person has been entered in the Register, recognise a renunciation by the allottee in favour of some other person and accord to the allottee of a share a right to effect such renunciation and/or allow the rights to be represented by one or more participating securities, in each case upon and subject to such terms and conditions as the Board may think fit to impose.

8.3 Under and in accordance with section 551 of the Act, the Directors shall be generally and unconditionally authorised to exercise for each prescribed period all the powers of the Company to allot shares or to grant rights to subscribe for or to convert any security into shares up to an aggregate nominal amount equal to the Section 551 Amount (as defined below).

8.4 Under and within the terms of the said authority or otherwise in accordance with section 570 of the Act, the Directors shall be empowered during each prescribed period to allot equity securities (as defined by the Act) wholly for cash:

(a) in connection with a rights issue; and

(b) otherwise than in connection with a rights issue up to an aggregate nominal amount equal to the Section 561 Amount (as defined below).

8.5 During each prescribed period the Company and its Directors by such authority and power may make offers or agreements which would or might require equity securities or other securities to be allotted after the expiry of such period.

8.6 For the purposes of this Article 8:

(a) "**rights issue**" means an offer of equity securities (as defined by the Act) open for acceptance for a period fixed by the Board to holders of equity securities on the Register on a fixed record date in proportion to their respective holdings of such securities or in accordance with the rights attached to them but subject to such exclusions or other arrangements as the Board may deem necessary or expedient with regard to treasury shares, fractional entitlements or legal or practical problems under the laws of any territory or under the requirements of any recognised regulatory body or stock exchange in any territory;

(b) "**prescribed period**" means any period (not exceeding five years on any occasion) for which the authority, in the case of Article 8.3, is conferred or renewed by ordinary or special resolution stating the Section 551 Amount and in the case of Article 8.4 is conferred or renewed by special resolution stating the Section 561 Amount;

(c) "**Section 551 Amount**" means for any prescribed period, the amount stated in the relevant ordinary or special resolution;

(d) "**Section 561 Amount**" means for any prescribed period, the amount stated in the relevant special resolution; and

(e) the nominal amount of any securities shall be taken to be, in the case of rights to subscribe for or to convert any securities into shares of the Company, the nominal amount of such shares which may be allotted pursuant to such rights.

9. **Redeemable Shares**

Subject to the Companies Acts and to any rights attaching to existing shares, any share may be issued which can be redeemed or is liable to be redeemed at the option of the Company or the holder. The Board may determine the terms, conditions and manner of redemption of any

redeemable shares which are issued. Such terms and conditions shall apply to the relevant shares as if the same were set out in these Articles.

10. **Shareholder Rights**

10.1 The Ordinary Shares shall rank pari passu as a single class. The A Ordinary Shares shall rank pari passu as a single class. Save as set out in these Articles, the Ordinary Shares and the A Ordinary Shares shall rank pari passu in all respects. The Deferred Shares shall rank pari passu as a single class.

10.2 In the event of the liquidation, dissolution or winding up of the Company, the assets of the Company available for distribution to members shall be distributed amongst all holders of the Ordinary Shares and A Ordinary Shares in proportion to the number of shares held irrespective of the amount paid or credited as paid on any share.

10.3 At a general meeting of the Company and at any separate class meeting of the holders of Ordinary Shares, where a holder of Ordinary Shares is entitled to vote, such holder is entitled to one vote for each Ordinary Share held.

10.4 A holder of Ordinary Shares is entitled to receive notice of any general meeting of the Company (and notice of any separate class meeting of the holders of Ordinary Shares) and a copy of every report, accounts, circular or other document sent out by the Company to members.

10.5 The holders of the A Ordinary Shares shall not be entitled to vote at a general meeting of the Company.

10.6 A holder of A Ordinary Shares is entitled to receive notice of any general meeting of the Company (and notice of any separate class meeting of the holders of A Ordinary Shares) and a copy of every report, accounts, circular or other document sent out by the Company to members.

10.7 Notwithstanding any other provision of these Articles, the special rights, privileges, restrictions and limitations attaching to the Deferred Shares are as follows:

(a) the Deferred Shares shall not be entitled to any dividends or to any other right of participation in the profits of the Company;

(b) on return of assets on liquidation, the Deferred Shares shall confer on the holders thereof an entitlement to receive out of the assets of the Company available for distribution amongst the members (subject to the rights of any new class of shares with preferred rights) the amount credited as paid up on the Deferred Shares held by them respectively after (but only after) payment shall have been made to the holders of the Ordinary Shares and A Ordinary Shares of the amounts paid up or credited as paid up on such shares and the sum of £1,000,000 in respect of each Ordinary Share and A Ordinary Shares held by them respectively. The Deferred Shares shall confer on the holders thereof no further right to participate in the assets of the Company;

(c) the Deferred Shares do not entitle the holder thereof to vote on any resolution or to receive notice of, attend any general meeting, or be part of the quorum thereof as the holders of the Deferred Shares;

(d) any reduction of capital involving the cancellation of the Deferred Shares for no consideration shall not be deemed to be a variation of the rights attaching to them nor a modification or abrogation of the rights or privileges attaching to the Deferred Shares

and the Company shall be authorised at any time to reduce its capital (in accordance with the Act) without obtaining the consent of the holders of the Deferred Shares;

(e) any special rights conferred upon the holders of the Deferred Shares shall be deemed to not be modified, varied or abrogated by the creation or issue of further shares ranking pari passu with or in priority to the Deferred Shares;

(f) no transfer of any Deferred Shares shall be permitted save as provided in Article 10.7(g);

(g) the Company shall have irrevocable authority at any time to appoint any person to execute on behalf of the holders of the Deferred Shares a transfer thereof and/or an agreement to transfer the same, without making any payment to the holders thereof, or to such person as the Company may determine as custodian thereof and/or to cancel the same without making any payment to the holders thereof and/or acquire the same (in accordance with the provisions of the Act) without making any payment to or obtaining the sanction of the holders thereof;

(h) subject to the Act, the Company shall be entitled to purchase any Deferred Shares in issue at any time for no consideration; and

(i) the Company shall be entitled to cancel all or any of the Deferred Shares so acquired by the Company in accordance with the Act.

11. **Conversion of A Ordinary Shares**

11.1 In this Article 11:

"**Affiliates**" means those affiliates with whom a holder of the Company's shares is required to aggregate beneficial ownership for the purposes of section 13(d) of the Exchange Act;

"**Beneficial Ownership Limitation**" means, initially, 9.99% of any class of securities of the Company registered under the Exchange Act, and where such percentage may be increased or decreased by a holder of the A Ordinary Shares to such other percentage as such holder may designate in writing (provided that any increase shall not be effective until providing at least sixty-one (61) days' notice to the Company), provided further that: (i) such increase or decrease shall only be applicable to such holder; and (ii) any such increase shall not exceed 19.9% of any class of securities of the Company registered under the Exchange Act. For purposes of calculating the Beneficial Ownership Limitation, a holder may rely on the number of outstanding shares of the subject class as stated in the most recent of the following: (A) the Company's most recent periodic or annual filing; (B) a more recent public announcement by the Company that is publicly filed; or (C) a more recent notice by the Company or the Company's transfer agent to the holder setting forth the number of shares then outstanding. Upon the written request of a holder (which may be by email with confirmation), the Company shall, within three (3) Business Days thereof, confirm in writing to such holder (which may be via email) the number of shares then outstanding; and

"**Exchange Act**" means Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

11.2 Each holder of A Ordinary Shares may convert all or any number of their A Ordinary Shares into Ordinary Shares on a one for one basis at any time (a "**Conversion**"), unless: (i) immediately prior to, or as a result of, such Conversion the relevant holder of A Ordinary Shares beneficial ownership of the Company (for the purposes of section 13(d) of the Exchange Act),

together with their Affiliates (if any), would exceed the Beneficial Ownership Limitation; or (ii) such Conversion would contravene applicable law.

11.3 In order to effect a Conversion, the holder of A Ordinary Shares shall deliver a written notice to the transfer agent of the Company (or the Company if the Company serves as its own transfer agent) specifying:

(a) the full name and contact details of the holder of the A Ordinary Shares and/or the names of any nominee(s) who holds the A Ordinary Shares on the ultimate beneficial owner's behalf; and

(b) the number of A Ordinary Shares that the relevant holder (or nominee, on behalf of an ultimate beneficial owner) wishes to convert into Ordinary Shares (the "**Conversion Shares**"),

(the "**Conversion Notice**").

11.4 Upon receipt of the Conversion Notice the Company will:

(a) convert the Conversion Shares into Ordinary Shares and the holders of the Company's A Ordinary Shares will be deemed to have consented to such Conversion in accordance with section 630(2)(a) of the Act; and

(b) procure that the register of members of the Company is updated to reflect the Conversion as soon as reasonably practicable following the Conversion and, in any event, within 10 Business Days of the Conversion having been completed.

11.5 The one-to-one conversion ratio for the conversion of A Ordinary Shares into Ordinary Shares in accordance with this Article 11 shall in all events be equitably adjusted in the event of any Bonus Issue or Reorganisation.

12. **Pari Passu Issues**

If new shares are created or issued which rank equally with any other existing shares, or the Company purchases any of its own shares, the rights of the existing shares will not be regarded as changed or abrogated unless the terms of the existing shares expressly say otherwise.

13. **Variation of Rights**

13.1 Subject to the Companies Acts, the rights attached to any class of shares can be varied or abrogated either 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 with the authority of a special resolution passed at a separate meeting of the holders of the relevant class of shares known as a **class meeting**.

13.2 The provisions of this Article 13 will apply to any variation or abrogation of rights of shares forming part of a class. Each part of the class which is being treated differently is treated as a separate class in applying this Article 13.

13.3 All the provisions in these Articles as to general meetings shall apply, with any necessary modifications, to every class meeting except that the necessary quorum at every such meeting shall be not less than two persons present and between them holding or representing by proxy at least 33 ⅓ per cent. in number of the issued shares of the relevant class (excluding any shares of that class held as treasury shares) provided that where a person is present by proxy

or proxies, they are treated as holding only the shares in respect of those proxies which are authorised to exercise voting rights.

13.4 The Board may convene a class meeting whenever it thinks fit and whether or not the business to be transacted involves a variation or abrogation of class rights.

14. **Payment of Commission**

The Company may in connection with the issue of any shares or the sale for cash of treasury shares exercise all powers of paying commission and brokerage conferred or permitted by the Companies Acts. Any such commission or brokerage may be satisfied by the payment of cash or by the allotment of fully or partly paid shares or other securities or the grant of an option to call for an allotment of shares or any combination of such methods.

15. **Trusts Not Recognised**

Except as otherwise expressly provided by these Articles, required by law or as ordered by a court of competent jurisdiction, the Company shall not recognise any person as holding any share on any trust, and the Company shall not be bound by or required in any way to recognise (even when having notice of it) any equitable, contingent, future, partial or other claim to or interest in any share other than an absolute right of the holder of the whole of the share.

16. **Uncertificated Shares**

16.1 Under and subject to the uncertificated securities rules, the Board may permit title to shares of any class to be evidenced otherwise than by certificate and title to shares of such a class to be transferred by means of a relevant system and may make arrangements for a class of shares (if all shares of that class are in all respects identical) to become a participating class. Title to shares of a particular class may only be evidenced otherwise than by a certificate where that class of shares is at the relevant time a participating class. The Board may also, subject to compliance with the uncertificated securities rules, determine at any time that title to any class of shares may from a date specified by the Board no longer be evidenced otherwise than by a certificate or that title to such a class shall cease to be transferred by means of any particular relevant system.

16.2 In relation to a class of shares which is a participating class and for so long as it remains a participating class, no provision of these Articles shall apply or have effect to the extent that it is inconsistent in any respect with:

(a) the holding of shares of that class in uncertificated form;

(b) the transfer of title to shares of that class by means of a relevant system; or

(c) any provision of the uncertificated securities rules,

and, without prejudice to the generality of this Article 16.2, no provision of these Articles shall apply or have effect to the extent that it is in any respect inconsistent with the maintenance, keeping or entering up by the Operator, so long as that is permitted or required by the uncertificated securities rules, of an Operator register of securities in respect of that class of shares in uncertificated form.

16.3 Ordinary Shares or A Ordinary Shares of a class which is at the relevant time a participating class may be changed from uncertificated to certificated form, and from certificated to uncertificated form, in accordance with and subject as provided in the uncertificated securities rules.

16.4 If, under these Articles or the Companies Acts, the Company is entitled to sell, transfer or otherwise dispose of, forfeit, re-allot, accept the surrender of or otherwise enforce a lien over an uncertificated share, then, subject to these Articles and the Companies Acts, such entitlement shall include the right of the Board to:

(a) require the holder of the uncertificated share by notice in writing to change that share from uncertificated to certificated form within such period as may be specified in the notice and keep it as a certificated share for as long as the Board requires;

(b) appoint any person to take such other steps, by instruction given by means of a relevant system or otherwise, in the name of the holder of such share as may be required to effect the transfer of such share and such steps shall be as effective as if they had been taken by the registered holder of that share; and

(c) take such other action that the Board 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.

16.5 Unless the Board determines otherwise, shares which a member holds in uncertificated form shall be treated as separate holdings from any shares which that member holds in certificated form but a class of shares shall not be treated as two classes simply because some shares of that class are held in certificated form and others in uncertificated form.

16.6 Unless the Board determines otherwise or the uncertificated securities rules require otherwise, 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.

16.7 The Company shall be entitled to assume that the entries on any record of securities maintained by it in accordance with the uncertificated securities rules and regularly reconciled with the relevant Operator register of securities are a complete and accurate reproduction of the particulars entered in the Operator register of securities and shall accordingly not be liable in respect of any act or thing done or omitted to be done by or on behalf of the Company in reliance on such assumption. Any provision of these Articles which requires or envisages that action will be taken in reliance on information contained in the Register shall be construed to permit that action to be taken in reliance on information contained in any relevant record of securities (as so maintained and reconciled).

17. **Share Certificates**

17.1 Other than as provided in Article 17.6, below, every person (except a person to whom the Company is not by law required to issue a certificate) whose name is entered in the Register as a holder of any certificated shares shall be entitled, without charge, to receive within the time limits prescribed by the Companies Acts (unless the terms of issue prescribe otherwise) one certificate for all of the shares of that class registered in their name.

17.2 The Company shall not be bound to issue more than one certificate in respect of shares held jointly by two or more persons. Delivery of a certificate to the person first named in the Register shall be sufficient delivery to all joint holders.

17.3 Where a member has transferred part only of the shares comprised in a certificate, they shall be entitled without charge to a certificate for the balance of such shares to the extent that the balance is to be held in certificated form. Where a member receives more shares of any class, they shall be entitled without charge to a certificate for the extra shares of that class to the extent that the balance is to be held in certificated form.

17.4 A share certificate may be issued under Seal (by affixing the Seal to or printing (whether mechanically or electronically) the Seal or a representation of it on the certificate) or signed by at least two Directors or by at least one Director and the Secretary. Such certificate shall specify the number and class of the shares in respect of which it is issued and the amount or respective amounts paid up on it. The Board may by resolution decide, either generally or in any particular case or cases, that any signatures on any share certificates need not be autographic but may be applied to the certificates by some mechanical or other means or may be printed on them or that the certificates need not be signed by any **person**.

17.5 Every share certificate sent in accordance with these Articles will be sent at the risk of the member or other person entitled to the certificate. The Company will not be responsible for any share certificate lost or delayed in the course of delivery.

17.6 No share certificates shall be issued in respect of the Deferred Shares.

18. **Replacement Certificates**

18.1 Any two or more certificates representing shares of any one class held by any member may at their request be cancelled and a single new certificate for such shares issued in lieu without charge on surrender of the original certificates for cancellation.

18.2 Any certificate representing shares of any one class held by any member may at their request be cancelled and two or more certificates for such shares may be issued instead.

18.3 If a share certificate is defaced, worn out or said to be stolen, lost or destroyed, it may be replaced on such terms as to evidence and indemnity in respect of such share certificate only as the Board may decide and, where it is defaced or worn out, after delivery of the old certificate to the Company.

18.4 The Board may require the payment of any exceptional out-of-pocket expenses of the Company incurred in connection with the issue of any certificates under this Article 18. In the case of shares held jointly by several persons, any such request as is mentioned in this Article 18 may be made by any one of the joint holders.

19. **Lien on Shares not Fully Paid**

The Company shall have a first and paramount lien on every share, not being a fully paid share, for all amounts payable to the Company (whether presently or not) in respect of that share. The Company's lien over a share takes priority over any third party's interest in that share, and extends to any dividend or other money payable by the Company in respect of that share (and, if the lien is enforced and the share is sold by the Company, the proceeds of sale of that share). The Board may at any time, either generally or in any particular case, waive any lien that has arisen or declare any share to be wholly or in part exempt from the provisions of this Article 19.

20. **Enforcement of Lien by Sale**

The Company may sell, in such manner as the Board may decide, any share over which the Company has a lien if a sum in respect of which the lien exists is presently payable and is not paid within 14 clear days after a notice has been served on the holder of the share or the person who is entitled by transmission to the share, demanding payment and stating that if the notice is not complied with the share may be sold. For giving effect to the sale, in the case of a certificated share, the Board may authorise some person to sign an instrument of transfer of the share sold to, or in accordance with the directions, of the buyer. In the case of an uncertificated share, the Board may require the Operator to convert the share into certificated form and after such conversion, authorise any person to sign the instrument of transfer of the

share to effect the sale of the share. The buyer shall not be bound to see to the application of the purchase money, nor shall their title to the share be affected by any irregularity or invalidity in the proceedings in reference to the sale.

21. **Application of Proceeds of Sale**

The net proceeds of any sale of shares subject to any lien, after payment of the costs, shall be applied:

(a) first, in or towards satisfaction of so much of the amount due to the Company or of the liability or engagement (as the case may be) as is presently payable or is liable to be presently fulfilled or discharged; and

(b) second, any residue shall be paid to the person who was entitled to the share at the time of the sale but only after the certificate for the shares sold has been surrendered to the company for cancellation, or an indemnity in a form reasonably satisfactory to the Directors has been given for any lost certificates, and subject to a like lien for debts or liabilities not presently payable as existed on the share prior to the sale.

22. **Calls**

22.1 Subject to these Articles and the terms on which the shares are allotted, the Board may from time to time make calls on the members in respect of any monies unpaid on their shares (whether in respect of nominal value or premium) and not payable on a date fixed by or in accordance with the terms of issue.

22.2 Each member shall (subject to the Company serving upon them at least 14 clear days' notice specifying when and where payment is to be made and whether or not by instalments) pay to the Company as required by the notice the amount called on for their shares.

22.3 A call shall be deemed to have been made at the time when the resolution of the Board authorising the call was passed.

22.4 A call may be revoked or postponed, in whole or in part, as the Board may decide.

22.5 Liability to pay a call is not extinguished or transferred by transferring the shares in respect of which the call is required to be paid.

23. **Liability of Joint Holders**

The joint holders of a share shall be jointly and severally liable to pay all calls in respect of the share.

24. **Interest on Calls**

If a call remains unpaid after it has become due and payable, the person from whom it is due and payable shall pay all expenses that have been incurred by the Company by reason of such non-payment together with interest on the amount unpaid from the day it is due and payable to the time of actual payment at such rate (not exceeding the Bank of England base rate by more than five percentage points) as the Board may decide. The Board may waive payment of the interest or the expenses in whole or in part.

25. **Power to Differentiate**

On or before the issue of shares, the Board may decide that allottees or holders of shares can be called on to pay different amounts or that they can be called on at different times.

26. **Payment of Calls in Advance**

The Board may, if it thinks fit, receive from any member willing to advance the same, all or any part of the monies uncalled and unpaid on the shares held by them. Such payment in advance of calls shall, to the extent of the payment, extinguish the liability on the shares on which it is made. The Company may pay interest on the money paid in advance, or so much of it as exceeds the amount for the time being called upon the shares in respect of which such advance has been made, at such rate as the Board may decide. The Board may at any time repay the amount so advanced by giving at least three months' notice in writing to such member of its intention to do so, unless before the expiration of such notice the amount so advanced shall have been called up on the shares in respect of which it was advanced.

27. **Notice if Call or Instalment Not Paid**

If any member fails to pay the whole of any call (or any instalment of any call) by the date when payment is due, the Board may at any time give notice in writing to such member (or to any person entitled to the shares by transmission), requiring payment of the amount unpaid (and any accrued interest and any expenses incurred by the Company by reason of such non-payment) by a date not less than 14 clear days from the date of the notice. The notice shall name the place where the payment is to be made and state that, if the notice is not complied with, the shares in respect of which such call was made will be liable to be forfeited.

28. **Forfeiture for Non-Compliance**

If the notice referred to in Article 27 is not complied with, any share for which it was given may be forfeited, by resolution of the Board to that effect, at any time before the payment required by the notice has been made. Such forfeiture shall include all dividends declared or other monies payable in respect of the forfeited shares and not paid before the forfeiture.

29. **Notice After Forfeiture**

When any share has been forfeited, notice of the forfeiture shall be served on the holder of the share or the person entitled to such share by transmission (as the case may be) before forfeiture. An entry of such notice having been given and of the forfeiture and the date of forfeiture shall immediately be made in the Register in respect of such share. However, no forfeiture shall be invalidated by any omission to give such notice or to make such entry in the Register.

30. **Forfeiture May Be Annulled**

The Board may annul the forfeiture of a share, at any time before any forfeited share has been cancelled or sold, re-allotted or otherwise disposed of, on the terms that payment shall be made of all calls and interest due on it and all expenses incurred in respect of the share and on such further terms (if any) as the Board shall see fit.

31. **Surrender**

The Board may accept the surrender of any share liable to be forfeited and, in any event, references in these Articles to forfeiture shall include surrender.

32. **Sale of Forfeited Shares**

32.1 A forfeited share shall become the property of the Company.

32.2 Subject to the Companies Acts, any such share may be sold, re-allotted or otherwise disposed of, on such terms and in such manner as the Board thinks fit.

32.3 The Board may, for the purposes of the disposal, authorise some person to transfer the share in question and may enter the name of the transferee in respect of the transferred share in the Register even if no share certificate is lodged and may issue a new certificate to the transferee. An instrument of transfer executed by that person shall be as effective as if it had been executed by the holder of or the person entitled by transmission to, the share. The Company may receive the consideration (if any) given for the share on its disposal.

33. **Effect of Forfeiture**

A member whose shares have been forfeited shall cease to be a member in respect of such forfeited shares and shall surrender the certificate for such shares to the Company for cancellation. Such member shall remain liable to pay to the Company all sums which at the date of forfeiture were presently payable by them to the Company in respect of such shares with interest at a rate (not exceeding the Bank of England base rate by two percentage points) determined by the Board from the date of the forfeiture to the date of payment. The Directors may waive payment of interest wholly or in part and may enforce payment, without any reduction or allowance for the value of the shares at the time of forfeiture or for any consideration received on their disposal.

34. **Evidence of Forfeiture**

A statutory declaration by a Director or the Secretary that a share has been forfeited on a specified date shall be conclusive evidence of the facts stated in it as against all persons claiming to be entitled to the share. The declaration shall (subject to the execution of an instrument of transfer if necessary) constitute a good title to the share. The person to whom the share is transferred or sold shall not be bound to see to the application of the purchase money or other consideration (if any), nor shall their title to the share be affected by any act, omission or irregularity relating to or connected with the proceedings in reference to the forfeiture or disposal of the share.

35. **Form of Transfer**

35.1 Subject to these Articles:

(a) each member may transfer all or any of their shares which are in certificated form by instrument of transfer in writing in any usual form or in any form approved by the Board. Such instrument shall be executed by or on behalf of the transferor and (in the case of a transfer of a share which is not fully paid up) by or on behalf of the transferee. All instruments of transfer, when registered, may be retained by the Company; and

(b) each member may transfer all or any of their shares which are in uncertificated form by means of a relevant system in such manner provided for, and subject as provided in, the uncertificated securities rules. No provision of these Articles shall apply in respect of an uncertificated share to the extent that it requires or contemplates the effecting of a transfer by an instrument in writing or the production of a certificate for the share to be transferred.

35.2 The transferor of a share shall be deemed to remain the holder of the share concerned until the name of the transferee is entered in the Register in respect of it.

36. **Right to Refuse Registration of Transfer**

36.1 The Board may, in its absolute discretion, refuse to register any transfer of a share in certificated form (or renunciation of a renounceable letter of allotment) unless:

(a) it is for a share which is fully paid up;

(b) it is for a share upon which the Company has no lien;

(c) it is only for one class of share;

(d) it is in favour of a single transferee or no more than four joint transferees;

(e) it is duly stamped or is duly certificated or otherwise shown to the satisfaction of the Board to be exempt from stamp duty (in each case if this is required); and

(f) it is delivered for registration to the Office (or such other place as the Board may determine), accompanied (except in the case of a transfer by a person to whom the Company is 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 the Board may reasonably require to prove the title of the transferor (or person renouncing) and the due execution of the transfer or renunciation by them or, if the transfer or renunciation is executed by some other person on their behalf, the authority of that person to do so.

36.2 The Board shall not refuse to register any transfer or renunciation of partly paid shares which are admitted to trading on Nasdaq, or for which certificated or uncertificated depositary instruments over such shares are admitted to trading on 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.

36.3 Transfers of shares will not be registered in the circumstances referred to in Article 75.

36.4 The Board 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.

37. **Notice of Refusal to Register a Transfer**

If the Board refuses to register a transfer of a share it shall notify the transferee of the refusal and the reasons for it within two months after the date on which the transfer was lodged with the Company or the instructions to the relevant system received. Any instrument of transfer which the Board refuses to register shall be returned to the person depositing it (except if there is suspected or actual fraud). All instruments of transfer which are registered may be retained by the Company.

38. **No Fees on Registration**

No fee shall be charged for registration of a transfer or other document or instruction relating to or affecting the title to any share or for making any other entry in the Register.

39. **Other Powers in Relation to Transfers**

Nothing in these Articles shall prevent the Board:

(a) from recognising a renunciation of the allotment of any share by the allottee in favour of another person; or

(b) (if empowered to do so by these Articles) from authorising any person to execute an instrument of transfer of a share and from authorising any person to transfer that share in accordance with any procedures implemented under Article 20.

40. **Transmission of Shares on Death**

If a member dies, the survivors or survivor (where they were a joint holder), and their executors or administrators (where they were a sole or the only survivor of joint holders), shall be the only persons recognised by the Company as having any title to their shares. Nothing in these Articles shall release the estate of a deceased member from any liability for any share which has been solely or jointly held by them.

41. **Election of Person Entitled By Transmission**

41.1 Any person becoming entitled to a share because of the death or bankruptcy of a member, or otherwise by operation of law, may (on such evidence as to their title being produced as the Board may require) elect either to become registered as a member or to have some person nominated by them registered as a member. If they elect to become registered themselves, they shall notify the Company to that effect. If they elect to have some other person registered, they shall execute an instrument of transfer of such share to that person. All the provisions of these Articles relating to the transfer of shares shall apply to the notice or instrument of transfer (as the case may be) as if it were an instrument of transfer executed by the member and their death, bankruptcy or other event had not occurred. Where the entitlement of a person to a share because of the death or bankruptcy of a member or otherwise by operation of law is proved to the satisfaction of the Board, the Board shall within 30 days after proof cause the entitlement of that person to be noted in the Register.

41.2 A person entitled by transmission to a share in uncertificated form who elects to have some other person registered shall either:

(a) procure that instructions are given by means of the relevant system to effect transfer of such uncertificated share to that person; or

(b) change the uncertificated share to certificated form and execute an instrument of transfer of that certificated share to that person.

42. **Rights on Transmission**

Where a person becomes entitled to a share because of the death or bankruptcy of any member, or otherwise by operation of law, the rights of the holder in relation to such share shall cease. However, the person so entitled may give a good discharge for any dividends and other monies payable in respect of it and shall have the same rights to which they would be entitled if they were the holder of the share, except that they shall not be entitled to receive notice of, or to attend or vote at, any meeting of the Company or any separate meeting of the holders of any class of shares of the Company before they are registered as the holder of the share. The Board may at any time give notice requiring any such person to elect either to be registered themself or to transfer the share. If the notice is not complied with within 30 days, the Board

may withhold payment of all dividends and any other monies payable in respect of such share until the requirements of the notice have been complied with.

43. **Destruction of Documents**

43.1 The Company may destroy any:

(a) instrument of transfer, after six years from the date on which it is registered;

(b) dividend mandate or any variation or cancellation of a dividend mandate or any notification of change of name or address, after two years from the date on which it is recorded;

(c) share certificate, after one year from the date on which it is cancelled;

(d) instrument of proxy which has been used for the purpose of a poll at any time after one year has elapsed from the date of use;

(e) instrument of proxy which has not been used for the purpose of a poll at any time after a period of one month has elapsed from the end of the meeting to which the instrument of proxy relates;

(f) Share Warrant (including coupons or tokens detailed from it) which has been cancelled at any time after seven years from the date on which it was cancelled; or

(g) other document for which any entry in the Register is made, after six years from the date on which an entry was first made in the Register in respect of it,

provided that the Company may destroy any such type of document at a date earlier than that authorised by this Article 43.1 if a copy of such document is made and retained (whether electronically, by microfilm, by digital imaging or by other similar means) until the expiration of the period applicable to the destruction of the original of such document.

43.2 It shall be conclusively presumed in favour of the Company that every:

(a) entry in the Register purporting to have been made on the basis of a document so destroyed was duly and properly made;

(b) instrument of transfer so destroyed was duly registered;

(c) share certificate so destroyed was duly cancelled; and

(d) other document so destroyed had been properly dealt with under its terms and was valid and effective according to the particulars in the records of the Company.

43.3 This Article 43 shall only apply to the destruction of a document in good faith and without notice of any claim (regardless of the parties to it) to which the document might be relevant. Nothing in this Article 43 shall be construed as imposing any liability on the Company in respect of the destruction of any such document other than as provided for in this Article 43 which would not attach to the Company in the absence of this Article 43. References in this Article 43 to the destruction of any document include references to the disposal of it in any manner.

43.4 References in this Article 43 to instruments of transfer shall include, in relation to uncertificated shares, instructions and/or notifications made in accordance with the relevant system relating to the transfer of such shares.

44. **Sub-Division**

Any resolution authorising the Company to sub-divide its shares or any of them may determine that, as between the shares resulting from the sub-division, any of them may have any preference or advantage or be subject to any restriction as compared with the others.

45. **Fractions**

If any shares are consolidated or consolidated and then divided, the Board has power to deal with any fractions of shares which result. If the Board decides to sell any shares representing fractions, it can do so for the best price reasonably obtainable and distribute the net proceeds of sale among members in proportion to their fractional entitlements. The Board can arrange for any shares representing fractions to be entered in the Register as certificated shares if they consider that this makes it easier to sell them. The Board can sell those shares to anyone, including the Company if the legislation allows, and may authorise any person to transfer or deliver the shares to the buyer or in accordance with the buyer's instructions. The buyer shall not be bound to see to the application of the purchase money, nor shall their title to the share(s) be affected by any irregularity or invalidity in the proceedings in reference to the sale.

46. **Annual General Meetings**

An annual general meeting shall be held once a year, at such time and places (including electronic platforms) as may be determined by the Board in accordance with the requirements of the Companies Acts.

47. **Convening of General Meetings**

All meetings other than annual general meetings shall be called general meetings. The Board may, whenever it thinks fit, and shall on requisition in accordance with the Companies Acts, proceed to convene a general meeting which may be held as a physical general meeting or an electronic general meeting.

48. **Notice of General Meetings**

A general meeting shall be called by at least such minimum notice as is required or permitted by the Companies Acts. The period of notice shall in either case be exclusive of the day on which it is served or deemed to be served and of the day on which the meeting is to be held and shall be given to all members other than those who are not entitled to receive such notices from the Company. The Company may give such notice by any means or combination of means permitted by the Companies Acts.

49. **Contents of Notice of Meetings**

49.1 Subject to the provisions of the Companies Acts, every notice calling a meeting shall include all information required to be included by the Act, applicable securities laws, including US securities laws, the Nasdaq Rules or the rules of any other stock exchange or quotation system on which any shares of the Company (and/or depositary instruments over such shares) are then listed or quoted and, further, shall specify:

(a) whether the meeting shall be a physical and/or electronic general meeting;

(b) for physical general meetings, the time, date and place of the meeting (including without limitation any satellite meeting place arranged for the purposes of Article 61, which shall be identified as such in the notice);

(c) for electronic general meetings, the time, date and electronic platform for the meeting, which electronic platforms may vary from time to time and from meeting to meeting as the Board, in its sole discretion, sees fit; and

(d) with reasonable prominence in every such notice a statement that a member entitled to attend and vote is entitled to a proxy or (if they have more than one share) proxies to exercise all or any of their rights to attend, speak and vote and that a proxy need not be a member of the Company. Such notice shall also include the address of the website on which the information required by the Act is published, state the procedures with which members must comply in order to be able to attend and vote at the meeting (including the date by which they must comply), provide details of any forms to be used for the appointment of a proxy and state that a member has the right to ask questions at the meeting in accordance with the Act.

49.2 The notice shall specify the general nature of the business to be transacted at the meeting and shall set out the text of all resolutions to be considered by the meeting and shall state in each case whether it is proposed as an ordinary resolution or as a special resolution.

49.3 In the case of an annual general meeting, the notice shall also specify the meeting as such.

49.4 For the purposes of determining which persons are entitled to attend or vote at a meeting and how many votes a person may cast, the Company may specify in the notice of meeting a time, not more than 48 hours before the time fixed for the meeting (not taking into account non-working days) by which a person must be entered in the Register in order to have the right to attend or vote at the meeting or appoint a proxy to do so.

50. **Omission to Give Notice and Non-Receipt of Notice**

The accidental omission to give notice of any meeting or to send an instrument of proxy (where this is intended to be sent out with the notice) to or the non-receipt of either by, any person entitled to receive the same shall not invalidate the proceedings of that meeting.

51. **Postponement of General Meeting**

If the Board considers that it is impracticable or unreasonable to hold the physical general meeting at the declared place (or any of the declared places, in the case of a meeting to which Article 61 applies) and/or the electronic general meeting on the electronic platform specified in the notice on the date or at the time stated in the notice calling the meeting, it may change the place (or any of the places, in the case of a meeting to which Article 60 applies) or electronic platform and/or postpone the time and/or date at which the meeting is to be held (or do both). The Board shall take reasonable steps to ensure that notice of the date, time and place of, or electronic platform for, the rearranged meeting is given to any member trying to attend the meeting at the original time and place or on the original electronic platform. Notice of the date, time and place of, or electronic platform for, the rearranged meeting shall, if practicable, also be placed in at least two national newspapers published in the United Kingdom. Notice of the business to be transacted at such rearranged meeting shall not be required, provided that it is the same as the business which might properly have been transacted at the original meeting had it not been rearranged. If a meeting is rearranged in accordance with this Article 51, appointments of proxy will be valid if they are received as required by these Articles not less than 48 hours before the time appointed for holding the rearranged meeting and for the purpose of calculating this period, the Board can decide in their absolute discretion, not to take account

of any part of a day that is not a working day. The Board may also postpone or move the rearranged meeting (or do both) under this Article 51.

52. **Quorum at General Meeting**

No business shall be transacted at any general meeting unless a quorum is present. If a quorum is not present a chairman of the meeting can still be chosen and this will not be treated as part of the business of the meeting. One or more qualifying persons present at a meeting and between them holding (or being the proxy or corporate representative of the holders of) at least 33 ⅓ per cent. in number of the issued shares (excluding any shares held as treasury shares) entitled to attend and vote on the business to be transacted shall constitute a quorum.

For the purposes of this Article 52:

(a) a **"qualifying person"** is an individual who is a member, a person authorised to act as the representative of a member (being a corporation) in relation to the meeting or a person appointed as proxy of a member in relation to the meeting; and

(b) where a qualifying person is present as proxy of a member in relation to the meeting, they are treated as holding only the shares in respect of which they are authorised to exercise voting rights.

53. **Procedure if Quorum Not Present**

If a quorum is not present within 15 minutes (or such longer interval as the chairman in their absolute discretion thinks fit) from the time appointed for holding a general meeting, or if a quorum ceases to be present during a meeting, the meeting shall be dissolved if convened on the requisition of members. In any other case, the meeting shall stand adjourned to another day, (not being less than ten clear days after the date of the original meeting), and at such time and place or electronic platform as the chairman (or, in default, the Board) may determine. If at such adjourned meeting a quorum is not present within 15 minutes from the time appointed for holding the meeting, the meeting shall be dissolved.

54. **Chairman of General Meeting**

54.1 The chairman of the Board shall preside at every general meeting of the Company. If there is no such chairman or if at any meeting they shall not be present within five minutes after the time appointed for holding the meeting, or shall be unwilling to act as chairman, the deputy chairman (if any) of the Board shall, if present and willing to act, preside at such meeting. If more than one deputy chairman is present they shall agree amongst themselves who is to take the chair or, if they cannot agree, the deputy chairman who has been in office as a director the longest shall take the chair.

54.2 If no chairman or deputy chairman shall be so present and willing to act, the Directors present shall choose one of their number to act or, if there be only one Director present, they shall be chairman if willing to act. If there be no Director present and willing to act, the members present and entitled to vote shall choose one of their number to be chairman of the meeting. Nothing in these Articles shall restrict or exclude any of the powers or rights of a chairman of a meeting which are given by law.

55. **Entitlement to Attend and Speak**

A Director (and any other person invited by the chairman to do so) may attend and speak at any general meeting and at any separate meeting of the holders of any class of shares of the Company, whether or not they are a member.

56. **Adjournments**

The chairman may, with the consent of a meeting at which a quorum is present, and shall, if so directed by the meeting, adjourn any meeting from time to time (or indefinitely) and from place to place (which place may include electronic platforms) as the meeting shall determine. However, without prejudice to any other power which they may have under these Articles or at common law, the chairman may, without the need for the consent of the meeting, interrupt or adjourn any meeting from time to time and from place to place (which place may include electronic platforms) for an indefinite period if they are of the opinion that it has become necessary to do so in order to secure the proper and orderly conduct of the meeting or to give all persons entitled to do so a reasonable opportunity of attending, speaking and voting at the meeting or to ensure that the business of the meeting is properly disposed of.

57. **Notice of Adjournment**

Subject to the provisions of the Act and Article 53, if a general meeting is adjourned:

(a) indefinitely, or for more than three months, notice of the adjourned meeting shall be given in the same manner as in the case of the original meeting; and

(b) for less than three months, notice of the adjourned meeting shall be sent at least seven (7) clear days before the date of the adjourned meeting. Such notice will specify the date, time and place or electronic platform of the adjourned meeting and the general nature of the business to be transacted at the adjourned meeting.

58. **Business of Adjourned Meeting**

No business shall be transacted at any adjourned meeting other than the business which might properly have been transacted at the meeting from which the adjournment took place.

59. **Security Arrangements and Orderly Conduct**

59.1 The Board at any physical general meeting may direct that any person wishing to attend any meeting should provide such evidence of identity and submit to such searches or other security arrangements or restrictions as the Board shall consider appropriate in the circumstances and shall be entitled in its absolute discretion to refuse entry to any meeting to any person who fails to provide such evidence of identity or to submit to such searches or to otherwise comply with such security arrangements or restrictions.

59.2 The chairman at any physical general meeting shall take such action or give directions as they think fit to promote the orderly conduct of the business of the meeting as laid down in the notice of the meeting and to ensure the security of the meeting and the safety of the people attending the meeting. The chairman's decision on matters of procedure or arising incidentally from the business of the meeting shall be final as shall be their determination as to whether any matter is of such a nature.

59.3 The Board and, at any electronic general meeting, the chairman may make any arrangement and impose any requirement or restriction as is:

(a) necessary to ensure the identification of those taking part and the security of the electronic communication; and

(b) proportionate to those objectives.

In this respect, the Company is able to authorise any voting application, system or facility for electronic general meetings as it sees fit.

60. **Other Arrangements for Viewing and Hearing Proceedings at Physical General Meetings**

60.1 The Board may, in accordance with this Article 60, make arrangements for members and proxies who are entitled to attend and participate in a general meeting, but who cannot be seated in the main meeting room where the chairman will be, to attend and take part in a general meeting in an overflow room or rooms. Any overflow room will have appropriate links to the main room and will enable audio-visual communication between the meeting rooms throughout the meeting. The Board will decide how to divide members and proxies between the main room and the overflow room. If an overflow room is used, the meeting will be treated as being held and taking place in the main meeting room and the meeting will consist of all the members and proxies who are attending both in the main meeting room and the overflow room.

60.2 Details of any arrangements for overflow rooms will be set out in the notice of the meeting but failure to do so will not invalidate the meeting.

60.3 The Board may make arrangements for members and proxies who are entitled to attend and participate in a general meeting or an adjourned general meeting, to be able to view and hear the proceedings of the general meeting or adjourned general meeting and to speak at the meeting (whether by use of microphones, loudspeakers, audio-visual communications equipment or otherwise) by attending at a venue anywhere in the world not being a satellite meeting place. If the general meeting is only held as a physical meeting and not also as an electronic meeting, those attending at any such venue shall not be regarded as present at the general meeting or adjourned general meeting and shall not be entitled to vote at the general meeting at or from that venue. The inability for any reason of any member present in person or by proxy at such a venue to view or hear all or any of the proceedings of the physical general meeting or to speak at the meeting shall not in any way affect the validity of the proceedings of the general meeting.

61. **Satellite Meeting Places**

61.1 To facilitate the organisation and administration of any general meeting, the Board may decide that the meeting shall be held at two or more locations.

61.2 For the purposes of these Articles, any general meeting of the Company taking place at two or more locations shall be treated as taking place where the chairman of the meeting presides (the **principal meeting place**) and any other location where that meeting takes place is referred in these Articles as a **satellite meeting**.

61.3 A member present in person or by proxy at a satellite meeting may be counted in the quorum and may exercise all rights that they would have been able to exercise if they were present at the principal meeting place.

61.4 The Board may make and change from time to time such arrangements as they shall in their absolute discretion consider appropriate to:

(a) ensure that all members and proxies for members wishing to attend the meeting can do so;

(b) ensure that all persons attending the meeting are able to participate in the business of the meeting and to hear anyone else addressing the meeting (whether by the use of microphones, loudspeakers, audio-visual communications equipment or otherwise) in the principal meeting place and any satellite meeting place, and be heard by all other persons so present in the same way;

(c) ensure the safety of persons attending the meeting and the orderly conduct of the meeting; and

(d) restrict the numbers of members and proxies at any one location to such number as can safely and conveniently be accommodated there (including without limitation the issue of tickets or the imposition of some other means of selection).

61.5 The entitlement of any member or proxy to attend a satellite meeting shall be subject to any such arrangements then in force and stated by the notice of the meeting or adjourned meeting to apply to the meeting.

61.6 If there is a failure of communication equipment or any other failure in the arrangements for participation in the meeting at more than one place, the chairman may adjourn the meeting in accordance with Article 56. Such adjournment will not affect the validity of such meeting, or any business conducted at such meeting up to the point of adjournment, or any action taken pursuant to such meeting.

61.7 A person (**satellite chairman**) appointed by the Board shall preside at each satellite meeting. Every satellite chairman shall carry out all requests made of them by the chairman of the meeting, may take such action as they think necessary to maintain the proper and orderly conduct of the satellite meeting and shall have all powers necessary or desirable for such purposes.

62. **Electronic General Meetings**

62.1 Without prejudice to Article 61, the Board may resolve to enable persons entitled to attend a general meeting hosted on an electronic platform (such meeting being an **electronic general meeting**) to do so by simultaneous attendance by electronic means with no member necessarily in physical attendance at the electronic general meeting. The members or their proxies present shall be counted in the quorum for, and entitled to vote at, the general meeting in question, and that meeting shall be duly constituted and its proceedings valid if the chairman of the meeting is satisfied that adequate facilities are available throughout the electronic general meeting to ensure that members attending the electronic general meeting who are not present together at the same place may, by electronic means, attend, speak and vote at it.

62.2 If there is a failure of communication equipment, electronic platform, facilities, security or any other failure in the arrangements for participation in the electronic general meeting, the chairman may, without the consent of the meeting, interrupt or adjourn the meeting in accordance with Article 56. Such adjournment will not affect the validity of such meeting, or any business conducted at such meeting up to the point of adjournment, or any action taken pursuant to such meeting.

62.3 If, at any electronic general meeting, any document is required to be on display or to be available for inspection at that meeting (whether prior to or for the duration of the meeting or both), the Company shall ensure that it is available in electronic form to persons entitled to inspect it for at least the required period of time, and this will be deemed to satisfy any such requirements.

62.4 Nothing in these Articles prevents a general meeting being held both physically and electronically.

63. **Meaning of Participate**

63.1 For the purposes of Articles 51, 60 and 62 in relation to physical general meetings, the right of a member to participate in the business of any general meeting shall include without limitation the right to speak, vote on a poll, be represented by a proxy and have access to all documents which are required by the Companies Acts or these Articles to be made available at the meeting.

63.2 For the purposes of Articles 51, 60 and 62 in relation to electronic general meetings, the right of a member to participate in the business of any general meetings shall include without limitation the right to speak, vote on a poll, be represented by a proxy and have access (including electronic access) to all documents which are required by the Companies Acts or these Articles to be made available at the meeting.

64. **Amendment to Resolutions**

64.1 If an amendment to any resolution under consideration is proposed but is ruled out of order by the chairman of the meeting in good faith, any error in such ruling shall not invalidate the proceedings on the original resolution.

64.2 In the case of a resolution duly proposed as a special resolution, no amendment to it (other than an amendment to correct a patent error) may in any event be considered or voted on. In the case of a resolution duly proposed as an ordinary resolution no amendment to it (other than an amendment to correct a patent error) may be considered or voted on unless either at least 48 hours prior to the time appointed for holding the meeting or adjourned meeting at which such ordinary resolution is to be proposed, notice in writing of the terms of the amendment and intention to move the same has been lodged at the Office or received in electronic form at the electronic address at which the Company has or is deemed to have agreed to receive it or the chairman of the meeting in their absolute discretion decides that it may be considered or voted on.

65. **Members' Resolutions**

65.1 Members of the Company shall have the rights provided by the Companies Acts to have the Company circulate and give notice of a resolution which may be properly moved, and is intended to be moved, at the Company's next annual general meeting.

65.2 Expenses of complying with these rights shall be borne in accordance with the Companies Acts.

66. **Method of Voting**

66.1 At any general meeting a resolution put to a vote of the meeting shall be decided exclusively on a poll.

66.2 Resolutions put to the members at electronic general meetings will be voted exclusively on by a poll, which poll votes may be cast by such electronic means as the board in its sole discretion deems appropriate for the purposes of the meeting.

66.3 At general meetings, resolutions shall be put to the vote by the chairman of the meeting and there shall be no requirement for the resolution to be proposed or seconded by any person.

67. **Objection to Error in Voting**

No objection shall be raised to the qualification of any voter or to the counting of, or failure to count, any vote, except at the meeting or adjourned meeting at which the vote objected to is given or tendered or at which the error occurs. Any objection or error shall be referred to the chairman of the meeting and shall only vitiate the decision of the meeting on any resolution if the chairman decides that the same is of sufficient magnitude to vitiate the resolution or may otherwise have affected the decision of the meeting. The decision of the chairman of the meeting on such matters shall be final and conclusive.

68. **Procedure on a Poll**

68.1 A poll on any question of adjournment shall be taken immediately. A poll on any other matter shall be taken in such manner (including the use of ballot or voting papers or tickets or electronic means, or any combination thereof) and at such time and place or electronic platform as the chairman shall direct. The chairman may appoint scrutineers who need not be members.

68.2 It is not necessary to give notice of a poll not taken immediately if the time and place at which it is to be taken are announced at the meeting. In any other case, at least seven clear days' notice shall be given specifying the time, date and place at which the poll shall be taken. The result of the poll shall be deemed to be the resolution of the meeting at which the poll was due to be conducted.

68.3 On a poll votes may be given in person or by proxy. A member entitled to more than one vote need not, if they vote, use all their votes or cast all the votes they use in the same way.

69. **Votes of Members**

69.1 Subject to Article 69.2, the Companies Acts, to any special terms as to voting on which any shares may have been issued or may for the time being be held and to any suspension or abrogation of voting rights under these Articles, at any general meeting every member who is present in person (or by proxy or by corporate representative) shall on a poll have one vote for each share of which they are the holder. A member entitled to more than one vote need not, if they vote, use all of their votes or cast all of their votes in the same way.

69.2 If two or more persons are joint holders of a share, then in voting on any question the vote of the most senior joint holder who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders. For this purpose seniority shall be determined by the order in which the names of the holders stand in the Register.

69.3 Where in England or elsewhere a receiver or other person (by whatever name called) has been appointed by any court claiming jurisdiction in that behalf to exercise powers with respect to the property or affairs of any member on the ground (however formulated) of mental disorder, the Board may in its absolute discretion, upon or subject to production of such evidence of the appointment as the Board may require, permit such receiver or other person on behalf of such member to vote in person on a poll, by proxy on behalf of such member at any general meeting or to exercise any other right conferred by membership in relation to meetings of the Company. Evidence to the satisfaction of the Board of the authority of the person claiming to exercise the right to vote shall be deposited at the Office, or at such other place as is specified in accordance with these Articles for the deposit of instruments of proxy, at least 48 hours before the time appointed for holding the meeting or adjourned meeting at which the right to vote is to be exercised and, in default, the right to vote shall not be exercisable.

69.4 In the case of equality of votes on a poll, the chairman of the meeting shall not be entitled to a casting vote.

70. **No Right to Vote Where Sums Overdue on Shares**

No member may vote at a general meeting (or any separate meeting of the holders of any class of shares), either in person or by proxy, or to exercise any other right or privilege as a member in respect of a share held by them unless:

(a) all calls or other sums presently due and payable by them in respect of that share whether alone or jointly with any other person together with interest and expenses (if any) have been paid to the Company; or

(b) the Board determines otherwise.

71. **Voting by Proxy**

71.1 Subject to Article 71.2, an instrument appointing a proxy shall be in writing in any usual form (or in another form approved by the Board) executed under the hand of the appointer or their duly constituted attorney or, if the appointer is a corporation, under its seal or signed by a duly authorised officer or attorney or other person authorised to sign.

71.2 Subject to the Companies Acts, the Board may accept the appointment of a proxy received by electronic means on such terms and subject to such conditions as it considers fit. The appointment of a proxy received by electronic means shall not be subject to the requirements of Article 71.1.

71.3 For the purposes of Articles 71.1 and 71.2, the Board may require such reasonable evidence it considers necessary to determine:

(a) the identity of the member and the proxy; and

(b) where the proxy is appointed by a person acting on behalf of the member, the authority of that person to make the appointment.

71.4 A member may appoint another person as their proxy to exercise all or any of their rights to attend and to speak and to vote on a poll on a resolution or amendment of a resolution, or on other business arising, at a meeting or meetings of the Company. Unless the contrary is stated in it, the appointment of a proxy shall be deemed to confer authority to exercise all such rights, as the proxy thinks fit.

71.5 A proxy need not be a member.

71.6 A member may appoint more than one proxy in relation to a meeting, provided that each proxy is appointed to exercise the rights attached to different shares held by the member. When two or more valid but differing appointments of proxy are delivered or received for the same share for use at the same meeting, the one which is last validly delivered or received (regardless of its date or the date of its execution) shall be treated as replacing and revoking the other or others as regards that share. If the Company is unable to determine which appointment was last validly delivered or received, none of them shall be treated as valid in respect of that share.

71.7 Delivery or receipt of an appointment of proxy does not prevent a member attending and voting in person at the meeting or an adjournment of the meeting or on a poll.

71.8 The appointment of a proxy shall (unless the contrary is stated in it) be valid for an adjournment of the meeting as well as for the meeting or meetings to which it relates. The appointment of a proxy shall be valid for 12 months from the date of execution or, in the case of an appointment of proxy delivered by electronic means, for 12 months from the date of delivery unless otherwise specified by the Board.

71.9 Subject to the Companies Acts, the Company may send a form of appointment of proxy to all or none of the persons entitled to receive notice of and to vote at a meeting. If sent, the form shall provide for three-way voting on all resolutions (other than procedural resolutions) set out in the notice of meeting.

72. **Receipt of Proxy**

72.1 An instrument appointing a proxy and any reasonable evidence required by the Board in accordance with Article 71.3 shall:

(a) subject to Articles 72.1(c), in the case of an instrument of proxy in hard copy form, delivered to the Office, or another place in the United Kingdom specified in the notice convening the meeting or in the form of appointment of proxy or other accompanying document sent by the Company in relation to the meeting (a **proxy notification address**) not less than 48 hours before the time for holding the meeting or adjourned meeting at which the person named in the form of appointment of proxy proposes to vote or by such later time as is specified in the notice or instrument;

(b) subject to Articles 72.1(c), in the case of an appointment of a proxy sent by electronic means, where the Company has given an electronic address (a proxy notification electronic address):

(i) in the notice calling the meeting;

(ii) in an instrument of proxy sent out by or on behalf of the Company in relation to the meeting;

(iii) in an invitation to appoint a proxy issued by or on behalf of the Company in relation to the meeting; or

(iv) on a website maintained by or on behalf of the Company on which any information relating to the meeting is required by the Act to be kept,

it shall be received at such proxy notification electronic address not less than 48 hours before the time for holding the meeting or adjourned meeting at which the person named in the form of appointment of proxy proposes to vote or by such later time as is specified in any of the methods of notice in Articles 72.1(b)(i) to 72.1(b)(iv), above;

(c) in the case of an adjourned meeting to be held 48 hours or less after the time fixed for holding the original meeting, received:

(i) at a proxy notification address or a proxy notification electronic address in accordance with Articles 72.1(a) or (b);

(ii) by the chairman of the meeting or the secretary or any Director at the original meeting; or

(iii) at a proxy notification address or a proxy notification electronic address by such time as the chairman of the meeting may direct at the meeting.

In calculating the periods in this Article 72.1, no account shall be taken of any part of a day that is not a working day.

72.2 The Board may decide, either generally or in any particular case, to treat a proxy appointment as valid notwithstanding that the appointment or any of the information required under Article 71.3 has not been received in accordance with the requirements of this Article 72.

72.3 Subject to Article 72.2, if the proxy appointment and any of the information required under Article 71.3 is not received in the manner set out in Article 72.1, the appointee shall not be entitled to vote in respect of the shares in question.

72.4 Without limiting the foregoing, in relation to any uncertificated shares, the Board may from time to time:

(a) permit appointments of a proxy by means of a communication sent in electronic form in the form of an uncertificated proxy instruction; and

(b) permit supplements to, or amendments or revocations of, any such uncertificated proxy instruction by the same means.

The Board may in addition prescribe the method of determining the time at which any such uncertificated proxy instruction is to be treated as received by the Company or a participant acting on its behalf. The Board may treat any such uncertificated proxy instruction which purports to be or is expressed to be sent on behalf of a holder of a share as sufficient evidence of the authority of the person sending that instruction to send it on behalf of that holder.

73. **Revocation of Proxy**

A vote given by a proxy shall be valid in the event of the death or mental disorder of the principal or the revocation of the instrument of proxy, or of the authority under which the instrument of proxy was executed, or the transfer of the share for which the instrument of proxy is given, unless notice in writing of such death, mental disorder, revocation or transfer shall have been received by the Company at the Office, or at such other place as has been appointed for the deposit of instruments of proxy, no later than the last time at which an appointment of a proxy should have been received in order for it to be valid for use at the meeting or on the holding of the poll at which the vote was given or the poll taken.

74. **Corporate Representatives**

74.1 A corporation (whether or not a company within the meaning of the Act) which is a member may, by resolution of its directors or other governing body, authorise such person as it thinks fit to act as its representative (or, as the case may be, representatives) at any meeting of the Company or at any separate meeting of the holders of any class of shares.

74.2 Any person so authorised shall be entitled to exercise the same powers on behalf of the corporation (in respect of that part of the corporation's holdings to which the authority relates) as the corporation could exercise if it were an individual member.

74.3 The corporation shall for the purposes of these Articles be deemed to be present in person and at any such meeting if a person so authorised is present at it, and all references to attendance and voting in person shall be construed accordingly.

74.4 A Director, the Secretary or some person authorised for the purpose by the Secretary may require the representative to produce a certified copy of the resolution so authorising them or such other evidence of their authority reasonably satisfactory to them before permitting them to exercise their powers.

74.5 A vote given by a corporate representative shall be valid notwithstanding that they are no longer authorised to represent the member unless notice of the revocation of appointment was delivered in writing to the Company at such place or address and by such time as is specified in Article 73 for the revocation of the appointment of a proxy.

75. **Failure to Disclose Interests in Shares**

75.1 If a member, or any other person appearing to be interested in shares held by that member, has been issued with a notice under section 793 of the Act (**section 793 notice**) and has failed in relation to any shares (**default shares,** which expression includes any shares issued after the date of such notice in right of those shares) to give the Company the information required by the section 793 notice within the prescribed period from the service of the notice, the following sanctions shall apply unless the Board determines otherwise:

(a) the member shall not be entitled in respect of the default shares to be present or to vote (either in person or by representative or proxy) at any general meeting or at any separate meeting of the holders of any class of shares or on any poll or to exercise any other right conferred by membership in relation to any such meeting or poll; and

(b) where the default shares represent at least 0.25% in nominal value of the issued shares of their class (calculated exclusive of any shares held as treasury shares):

(i) any dividend or other money payable for such shares shall be withheld by the Company, which shall not have any obligation to pay interest on it, and the member shall not be entitled to elect, pursuant to Article 133, to receive shares instead of that dividend; and

(ii) no transfer, other than an excepted transfer, of any shares held by the member shall be registered unless the member themself is not in default of supplying the required information and the member proves to the satisfaction of the Board that no person in default of supplying such information is interested in any of the shares that are the subject of the transfer.

For the purposes of ensuring Article 75.1(b)(ii) can apply to all shares held by the member, the Company may in accordance with the uncertificated securities rules, issue a written notification to the Operator requiring conversion into certificated form of any share held by the member in uncertificated form.

75.2 Where the sanctions under Article 75.1 apply in relation to any shares, they shall cease to have effect (and any dividends withheld under Article 75.1(b) shall become payable):

(a) if the shares are transferred by means of an excepted transfer but only in respect of the shares transferred; or

(b) at the end of the period of seven days (or such shorter period as the Board may determine) following receipt by the Company of the information required by the

section 793 notice and the Board being fully satisfied that such information is full and complete.

75.3 Where, on the basis of information obtained from a member in respect of any share held by them, the Company issues a section 793 notice to any other person, it shall at the same time send a copy of the notice to the member, but the accidental omission to do so, or the non-receipt by the member of the copy, shall not invalidate or otherwise affect the application of Article 75.1.

75.4 For the purposes of this Article 75:

(a) a person, other than the member holding a share, shall be treated as appearing to be interested in that share if the member has informed the Company that the person is, or may be, so interested, or if the Company (after taking account of any information obtained from the member or, pursuant to a section 793 notice, from anyone else) knows or has reasonable cause to believe that the person is, or may be, so interested;

(b) **interested** shall be construed as it is for the purpose of section 793 of the Act;

(c) reference to a person having failed to give the Company the information required by a notice, or being in default as regards supplying such information, includes reference:

(i) to them having failed or refused to give all of any part of it; and

(ii) to them having given information which they know to be false in a material particular or having recklessly given information which is false in a material particular;

(d) **prescribed period** means 14 days;

(e) **excepted transfer** means, in relation to any shares held by a member:

(i) a transfer by way of or pursuant to acceptance of a takeover offer for the Company (within the meaning of section 974 of the Act); or

(ii) a transfer in consequence of a sale made through a recognised investment exchange (as defined in section 285 of the FSMA) or any other stock exchange outside the United Kingdom on which the Company's shares or depositary instruments representing such shares are normally traded; or

(iii) a transfer which is shown to the satisfaction of the Board to be made in consequence of a sale of the whole of the beneficial interest in the shares to a person who is unconnected with the member and with any other person appearing to be interested in the shares.

75.5 Nothing contained in this Article 75 shall be taken to limit the powers of the Company under section 794 of the Act.

76. **Power of Sale of Shares of Untraced Members**

76.1 The Company shall be entitled to sell at the best price reasonably obtainable any share of a member, or any share to which a person is entitled by transmission, if and provided that:

(a) during the period of 12 years before the date of sending of the notice referred to in Article 76.1(b) no cheque, order or warrant in respect of such share sent by the Company through the post in a pre-paid envelope addressed to the member or to the person entitled by transmission to the share, at their address on the Register or other last known address given by the member or person to which cheques, orders or warrants in respect of such share are to be sent has been cashed and the Company has received no communications in respect of such share from such member or person entitled, provided that during such period of 12 years the Company has paid at least three cash dividends (whether interim or final) and no such dividend has been claimed by the person entitled to it;

(b) on or after expiry of the said period of 12 years, the Company has given notice of its intention to sell such share by sending a notice to the member or person entitled by transmission to the share at their address on the Register or other last known address given by the member or person entitled by transmission to the share and before sending such a notice to the member or other person entitled by transmission, the Company must have used reasonable efforts to trace the member or other person entitled, engaging, if considered appropriate, a professional asset reunification company or other tracing agent and/or giving notice of its intention to sell the share by advertisement in a national newspaper and in a newspaper circulating in the area of the address of the member or person entitled by transmission to the share shown in the Register;

(c) during the further period of three months following the date of such notice and prior to the exercise of the power of sale the Company has not received any communication in respect of such share from the member or person entitled by transmission; and

(d) the Company has given notice to Nasdaq of its intention to make such sale, if shares of the class concerned, or certificated or uncertificated depositary instruments over such shares, are listed on Nasdaq or dealt in on any other recognised stock exchange on which the shares are listed.

76.2 To give effect to any sale of shares under this Article 76, the Board may authorise some person to transfer the shares in question and may enter the name of the transferee in respect of the transferred shares in the Register even if no share certificate has been lodged for such shares and may issue a new certificate to the transferee. An instrument of transfer executed by that person shall be as effective as if it had been executed by the holder of, or the person entitled by transmission to, the shares. The buyer shall not be bound to see to the application of the purchase monies, nor shall their title to the shares be affected by any irregularity or invalidity in the proceedings in reference to the sale. If the shares are in uncertificated form, in accordance with the uncertificated securities rules, the Board may issue a written notification to the Operator requiring the conversion of the share to certificated form.

76.3 If during the period of 12 years referred to in Article 76.1, or during any period ending on the date when all the requirements of Articles 76.1(a) to 76.1(d) have been satisfied, any additional shares have been issued in respect of those held at the beginning of, or previously so issued during, any such period and all the requirements of Articles 76.1(b) to

76.1(d) have been satisfied in regard to such additional shares, the Company shall also be entitled to sell the additional shares.

77. **Application of Proceeds of Sale of Shares of Untraced Members**

The Company shall account to the member or other person entitled to the share for the net proceeds of a sale under Article 76 by carrying all monies relating to such sale to a separate account. The Company shall be deemed to be a debtor to, and not a trustee for, such member or other person in respect of such monies. Monies carried to such separate account may either be employed in the business of the Company or invested in such investments as the Board may think fit. No interest shall be payable to such member or other person in respect of such monies and the Company does not have to account for any money earned on them.

78. **Number of Directors**

Unless otherwise determined by the Company by ordinary resolution, the number of Directors (other than any alternate Directors) shall be at least two and shall not be more than 15.

79. **Power of Company to Appoint Directors**

Subject to these Articles and the Companies Acts, the Company may by ordinary resolution appoint a person who is willing to act to be a Director, either to fill a vacancy or as an addition to the existing Board but the total number of Directors shall not exceed any maximum number fixed in accordance with these Articles.

80. **Power of Board to Appoint Directors**

80.1 Subject to these Articles, the Board shall have power at any time to appoint any person who is willing to act as a Director, either to fill a vacancy or as an addition to the existing Board but the total number of Directors shall not exceed any maximum number fixed in accordance with these Articles.

80.2 A Director so appointed shall hold office only until:

(a) the next annual general meeting following their appointment, when they shall retire, but shall then be eligible for re-election and a Director so retiring shall not be taken into account in determining the number of Directors to retire by rotation at such meeting in accordance with Article 82; or

(b) his earlier resignation or removal in accordance with these Articles.

81. **Eligibility of New Directors**

81.1 No person, other than a retiring Director (by rotation or otherwise), shall be appointed or re-appointed a Director at any general meeting unless:

(a) they are recommended by the Board; or

(b) at least seven but not more than 42 clear days before the date appointed for the meeting the Company has received notice from a member (other than the person proposed) entitled to vote at the meeting of their intention to propose a resolution for the appointment or re-appointment of that person, stating the particulars which would, if they were so appointed or re-appointed, be required to be included in the Company's register of Directors and a notice executed by that person of their willingness to be appointed or re-appointed, is lodged at the Office.

81.2 A Director need not be a member of the Company.

82. **Retirement of Directors**

At each annual general meeting of the Company following the Listing every Director shall retire from office. A retiring Director may offer themselves for re-appointment by the members and a Director that is so re-appointed will be treated as continuing in office without a break.

83. **Timing of Retirement from Office**

A Director who retires at an annual general meeting shall (unless they are removed from office or their office is vacated in accordance with these Articles) retain office until the close of the meeting at which they retire.

84. **Procedure if Insufficient Directors Appointed**

84.1 If:

(a) at the annual general meeting in any year any resolution or resolutions for the appointment or re-appointment of the persons eligible for appointment or re-appointment as Directors are put to the meeting and lost; and

(b) at the end of that meeting the number of Directors is fewer than any minimum number of Directors required under Article 78,

all retiring Directors who stood for re-appointment at that meeting (**Retiring Directors**) shall be deemed to have been re-appointed as Directors and shall remain in office but the Retiring Directors may only act for the purpose of filling vacancies, convening general meetings of the Company and performing such duties as are essential to maintain the Company as a going concern, and not for any other purpose.

84.2 The Retiring Directors shall convene a general meeting as soon as reasonably practicable following the meeting referred to in Article 84.1 and they shall retire from office at that meeting. If at the end of any meeting convened under this Article 84.2 the number of Directors is fewer than any minimum number of Directors required under Article 78, the provisions of this Article 84.2 shall also apply to that meeting.

85. **Removal of Directors**

In addition to any power of removal conferred by the Companies Acts, the Company may by special resolution, or by ordinary resolution of which special notice has been given in accordance with section 312 of the Act, remove a Director before the expiry of their period of office (without prejudice to a claim for damages for breach of contract or otherwise) and may (subject to these Articles) by ordinary resolution appoint another person who is willing to act to be a Director in their place.

86. **Vacation of Office by Director**

86.1 Without prejudice to the provisions for retirement (by rotation or otherwise) contained in these Articles, the office of a Director shall be vacated if:

(a) the Director resigns by notice in writing delivered to the Secretary at the Office or at an address specified by the Company for the purposes of communication by electronic means or tendered at a Board meeting;

(b) the Director offers to resign by notice in writing delivered to the Secretary at the Office or at an address specified by the Company for the purposes of communication by electronic means or tendered at a Board meeting and the Board resolves to accept such offer;

(c) the Director is requested to resign by all of the other Directors by notice in writing addressed to them at their address as shown in the register of Directors (without prejudice to any claim for damages which they may have for breach of any contract between themselves and the Company);

(d) the Director ceases to be a Director by virtue of any provision of the Companies Acts, is removed from office pursuant to these Articles or the Act or becomes prohibited by law or by the rules of any applicable stock exchange from being a Director;

(e) the Director becomes bankrupt or makes an arrangement or composition with their creditors generally;

(f) a registered medical practitioner who is treating that Director gives a written opinion to the Company stating that that Director has become physically or mentally incapable of acting as a Director and may remain so for more than three months, or they are or have been suffering from mental or physical ill health and the Board resolves that their office be vacated; or

(g) the Director is absent (whether or not their alternate Director appointed by them attends), without the permission of the Board, from Board meetings for six consecutive months and a notice is served on them personally, or at their residential address provided to the Company under section 165 of the Act signed by all the other Directors stating that they shall cease to be a Director with immediate effect (and such notice may consist of several copies each signed by one or more Directors).

86.2 If the office of a Director is vacated for any reason, they shall cease to be a member of any committee or sub-committee of the Board.

87. **Resolution as to Vacancy Conclusive**

A resolution of the Board declaring a Director to have vacated office under the terms of Article 86 shall be conclusive as to the fact and ground of vacation stated in the resolution.

88. **Appointment of Alternate Directors**

88.1 Each Director may appoint any person (including another Director) to be their alternate and may at their discretion remove an alternate Director so appointed. Any appointment or removal of an alternate Director must be by written notice delivered to the Office or at an address specified by the Company for the purposes of communication by electronic means or tendered at a Board meeting or in any other manner approved by the Board. The appointment requires the approval of the Board unless it has been previously approved or the appointee is another Director.

88.2 An alternate Director must provide the particulars, and sign any form for public filing required by the Companies Acts relating to their appointment.

89. **Alternate Directors' Participation in Board Meetings**

89.1 Every alternate Director is (subject to them giving to the Company an address within the United Kingdom at which notices may be served on them (and, if applicable, an address in relation to which electronic communications may be received by them)) entitled to receive notice of all meetings of the Board and all committees of the Board of which their appointor is a member and, in their appointor's absence, to attend and vote at such meetings and to exercise all the powers, rights, duties and authorities of their appointor. Each person acting as an alternate Director shall have a separate vote at Board meetings for each Director for whom they act as alternate Director in addition to their own vote if they are also a Director, but they shall count as only one for the purpose of determining whether a quorum is present.

89.2 Signature by an alternate Director of any resolution in writing of the Board or a committee of the Board will, unless the notice of their appointment provides otherwise, be as effective as signature by their appointor.

90. **Alternate Directors Responsible for Own Acts**

Each person acting as an alternate Director will be an officer of the Company, will alone be responsible to the Company for their own acts and defaults and will not be deemed to be the agent of the Director appointing them.

91. **Interests of Alternate Director**

An alternate Director is entitled to contract and be interested in and benefit from contracts or arrangements with the Company, to be repaid expenses and to be indemnified to the same extent as if they were a Director. However, they are not entitled to receive from the Company any fees for their services as alternate, except such part (if any) of the fee payable to their appointor as such appointor may by written notice to the Company direct.

92. **Revocation of Alternate Director**

An alternate Director will cease to be an alternate Director:

(a) if their appointor revokes their appointment; or

(b) if they resign their office by notice in writing to the Company; or

(c) if their appointor ceases for any reason to be a Director, provided that if any Director retires but is re-appointed or deemed to be re-appointed at the same meeting, any valid appointment of an alternate Director which was in force immediately before their retirement shall remain in force; or

(d) if any event happens in relation to them which, if they were a Director otherwise appointed, would cause them to vacate their office.

93. **Arrangements with Non-Executive Directors**

Subject to the provisions of the Act, the Board may enter into, vary and terminate an agreement or arrangement with any Director who does not hold executive office for the provision of his services to the Company. Any such agreement or arrangement may be made on such terms as the Board determines (including as to fees), provided that the terms of any such agreement comply with the requirements of Nasdaq (including the Nasdaq Rules) and applicable law. Any fees payable under this Article 93 shall be distinct from any salary, remuneration or other

amounts payable to a Director under any other provisions of these Articles and shall accrue from day to day.

94. **Expenses**

Each Director may be paid their reasonable travelling, hotel and other expenses properly incurred by them in or about the performance of their duties as Director, including any expenses incurred in attending meetings of the Board or any committee of the Board or general meetings or separate meetings of the holders of any class of shares or debentures of the Company. Subject to the Act, the Directors shall have the power to make arrangements to provide a Director with funds to meet expenditure incurred or to be incurred by them for the purposes of the Company or for the purpose of enabling them to perform their duties as an officer of the Company or to enable them to avoid incurring any such expenditure.

95. **Additional Remuneration**

If by arrangement with the Board any Director shall perform or render any special duties or services outside their ordinary duties as a Director and not in their capacity as a holder of employment or executive office, they may be paid such reasonable additional remuneration (whether by way of salary, commission, participation in profits or otherwise) as the Board may determine.

96. **Remuneration of Executive Directors**

The salary or remuneration of any Director appointed to hold any employment or executive office in accordance with these Articles may be either a fixed sum of money, or may altogether or in part be governed by business done or profits made or otherwise determined by the Board, and may be in addition to or instead of any fee payable to them for their services as Director under these Articles.

97. **Pensions and Other Benefits**

97.1 The Board may exercise all the powers of the Company to provide pensions or other retirement or superannuation benefits and to provide death or disability benefits or other allowances or gratuities (whether by insurance or otherwise) for any person who is or has at any time been a Director or employee of:

(a) the Company;

(b) any company which is or was a holding company or a subsidiary undertaking of the Company;

(c) any company which is or was allied to or associated with the Company or a subsidiary undertaking or holding company of the Company; or

(d) a predecessor in business of the Company or of any holding company or subsidiary undertaking of the Company,

and, in each case, for any member of their family (including a spouse or former spouse) and any person who is or was dependent on them.

97.2 The Board may establish, maintain, subscribe and contribute to any scheme, institution, association, club, trust or fund and pay premiums and, subject to the Companies Acts, lend money or make payments to, guarantee or give an indemnity in respect of, or give any financial or other assistance in connection with any of the matters set out in Article 97.1 above. The

Board may procure any of such matters to be done by the Company either alone or in conjunction with any other person. Any Director or former Director shall be entitled to receive and retain for their own benefit any pension or other benefit provided under this Article 97.2 and shall not have to account for it to the Company. The receipt of any such benefit will not disqualify any person from being or becoming a Director of the Company.

98. **Powers of the Board**

98.1 Subject to the Companies Acts, these Articles and to any directions given by special resolution of the Company, the business of the Company will be managed by the Board, which may exercise all the powers of the Company, whether relating to the management of the business or not.

98.2 No alteration of these Articles and no such direction given by the Company shall invalidate any prior act of the Board which would have been valid if such alteration had not been made or such direction had not been given. Provisions contained elsewhere in these Articles as to any specific power of the Board shall not be deemed to limit the general powers given by this Article 98.

99. **Powers of Directors if Less Than Minimum Number**

If the number of Directors is less than the minimum prescribed in Article 78 or decided by the Company by ordinary resolution, the remaining Director or Directors may act only for the purposes of appointing an additional Director or Directors to make up that minimum or convening a general meeting of the Company for the purpose of making such appointment. If no Director or Directors is or are able or willing to act, a general meeting may be convened in accordance with these Articles for the purpose of appointing Directors. An additional Director appointed in this way holds office (subject to these Articles) only until the dissolution of the next annual general meeting after their appointment unless they are reappointed during the annual general meeting.

100. **Powers of Executive Directors**

The Board or any committee authorised by the Board may:

(a) delegate or entrust to and confer on any Director holding executive office (including a chief executive or managing director, if appointed) such of its powers, authorities and discretions (with power to sub-delegate) for such time, on such terms and subject to such conditions as it thinks fit; and

(b) revoke, withdraw, alter or vary all or any of such powers.

101. **Delegation to Committees**

101.1 The Board may delegate any of its powers, authorities and discretions (with power to sub-delegate) for such time on such terms and subject to such conditions as it thinks fit to any committee consisting of one or more Directors and (if thought fit) one or more other persons provided that:

(a) a majority of the members of a committee shall be Directors; and

(b) no resolution of a committee shall be effective unless a majority of those present when it is passed are Directors or alternate Directors.

101.2 The Board may confer such powers either collaterally with, or to the exclusion of and in substitution for, all or any of the powers of the Board in that respect and may revoke, withdraw,

alter or vary any such powers and discharge any such committee in whole or in part. Insofar as any power, authority or discretion is so delegated, any reference in these Articles to the exercise by the Board of such power, authority or discretion shall be construed as if it were a reference to the exercise of such power, authority or discretion by such committee.

102. **Local Management**

102.1 The Board may establish any local or divisional boards or agencies for managing any of the affairs of the Company in any specified locality, either in the United Kingdom or elsewhere, and appoint any persons to be members of such local or divisional board, or any managers or agents, and may fix their remuneration.

102.2 The Board may delegate to any local or divisional board, manager or agent so appointed any of its powers, authorities and discretions (with power to sub-delegate) and may authorise the members of any such local or divisional board, or any of them, to fill any vacancies and to act notwithstanding vacancies. Any such appointment or delegation under this Article 102 may be made, on such terms and conditions as the Board may think fit. The Board may confer such powers either collaterally with, or to the exclusion of and in substitution for, all or any of the powers of the Board in that respect and may revoke, withdraw, alter or vary all or any of such powers.

102.3 Subject to any terms and conditions expressly imposed by the Board, the proceedings of any local or divisional board or agency with two or more members shall be governed by such of these Articles as regulate the proceedings of the Board, so far as they are capable of applying.

103. **Board Meetings**

103.1 The Board can decide when and where to have meetings and how they will be conducted. They may also adjourn meetings.

103.2 A Board meeting can be called by any Director. The Secretary must call a Board meeting if asked to do so by a Director.

104. **Notice of Board Meetings**

104.1 Notice of a Board meeting shall be deemed to be duly given to a Director if it is given to them personally or by word of mouth or given in writing or by electronic means to them at their last known address or any other address given by them to the Company for that purpose.

104.2 A Director may waive the requirement that notice be given to them of any Board meeting, either prospectively or retrospectively and any retrospective waiver shall not affect the validity of the meeting or of any business conducted at the meeting.

105. **Quorum**

105.1 The quorum necessary for the transaction of business shall be at least two persons, each being a Director or an alternate Director. A duly convened meeting of the Board at which a quorum is present shall be competent to exercise all or any of the authorities, powers, and discretions for the time being vested in or exercisable by the Board.

105.2 If a Director ceases to be a Director at a Board meeting, they can continue to be present and to act as a Director and be counted in the quorum until the end of the meeting if no other Director objects and if otherwise a quorum of Directors would not be present.

106. **Chairman**

106.1 The Board may appoint one or more of its body as chairman or joint chairman and one or more of its body as deputy chairman of its meetings and may determine the period for which they are or they are to hold office and may at any time remove them from office.

106.2 If no such chairman or deputy chairman is elected, or if at any meeting neither a chairman nor a deputy chairman is present within ten minutes of the time appointed for holding the same, the Directors present shall choose one of their number to be chairman of such meeting. In the event two or more joint chairmen or, in the absence of a chairman, two or more deputy chairman being present, the joint chairman or deputy chairman to act as chairman of the meeting shall be decided by those Directors present.

107. **Voting**

Questions arising at any Board meeting shall be determined by a majority of votes. In the case of an equality of votes the chairman of that meeting shall have a second or casting vote (unless they are not entitled to vote on the resolution in question).

108. **Participation by Telephone or Other Form of Communication**

108.1 Any Director or their alternate may validly participate in a meeting of the Board or a committee of the Board through the medium of conference telephone or any other form of communications equipment (whether in use when these Articles are adopted or developed subsequently), provided that all persons participating in the meeting are able to hear and speak to each other throughout such meeting. A person so participating by telephone or other communication shall be deemed to be present in person at the meeting and shall be counted in a quorum and entitled to vote.

108.2 A resolution passed at any meeting held in the above manner, and signed by the chairman of the meeting, shall be as valid and effectual as if it had been passed at a meeting of the Board (or committee, as the case may be) duly convened and held.

109. **Resolution in Writing**

109.1 A resolution in writing signed or confirmed electronically by all the Directors for the time being entitled to receive notice of a Board meeting and to vote on the resolution and not being less than a quorum (or by all the members of a committee of the Board for the time being entitled to receive notice of such committee meeting and to vote on the resolution and not being less than a quorum of that committee), shall be as valid and effective for all purposes as a resolution duly passed at a meeting of the Board (or committee, as the case may be).

109.2 Such a resolution may consist of several documents or electronic communications in the same form each signed or authenticated by one or more of the Directors or members of the relevant committee.

110. **Proceedings of Committees**

All committees of the Board shall, in the exercise of the powers delegated to them and in the transaction of business, conform with any mode of proceedings and regulations which the Board may prescribe and subject to this shall be governed by such of these Articles as regulate the proceedings of the Board as are capable of applying.

111. **Minutes of Proceedings**

111.1 The Board shall keep minutes of all shareholder meetings, all Board meetings and meetings of committees of the Board. The minutes must include the names of the Directors present.

111.2 Any such minutes, if purporting to be signed by the chairman of the meeting at which the proceedings were held or by the chairman of the next meeting or the Secretary, shall be evidence of the matters stated in such minutes without any further proof.

112. **Validity of Proceedings**

All acts done by a meeting of the Board, or of a committee of the Board, or by any person acting as a Director, alternate Director or member of a committee shall be valid even if it is discovered afterwards that there was some defect in the appointment of any person or persons acting, or that they or any of them were or was disqualified from holding office or not entitled to vote, or had in any way vacated their office.

113. **Transactions or Other Arrangements With the Company**

113.1 Subject to the Companies Acts and provided they have declared the nature and extent of their interest in accordance with the requirements of the Companies Acts, a Director who is in any way, whether directly or indirectly, interested in an existing or proposed transaction or arrangement with the Company may:

(a) be a party to, or otherwise interested in, any transaction or arrangement with the Company or in which the Company is otherwise (directly or indirectly) interested;

(b) act by themselves or through their firm in a professional capacity for the Company (otherwise than as auditor) and they shall be entitled to remuneration for professional services as if they were not a Director;

(c) be or become a director or other officer of, or employed by, or a party to a transaction or arrangement with, or otherwise interested in, any body corporate in which the Company is otherwise (directly or indirectly) interested; and

(d) hold any office or place of profit with the Company (except as auditor) in conjunction with their office of Director for such period and upon such terms, including as to remuneration as the Board may decide.

113.2 A Director shall not, save as they may otherwise agree, be accountable to the Company for any benefit which they derive from any such contract, transaction or arrangement or from any such office or employment or from any interest in any such body corporate and no such contract, transaction or arrangement shall be liable to be avoided on the grounds of any such interest or benefit nor shall the receipt of any such remuneration or other benefit constitute a breach of their duty under section 176 of the Act.

114. **Authorisation of Directors' Conflicts of Interest**

114.1 The Board may, in accordance with the requirements set out in this Article 114, authorise any matter or situation proposed to them by any Director which would, if not authorised, involve a Director (an **Interested Director**) breaching their duty under the Act to avoid conflicts of interest.

114.2 A Director seeking authorisation in respect of a conflict of interest shall declare to the Board the nature and extent of their interest in a conflict of interest as soon as is reasonably practicable.

The Director shall provide the Board with such details of the matter as are necessary for the Board to decide how to address the conflict of interest together with such additional information as may be requested by the Board.

114.3 Any authorisation under this Article 114 will be effective only if:

(a) to the extent permitted by the Act, 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 these Articles;

(b) any requirement as to the quorum for consideration of the relevant matter is met without counting the Interested Director and any other interested Director; and

(c) the matter is agreed to without the Interested Director voting or would be agreed to if the Interested Director's and any other interested Director's vote is not counted.

114.4 Any authorisation of a conflict of interest under this Article 114 must be recorded in writing (but the authority shall be effective whether or not the terms are so recorded) and may (whether at the time of giving the authorisation or subsequently):

(a) extend to any actual or potential conflict of interest which may reasonably be expected to arise out of the matter or situation so authorised;

(b) provide that the Interested Director be excluded from the receipt of documents and information and the participation in discussions (whether at meetings of the Directors or otherwise) related to the conflict of interest;

(c) impose upon the Interested Director such other terms for the purposes of dealing with the conflict of interest as the Directors think fit;

(d) provide that, where the Interested Director obtains, or has obtained (through their involvement in the conflict of interest and otherwise than through their position as a Director) information that is confidential to a third party, they will not be obliged to disclose that information to the Company, or to use it in relation to the Company's affairs where to do so would amount to a breach of that confidence; and

(e) permit the Interested Director to absent themselves from the discussion of matters relating to the conflict of interest at any meeting of the Directors and be excused from reviewing papers prepared by, or for, the Directors to the extent they relate to such matters.

114.5 Where the Directors authorise a conflict of interest, the Interested Director will be obliged to conduct themselves in accordance with any terms and conditions imposed by the Directors in relation to the conflict of interest.

114.6 The Directors may revoke or vary such authorisation at any time, but this will not affect anything done by the Interested Director, prior to such revocation or variation, in accordance with the terms of such authorisation.

114.7 A Director is not required, by reason of being a Director (or because of the fiduciary relationship established by reason of being a Director), to account to the Company for any remuneration, profit or other benefit which they derive from or in connection with a relationship involving a conflict of interest which has been authorised by the directors or by the Company in general meeting (subject in each case to any terms, limits or conditions attaching to that authorisation) and no contract shall be liable to be avoided on such grounds.

114.8 A Director's receipt of any remuneration or other benefit referred to in Article 114.7 does not constitute an infringement of their duties under the Act.

114.9 A transaction or arrangement referred to in 114.7 is not liable to be avoided on the ground of any remuneration, benefit or interest referred to in that Article.

115. **Directors' Permitted Interests**

115.1 A Director cannot vote or be counted in the quorum on any resolution relating to any transaction or arrangement with the Company in which they have an interest and which may reasonably be regarded as likely to give rise to a conflict of interest but can vote (and be counted in the quorum) on the following:

(a) giving them any security, guarantee or indemnity for any money or any liability which they, or any other person, has lent or obligations they or any other person has undertaken at the request, or for the benefit, of the Company or any of its subsidiary undertakings;

(b) giving any security, guarantee or indemnity to any other person for a debt or obligation which is owed by the Company or any of its subsidiary undertakings, to that other person if the Director has taken responsibility for some or all of that debt or obligation. The Director can take this responsibility by giving a guarantee, indemnity or security;

(c) a proposal or contract relating to an offer of any shares or debentures or other securities for subscription or purchase by the Company or any of its subsidiary undertakings, if the Director takes part because they are a holder of shares, debentures or other securities, or if they take part in the underwriting or sub underwriting of the offer;

(d) any arrangement for the benefit of employees of the Company or any of its subsidiary undertakings which only gives them benefits which are also generally given to employees to whom the arrangement relates;

(e) any arrangement involving any other company if the Director (together with any person connected with the 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 they know that they have a Relevant Interest;

(f) a contract relating to insurance which the Company can buy or renew for the benefit of the Directors or a group of people which includes Directors; and

(g) a contract relating to a pension, superannuation or similar scheme or a retirement, death, disability benefits scheme or employees' share scheme which gives the Director benefits which are also generally given to the employees to whom the scheme relates.

115.2 A Director cannot vote or be counted in 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 the Company or any other company in which the Company has an interest.

115.3 Where the Directors are considering proposals about the appointment, or the settlement or variation of the terms or the termination of the appointment of two or more Directors to other offices or places of profit with the Company or any company in which the Company has an

interest, a separate resolution may be put in relation to each Director and in that case each of the Directors concerned shall be entitled to vote and be counted in the quorum in respect of each resolution unless it concerns their own appointment or the settlement or variation of the terms or the termination of their own appointment or the appointment of another director to an office or place of profit with a company in which the Company has an interest and the Director seeking to vote or be counted in the quorum has a Relevant Interest in it.

115.4 A company shall be deemed to be one in which the Director has a **Relevant Interest** if and so long as (but only if and so long as) they are to their knowledge (either directly or indirectly) the holder of or beneficially interested in one per cent 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 members of that company. In relation to an alternate Director, an interest of their appointor shall be treated as an interest of the alternate Director without prejudice to any interest which the alternate Director has otherwise. Where a company in which a Director has a Relevant Interest is interested in a contract, they also shall be deemed interested in that contract.

115.5 If a question arises at a Board meeting about whether a Director (other than the chairman of the meeting) has an interest which is likely to give rise to a conflict of interest, or whether they can vote or be counted in the quorum, and the Director does not agree to abstain from voting on the issue or not to be counted in the quorum, the question must be referred to the chairman of the meeting. The chairman's ruling about the relevant Director is final and conclusive, unless the nature and extent of the Director's interests have not been fairly disclosed to the Directors. If the question arises about the chairman of the meeting, the question must be directed to the Directors. The chairman cannot vote on the question but can be counted in the quorum. The Directors' resolution about the chairman is final and conclusive, unless the nature and extent of the chairman's interests have not been fairly disclosed to the Directors.

116. **General**

116.1 For the purposes of Articles 113 to 115 inclusive (which shall apply equally to alternate Directors):

(a) An interest of a person who is connected (which word shall have the meaning given to it by section 252 of the Act) with a Director shall be treated as an interest of the Director.

(b) A contract includes references to any proposed contract and to any transaction or arrangement or proposed transaction or arrangement whether or not constituting a contract.

(c) A conflict of interest includes a conflict of interest and duty and a conflict of duties.

(d) Subject to the Companies Acts, the Company may by ordinary resolution suspend or relax the provisions of Articles 113 to 115 to any extent or ratify any contract not properly authorised by reason of a contravention of any of the provisions of Articles 113 to 115.

117. **Power of Attorney**

The Board may, by power of attorney or otherwise, appoint any person or persons to be the agent or attorney of the Company and may delegate to any such person or persons any of its powers, authorities and discretions (with power to sub-delegate), in each case for such purposes and for such time, on such terms (including as to remuneration) and conditions as it thinks fit. The Board may confer such powers either collaterally with, or to the exclusion of and

in substitution for, all or any of the powers of the Board in that respect and may revoke, withdraw, alter or vary any of such powers.

118. **Exercise of Voting Power**

The Board may exercise or cause to be exercised the voting power conferred by the shares in any other company held or owned by the Company, or any power of appointment to be exercised by the Company, in such manner as it thinks fit (including the exercise of the voting power or power of appointment in favour of the appointment of any Director as a director or other officer or employee of such company or in favour of the payment of remuneration to the directors, officers or employees of such company).

119. **Provision for Employees on Cessation of Business**

The Board may, by resolution, sanction the exercise of the power to make provision for the benefit of persons employed or formerly employed by the Company or any of its subsidiary undertakings, in connection with the cessation or the transfer to any person of the whole or part of the undertaking of the Company or that subsidiary undertaking, but any such resolution shall not be sufficient for payments to or for the benefit of directors, former directors or shadow directors.

120. **Overseas Registers**

Subject to the Companies Acts, the Company may keep an overseas, local or other register and the Board may make and vary such regulations as it thinks fit respecting the keeping of any such register.

121. **Borrowing Powers**

Subject to these Articles and the Companies Acts, the Board may exercise all the powers of the Company to:

(a) borrow money;

(b) indemnify and guarantee;

(c) mortgage or charge all or any part of the undertaking, property and assets (present and future) and uncalled capital of the Company;

(d) create and issue debentures and other securities; and

(e) give security either outright or as collateral security for any debt, liability or obligation of the Company or of any third party.

122. **Power to Authenticate Documents**

122.1 Any Director, the Secretary or any person appointed by the Board for the purpose shall have power to authenticate any documents affecting the constitution of the Company and any resolution passed by the Company or the Board or any committee, and any books, records, documents and accounts relating to the business of the Company, and to certify copies or extracts as true copies or extracts. Where any books, records, documents or accounts are not at the Office, the local manager or other officer of the Company who has their custody shall be deemed to be a person appointed by the Board for this purpose. A document purporting to be a copy of a resolution, or an extract from the minutes of a meeting, of the Company or the Board or any committee which is so certified shall be conclusive evidence in favour of all persons

dealing with the Company that such resolution has been duly passed or, as the case may be, that any minute so extracted is a true and accurate record of proceedings at a duly constituted meeting.

123. **Use of Seals**

123.1 The Board shall provide for the safe custody of the Seal. A Seal shall not be used without the authority of the Board or of a committee of the Board so authorised.

123.2 Subject as otherwise provided in these Articles, every document which is sealed using the Seal must be signed by at least one authorised person in the presence of a witness who attests the signature. An authorised person for this purpose is any Director, the Secretary or any other person authorised by the Directors for the purpose of signing documents to which the Seal is applied.

123.3 The Seal shall be used only for sealing securities issued by the Company and documents creating or evidencing securities so issued. Any such securities or documents sealed with the Seal is not required to be signed unless the Board decides otherwise or the law otherwise requires.

123.4 The Board may decide who will sign an instrument to which a Seal is affixed (or in the case of a share certificate, on which the Seal may be printed or affixed by either mechanical or electronic means) either generally or in relation to a particular instrument or type of instrument and may also determine either generally or in a particular case that a signature may be dispensed with or affixed by mechanical means.

124. **Declaration of Dividends**

Subject to the Act and these Articles, the Company may by ordinary resolution declare dividends to be paid to members according to their respective rights and interests in the profits of the Company. However, no dividend shall exceed the amount recommended by the Board.

125. **Interim Dividends**

Subject to the Act, the Board may declare and pay such interim dividends (including any dividend at a fixed rate) as appears to the Board to be justified by the profits of the Company available for distribution. If the Board acts in good faith, it shall not incur any liability to the holders of shares for any loss that they may suffer by the lawful payment of any interim dividend on any other class of shares ranking with or after those shares.

126. **Calculation and Currency of Dividends**

Except as provided otherwise by these Articles or the rights attached to shares, all dividends:

(a) shall be declared and paid according to the amounts paid up (otherwise than in advance of calls) on the shares on which the dividend is paid;

(b) shall be apportioned and paid proportionately to the amounts paid up on the shares during any portion or portions of the period in respect of which the dividend is paid, but if any share is issued on terms that it shall rank for dividend as from a particular date, it shall rank for dividend accordingly; and

(c) may be declared or paid in any currency. The Board may decide the rate of exchange for any currency conversions that may be required and how any costs involved are to be met.

127. **Amounts Due on Shares can be Deducted from Dividends**

The Board may deduct from any dividend or other money payable to any person on or in respect of a share all such sums as may be due from them to the Company on account of calls or otherwise in relation to the shares of the Company. Sums so deducted can be used to pay amounts owing to the Company in respect of the shares.

128. **Dividends Not in Cash**

The Board may, by ordinary resolution of the Company direct, or in the case of an interim dividend may without the authority of an ordinary resolution direct, that payment of any dividend declared may be satisfied wholly or partly by the distribution of assets, and in particular of paid up shares or debentures of any other company, or in any one or more of such ways. Where any difficulty arises regarding such distribution, the Board may settle it as it thinks fit. In particular, the Board may:

(a) issue fractional certificates (or ignore fractions);

(b) fix the value for distribution of such assets or any part of them and determine that cash payments may be made to any members on the footing of the values so fixed, in order to adjust the rights of members; and

(c) vest any such assets in trustees on trust for the person entitled to the dividend.

129. **No Interest on Dividends**

Unless otherwise provided by the rights attached to the share, no dividend or other monies payable by the Company or in respect of a share shall bear interest as against the Company.

130. **Method of Payment**

130.1 The Company may pay any dividend, interest or other sum payable in respect of a share in cash or by direct debit, bank transfer, cheque, dividend warrant, or money order or by any other method, including by electronic means, as the Board may consider appropriate. For uncertificated shares, any payment may be made by means of the relevant system (subject always to the facilities and requirements of the relevant system) and such payment may be made by the Company or any person on its behalf by sending an instruction to the operator of the relevant system to credit the cash memorandum account of the holder or joint holders of such shares or, if permitted by the Company, of such person as the holder or joint holders may in writing direct.

130.2 The Company may send such payment by post or other delivery service (or by such means offered by the Company as the member or person entitled to it may agree in writing) to the registered address of the member or person entitled to it (or, if two or more persons are holders of the share or are jointly entitled to it because of the death or bankruptcy of the member or otherwise by operation of law, to the registered address of such of those persons as is first named in the Register) or to such person and such address as such member or person may direct in writing.

130.3 Every cheque, warrant, order or other form of payment is sent at the risk of the person entitled to the money represented by it, shall be made payable to the person or persons entitled, or to such other person as the person or persons entitled may direct in writing. Payment of the cheque, warrant, order or other form of payment (including transmission of funds through a bank transfer or other funds transfer system or by such other electronic means as permitted by these Articles or in accordance with the facilities and requirements of the relevant system

concerned) shall be good discharge to the Company. If any such cheque, warrant, order or other form of payment has or shall be alleged to have been lost, stolen or destroyed the Company shall not be responsible.

130.4 Any joint holder or other person jointly entitled to a share may give an effective receipt for any dividend or other monies payable in respect of such share.

130.5 The Board may, at its discretion, make provisions to enable any member as the Board shall determine to receive duly declared dividends in a currency or currencies other than sterling. For the purposes of the calculation of the amount receivable in respect of any dividend, the rate of exchange to be used to determine the foreign currency equivalent of any sum payable as a dividend shall be such rate or rates and the payment shall be on such terms and conditions as the Board may in its absolute discretion determine.

131. **Uncashed Dividends**

If cheques, warrants or orders for dividends or other sums payable in respect of a share sent by the Company to the person entitled to them are returned to the Company or left uncashed on two consecutive occasions or, following one occasion, reasonable enquiries have failed to establish any new address to be used for the purpose, the Company does not have to send any dividends or other monies payable in respect of that share due to that person until they notify the Company of an address to be used for the purpose. If any such cheque, warrant or order has or is alleged to have been lost, stolen or destroyed, the Directors may, on request of the person entitled to it, issue a replacement cheque, warrant or order.

132. **Unclaimed Dividends**

All dividends, interest or other sums payable and unclaimed for 12 months after having become payable may be invested or otherwise made use of by the Board for the benefit of the Company until claimed. The Company shall not be a trustee in respect of such unclaimed dividends and will not be liable to pay interest on it. All dividends that remain unclaimed for 12 years after they were first declared or became due for payment shall (if the Board so resolves) be forfeited and shall cease to remain owing by the Company.

133. **Scrip Dividends**

Subject to the Act, the Board may, by ordinary resolution of the Company and subject to such terms and conditions as the Board may determine, offer to any holders of Ordinary Shares and/or A Ordinary Shares (excluding any member holding shares as treasury shares) the right to elect to be (or direct that another person, including a nominee, be) issued with Ordinary Shares and/or A Ordinary Shares, credited as fully paid, instead of cash in respect of the whole (or some part, to be determined by the Board) of any dividend specified by the ordinary resolution. The following provisions shall apply:

(a) the said resolution may specify a particular dividend, or may specify all or any dividends declared within a specified period or periods but such period may not end later than the fifth anniversary of the date of the meeting at which the ordinary resolution is passed;

(b) the entitlement of each holder of Ordinary Shares and/or A Ordinary Shares to new Ordinary Shares and/or A Ordinary Shares shall be such that the relevant value of the entitlement shall be as nearly as possible equal to (but not greater than) the cash amount (disregarding any tax credit) of the dividend that such holder would have received by way of dividend. For this purpose **relevant value** shall be calculated by reference to the average of the middle market quotations for the Ordinary Shares

and/or A Ordinary Shares, certificated or uncertificated depositary instruments in respect of such shares, on Nasdaq (or any other publication of a recognised investment exchange showing quotations for the Ordinary Shares and/or A Ordinary Shares), for the day on which the Ordinary Shares and/or A Ordinary Shares are first quoted "ex" the relevant dividend and the four subsequent dealing days, or in such other manner as the Board may determine on such basis as it considers to be fair and reasonable. A certificate or report by the Company's auditors as to the amount of the relevant value in respect of any dividend shall be conclusive evidence of that amount;

(c) no fractions of a share shall be allotted. The Board may make such provisions as it thinks fit for any fractional entitlements including provisions where, in whole or in part, the benefit accrues to the Company and/or under which fractional entitlements are accrued and/or retained and in each case accumulated on behalf of any member and such accruals or retentions are applied to the allotment by way of bonus to or cash subscription on behalf of any member of fully paid Ordinary Shares and/or A Ordinary Shares and/or provisions where cash payments may be made to members in respect of their fractional entitlements;

(d) the Board shall, after determining the basis of allotment, notify the holders of Ordinary Shares and/or A Ordinary Shares in writing of the right of election offered to them, and specify the procedure to be followed and place at which, and the latest time by which, elections must be lodged in order to be effective. No such notice need to be given to holders of Ordinary Shares and/or A Ordinary Shares who have previously given election mandates in accordance with this Article 133(d) and whose mandates have not been revoked. The accidental omission to give notice of any right of election to, or the non-receipt (even if the Company becomes aware of such non-receipt) of any such notice by, any holder of Ordinary Shares and/or A Ordinary Shares entitled to the same shall neither invalidate any offer of an election nor give rise to any claim, suit or action;

(e) the Board shall not proceed with any election unless the company has sufficient reserves or funds that may be capitalised, and the Board has authority to allot sufficient shares, to give effect to it after the basis of the allotment is determined;

(f) the Board may exclude from any offer or make other arrangements in relation to any holders of Ordinary Shares and/or A Ordinary Shares where the Board considers that the making of the offer to them or in respect of such shares would or might involve the contravention of the laws of any territory or that for any other reason the offer should not be made to them or in respect of such shares;

(g) the Board may establish or vary a procedure for election mandates in respect of future rights of election and may determine that every duly effected election in respect of any Ordinary Shares and/or A Ordinary Shares shall be binding on every successor in title to the holder;

(h) the dividend (or that part of the dividend in respect of which a right of election has been offered) shall not be payable on Ordinary Shares and/or A Ordinary Shares in respect of which an election has been duly made ("**Elected Ordinary Shares"**) and instead additional Ordinary Shares and/or A Ordinary Shares shall be allotted to the holders of the Elected Ordinary Shares (or such person as they may direct) on the basis of allotment determined as stated above. For such purpose the Board may capitalise, out of any amount for the time being standing to the credit of any reserve or fund (including any share premium account or capital redemption reserve) or of any of the profits which could otherwise have been applied in paying dividends in cash as the Board may determine, a sum equal to the aggregate nominal amount of the additional Ordinary Shares and/or A Ordinary Shares to be allotted on such basis and apply it in paying up

in full the appropriate number of unissued Ordinary Shares and/or A Ordinary Shares for allotment and distribution to the holders of the Elected Ordinary Shares on such basis. The Board may do all acts and things considered necessary or expedient to give effect to any such capitalisation;

(i) the Board may decide how any costs relating to the new shares available in place of a cash dividend will be met, including to deduct an amount from the entitlement of a holder of Ordinary Shares and/or A Ordinary Shares under this Article 133;

(j) the additional Ordinary Shares and/or A Ordinary Shares so allotted shall rank pari passu in all respects with each other (save as otherwise provided for in these Articles) and with the fully paid Ordinary Shares and/or A Ordinary Shares in issue on the record date for the dividend in respect of which the right of election has been offered, except that they will not rank for any dividend or other distribution or other entitlement which has been declared, paid or made by reference to such record date; and

(k) the Board may terminate, suspend, or amend any offer of the right to elect to be (or direct that another person, including a nominee, be) issued with Ordinary Shares and/or A Ordinary Shares in lieu of any cash dividend at any time and generally may implement any scrip dividend scheme on such terms and conditions as the Board may determine and take such other action as the Board may deem necessary or desirable in respect of any such scheme.

134. **Capitalisation of Reserves**

134.1 The Board may, with the authority of an ordinary resolution of the Company:

(a) subject as provided in this Article 134, resolve to capitalise any undivided profits of the Company 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 of the Company which is available for distribution or standing to the credit of the share premium account or capital redemption reserve or other undistributable reserve;

(b) appropriate the sum resolved to be capitalised to the members in proportion to the nominal amounts of the shares (whether or not fully paid) held by them respectively which would entitle them to participate in a distribution of that sum if the shares were fully paid and the sum were then distributable and were distributed by way of dividend and apply such sum on their behalf either in or towards paying up the amounts, if any, for the time being unpaid on any shares held by them respectively, or in paying up in full unissued shares or debentures of the Company of a nominal amount equal to that sum, and allot the shares or debentures credited as fully paid to those members or as they may direct, in those proportions, or partly in one way and partly in the other, provided that:

(i) the share premium account, the capital redemption reserve, any other undistributable reserve and any profits which are not available for distribution may, for the purposes of this Article 134, only be applied in paying up in full shares to be allotted to members credited as fully paid;

(ii) the Company will also be entitled to participate in the relevant distribution in relation to any shares of the relevant class held by it as treasury shares and the proportionate entitlement of the relevant class of members to the distribution will be calculated accordingly; and

(iii) in a case where any sum is applied in paying amounts for the time being unpaid on any shares of the Company or in paying up in full debentures of the Company, the amount of the net assets of the Company at that time is not less than the aggregate of the called up share capital of the Company and its undistributable reserves as shown in the latest audited accounts of the Company or such other accounts as may be relevant and would not be reduced below that aggregate by the payment of it;

(c) resolve that any shares so allotted to any member in respect of a holding by them of any partly paid shares shall, so long as such shares remain partly paid, rank for dividends only to the extent that such partly paid shares rank for dividends;

(d) make such provision by the issue of fractional certificates (or by ignoring fractions or by accruing the benefit of it to the Company rather than to the members concerned) or by payment in cash or otherwise as it thinks fit in the case of shares or debentures becoming distributable in fractions;

(e) authorise any person to enter on behalf of such members concerned into an agreement with the Company providing for either:

(i) the allotment to them respectively, credited as fully paid up, of any shares or debentures to which they may be entitled on such capitalisation; or

(ii) the payment up by the Company on behalf of such members by the application of their respective proportions of the reserves or profits resolved to be capitalised, of the amounts or any part of the amounts remaining unpaid on their existing shares,

(any agreement made under such authority being effective and binding on all such members); and

(f) generally do all acts and things required to give effect to such resolution.

135. **Record Dates**

135.1 Notwithstanding any other provision of these Articles but without prejudice to the rights attached to any shares and subject always to the Act, the Company or the Board may by resolution specify any date (**record date**) as the date at the close of business (or such other time as the Board may determine) on which persons registered as the holders of shares or other securities shall be entitled to receipt of any dividend, distribution, interest, allotment, issue, notice, information, document or circular. Such record date may be before, on or after the date on which the dividend, distribution, interest, allotment, issue, notice, information, document or circular is declared, made, paid, given, or served.

135.2 In the absence of a record date being fixed, entitlement to any dividend, distribution, interest, allotment, issue, notice, information, document or circular shall be determined by reference to the date on which the dividend is declared, the distribution allotment or issue is made or the notice, information, document or circular made, given or served.

136. **Inspection of Records**

No member (other than a Director) shall have any right to inspect any accounting record or other document of the Company unless they are authorised to do so by law, by order of a court of competent jurisdiction, by the Board or by ordinary resolution of the Company.

137. **Accounts to be Sent to Members**

137.1 In respect of each financial year, a copy of the Company's annual accounts, the strategic report, the Directors' report, the Directors' remuneration report, the auditor's report on those accounts and on the auditable part of the Directors' remuneration report shall be sent or supplied to:

(a) every member (whether or not entitled to receive notices of general meetings);

(b) every holder of debentures (whether or not entitled to receive notice of general meetings); and

(c) every other person who is entitled to receive notice of general meetings;

not less than 21 clear days before the date of the meeting at which copies of those documents are to be laid in accordance with the Act.

137.2 This Article 137 does not require copies of the documents to which it applies to be sent or supplied to:

(a) a member or holder of debentures of whose address the Company is unaware; or

(b) more than one of the joint holders of shares or debentures.

137.3 The Board may determine that persons entitled to receive a copy of the Company's annual accounts, the strategic report, the Directors' report, the Directors' remuneration report, the auditor's report on those accounts and on the auditable part of the Directors' remuneration report are those persons entered on the Register at the close of business on a day determined by the Board, provided that the day determined by the Board may not be more than 21 days before the day that the relevant copies are being sent.

137.4 Where permitted by the Act, a strategic report with supplementary material in the form and containing the information prescribed by the Act may be sent or supplied to a person so electing in place of the documents required to be sent or supplied by Article 137.1.

138. **Service of Notices**

138.1 The Company can send, deliver or serve any notice or other document, including a share certificate, to or on a member:

(a) personally;

(b) by sending it through the postal system addressed to the member at their registered address or by leaving it at that address addressed to the member;

(c) through a relevant system, where the notice or document relates to uncertificated shares;

(d) where appropriate, by sending or supplying it in electronic form to an address notified by the member to the Company for that purpose;

(e) where appropriate, by making it available on a website and notifying the member of its availability in accordance with this Article 138; or

(f) by any other means authorised in writing by the member.

138.2 In the case of joint holders of a share:

(a) service, sending or supply of any notice, document or other information on or to one of the joint holders shall for all purposes be deemed a sufficient service on, sending or supplying to all the joint holders; and

(b) anything to be agreed or specified in relation to any notice, document or other information to be served on, sent or supplied to them may be agreed or specified by any one of the joint holders and the agreement or specification of the first named in the Register shall be accepted to the exclusion of that of the other joint holders.

138.3 Where a member (or, in the case of a joint holders, the person first named in the Register) has a registered address outside the United Kingdom but has: (i) notified the Company of an address within the United Kingdom at which notices, documents or other information may be given to them; or (ii) has given to the Company an address for the purposes of communications by electronic means at which notices, documents or other information may be served, sent or supplied to them, they shall be entitled to have notices served, sent or supplied to them at such address or, where applicable, the Company may make them available on a website and notify the holder of that address. Otherwise no such member shall be entitled to receive any notice, document or other information from the Company.

138.4 If on three consecutive occasions any notice, document or other information has been sent to any member at their registered address or their address for the service of notices (by electronic means or otherwise) but has been returned undelivered, such member shall not be entitled to receive notices, documents or other information from the Company until they have communicated with the Company and supplied in writing a new registered address or address within the United Kingdom for the service of notices or has informed the Company of an address for the service of notices and the sending or supply of documents and other information in electronic form. For these purposes, any notice, document or other information served, sent or supplied by post shall be treated as returned undelivered if the notice, document or other information is served, sent or supplied back to the Company (or its agents) and a notice, document or other information served, sent or supplied in electronic form shall be treated as returned undelivered if the Company (or its agents) receives notification that the notice, document or other information was not delivered to the address to which it was served, sent or supplied.

138.5 The Company may at any time and in its sole discretion choose to serve, send or supply notices, documents or other information in hard copy form alone to some or all of the members.

139. **Hard copy form**

Any document, information or notice is validly sent or supplied by the Company in hard copy form if it is handed to the intended recipient or sent or supplied by hand or through the post in a prepaid envelope:

(a) to an address specified for the purpose by the intended recipient (including pursuant to Article 138.3);

(b) if the intended recipient is a company, to its registered office;

(c) to the address shown in the Company's Register;

(d) to any address to which any provision of the Companies Acts authorises it to be sent or supplied; or

(e) if the Company is unable to obtain an address falling within paragraphs (a) to (d), to the last address known to the Company of the intended recipient.

140. **Electronic form**

Any document, information or notice is validly sent or supplied by the Company in electronic form:

(a) to a person if that person has agreed (generally or specifically) that the document, information or notice may be sent or supplied in that form and has not revoked that agreement; or

(b) to a company that is deemed to have so agreed by the Companies Acts.

141. **Electronic means**

Any document, information or notice is validly sent or supplied by the Company by electronic means if it is sent or supplied:

(a) to an address specified for the purpose by the intended recipient (generally or specifically); or

(b) where the intended recipient is a company, to an address deemed by the Companies Acts to have been so specified.

142. **Website**

Any document, information or notice is validly sent or supplied by the Company to a person by being made available on a website if:

(a) the person has agreed (generally or specifically) that the document, information or notice may be sent or supplied to him or her in that manner, or he or she is taken to have so agreed under Schedule 5 of the Act, and in either case he or she has not revoked that agreement;

(b) the Company has notified the intended recipient of:

(i) the presence of the document, information or notice on the website;

(ii) the address of the website;

(iii) the place on the website where it may be accessed;

(iv) how to access the document, information or notice; and

(v) any other information prescribed by the Companies Acts or any other provisions of law including, when the document, information or notice is a notice of meeting, that fact, the place, date and time of the meeting and whether the meeting is an annual general meeting; and

(c) the document, information or notice is available on the website throughout the period specified by any applicable provision of the Companies Acts or, if no such period is specified, the period of 28 days starting on the date on which the notification referred to in paragraph (b) above is sent to the relevant person.

143. **Sending or supplying any document, information or notice by any other means**

Any document, information or notice that is sent or supplied otherwise than in hard copy form or electronic form or by means of a website is validly sent or supplied if it is sent or supplied in a form or manner that has been agreed by the intended recipient.

144. **Presence at meeting evidence in itself of receipt of notice**

A member present either in person or by proxy, or in the case of a corporate member by a duly authorised representative, at any meeting of the Company or of the holders of any class of shares shall be deemed to have received notice of the meeting and, where required, of the purposes for which it was called.

145. **Notice on Person Entitled By Transmission**

The Company may give notice to the person entitled to a share because of the death or bankruptcy of a member or otherwise by operation of law, by sending or delivering it in any manner authorised by these Articles for the giving of notice to a member, addressed to that person by name, or by the title of representative of the deceased or trustee of the bankrupt or representative by operation of law or by any like description, at the address (if any) within the United Kingdom supplied for the purpose by the person claimed to be so entitled or to which notices may be sent in electronic form. Until such an address has been so supplied, a notice may be given in any manner in which it might have been given if the death or bankruptcy or operation of law had not occurred.

146. **Record Date for Service**

Any notice, document or other information may be served, sent or supplied by the Company by reference to the register as it stands at any time not more than 15 days before the date of service, sending or supplying. No change in the register after that time shall invalidate that service, sending or supply. Where any notice, document or other information is served on, sent or supplied to any person in respect of a share in accordance with these Articles, no person deriving any title or interest in that share shall be entitled to any further service, sending or supplying of that notice, document or other information.

147. **Evidence of Service**

147.1 Any notice, document or other information, addressed to a member at their registered address or address for service in the United Kingdom shall, if served, sent or supplied by first class post, be deemed to have been served or delivered on the day after the day when it was put in the post (or, where second class post is employed, on the second day after the day when it was put in the post). Proof that an envelope containing the notice, document or other information was properly addressed and put into the post as a prepaid letter shall be conclusive evidence that the notice was given.

147.2 Any notice, document or other information not served, sent or supplied by post but delivered or left at a registered address or address for service in the United Kingdom (other than an address for the purposes of communications by electronic means) shall be deemed to have been served or delivered on the day on which it was so delivered or left.

147.3 Any notice, document or other information, if served, sent or supplied by electronic means shall be deemed to have been received on the day on which the electronic communication was sent by or on behalf of the Company notwithstanding that the Company subsequently sends a hard copy of such notice, document or other information by post. Any notice, document or other information made available on a website shall be deemed to have been received on the day on

which the notice, document or other information was first made available on the website or, if later, when a notice of availability is received or deemed to have been received pursuant to this Article. Proof that the notice, document or other information was properly addressed shall be conclusive evidence that the notice by electronic means was given.

147.4 Any notice, document or other information served, sent or supplied by the Company by means of a relevant system shall be deemed to have been received when the Company or any sponsoring system-participant acting on its behalf sends the issuer instruction relating to the notice, document or other information.

147.5 Any notice, document or other information served, sent or supplied by the Company by any other means authorised in writing by the member concerned shall be deemed to have been received when the Company has carried out the action it has been authorised to take for that purpose.

148. **Notice When Post not Available**

If at any time by reason of the suspension, interruption or curtailment of postal services within the United Kingdom the Company is unable effectively to convene a general meeting by notices sent through the post, the Company need only give notice of a general meeting to those members with whom the Company can communicate by electronic means and who have provided the Company with an address for this purpose. The Company shall also advertise the notice in at least one national newspaper published in the United Kingdom and make it available on its website from the date of such advertisement until the conclusion of the meeting or any adjournment of it. In any such case the Company shall send confirmatory copies of the notice by post to those members to whom notice cannot be given by electronic means if, at least seven days prior to the meeting, the posting of notices to addresses throughout the United Kingdom again becomes practicable.

149. **Winding up**

If the Company is wound up and subject to the rights and restrictions attached to any share or classes of shares, the liquidator may, with the sanction of a special resolution and any other sanction required by law, divide among the members in specie the whole or any part of the assets of the Company and may, for that purpose, value any assets and determine how the division shall be carried out as between the members or different classes of members. The liquidator may, with the like sanction(s), vest the whole or any part of the assets in trustees upon such trusts for the benefit of the members as he, she or it may with the like sanction determine. Where the liquidator divides or transfers any assets in pursuance of the powers in this Article 149, no member shall be compelled to accept any assets upon which there is a liability.

150. **Indemnity and Insurance**

150.1 In this Article:

(a) companies are **associated** if one is a subsidiary of the other or both are subsidiaries of the same body corporate;

(b) a **relevant officer** means any Director or other officer or former director or other officer of the Company or an associated company (including any company which is a trustee of an occupational pension scheme (as defined by section 235(6) of the Act), but excluding in each case any person engaged by the Company (or associated company) as auditor (whether or not they are also a director or other officer), to the extent they act in their capacity as auditor); and

(c) **relevant loss** means any loss or liability which has been or may be incurred by a relevant officer in connection with that relevant officer's duties or powers in relation to the company, any associated company or any pension fund or employees' share scheme of the company or associated company.

150.2 Subject to Article 150.4, but without prejudice to any indemnity to which a relevant officer is otherwise entitled, so far as may be permitted by the Act:

(a) each relevant officer shall be indemnified out of the Company's assets against all relevant loss and in relation to the Company's (or any associated company's) activities as trustee of an occupational pension scheme (as defined in section 235(6) of the Act), including any liability incurred by them in defending any civil or criminal proceedings, in which judgment is given in their favour or in which they are acquitted or the proceedings are otherwise disposed of without any finding or admission of any material breach of duty on their part or in connection with any application in which the court grants them, in their capacity as a relevant officer, relief from liability for negligence, default, breach of duty or breach of trust in relation to the Company's (or any associated company's) affairs; and

(b) the Company may provide any relevant officer with funds to meet expenditure incurred or to be incurred by them in connection with any proceedings or application referred to in Article 150.2(a) and otherwise may take any action to enable any such relevant officer to avoid incurring such expenditure.

150.3 This Article 149 does not authorise any indemnity which would be prohibited or rendered void by any provision of the Companies Acts or by any other provision of law.

150.4 The Directors may decide to purchase and maintain insurance, at the expense of the Company, for the benefit of any relevant officer in respect of any relevant loss.

151. **Exclusive Jurisdiction**

151.1 Save in respect of any cause of action arising under the Securities Act or the Exchange Act, unless the Company by ordinary resolution consents to the selection of an alternative forum, the courts of England and Wales shall be the exclusive forum for the resolution of:

(a) any derivative action or proceeding brought on behalf of the Company;

(b) any action or proceeding asserting a claim of breach of fiduciary duty owed by any director, officer or other employee to the Company;

(c) any action or proceeding asserting a claim arising out of any provision of the Companies Acts or these Articles; or

(d) any action or proceeding asserting a claim or otherwise related to the affairs of the Company.

151.2 Unless the Company by ordinary resolution consents to the selection of an alternative forum in the United States, the United States District Court for the Southern District of New York shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act or the Exchange Act.

151.3 Any person or entity purchasing or otherwise acquiring any interest in the Company's shares shall be deemed to have notice of and consented to the provisions of this Article 151.

ACHILLES THERAPEUTICS PLC

AND

THE BANK OF NEW YORK MELLON

As Depositary

AND

OWNERS AND HOLDERS OF AMERICAN DEPOSITARY SHARES

Deposit Agreement

March 30, 2021

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DEPOSIT AGREEMENT

DEPOSIT AGREEMENT dated as of March 30, 2021 among ACHILLES THERAPEUTICS PLC, a company incorporated under the laws of England and Wales (herein called the Company), THE BANK OF NEW YORK MELLON, a New York banking corporation (herein called the Depositary), and all Owners and Holders (each as hereinafter defined) from time to time of American Depositary Shares issued hereunder.

W I T N E S S E T H:

WHEREAS, the Company desires to provide, as set forth in this Deposit Agreement, for the deposit of Shares (as hereinafter defined) of the Company from time to time with the Depositary or with the Custodian (as hereinafter defined) under this Deposit Agreement, for the creation of American Depositary Shares representing the Shares so deposited and for the execution and delivery of American Depositary Receipts evidencing the American Depositary Shares; and

WHEREAS, the American Depositary Receipts are to be substantially in the form of Exhibit A annexed to this Deposit Agreement, with appropriate insertions, modifications and omissions, as set forth in this Deposit Agreement;

NOW, THEREFORE, in consideration of the premises, it is agreed by and between the parties hereto as follows:

ARTICLE 1. DEFINITIONS

The following definitions shall for all purposes, unless otherwise clearly indicated, apply to the respective terms used in this Deposit Agreement:

SECTION 1.1. American Depositary Shares.

The term "American Depositary Shares" shall mean the securities created under this Deposit Agreement representing rights with respect to the Deposited Securities. American Depositary Shares may be certificated securities evidenced by Receipts or uncertificated securities. The form of Receipt annexed as Exhibit A to this Deposit Agreement shall be the prospectus required under the Securities Act of 1933 for sales of both certificated and uncertificated American Depositary Shares. Except for those provisions of this Deposit Agreement that refer specifically to Receipts, all the provisions of this Deposit Agreement shall apply to both certificated and uncertificated American Depositary Shares.

Each American Depositary Share shall represent the number of Shares specified in Exhibit A to this Deposit Agreement, except that, if there is a distribution upon Deposited Securities covered by Section 4.3, a change in Deposited Securities covered by Section 4.8 with respect to which additional American Depositary Shares are not delivered

or a sale of Deposited Securities under Section 3.2 or 4.8, each American Depositary Share shall thereafter represent the amount of Shares or other Deposited Securities that are then on deposit per American Depositary Share after giving effect to that distribution, change or sale.

SECTION 1.2. Commission.

The term "Commission" shall mean the Securities and Exchange Commission of the United States or any successor governmental agency in the United States.

SECTION 1.3. Company.

The term "Company" shall mean Achilles Therapeutics plc, a company incorporated under the laws of England and Wales, and its successors.

SECTION 1.4. Custodian.

The term "Custodian" shall mean The Bank of New York Mellon, acting through an office located in the United Kingdom, as custodian for the Depositary for the purposes of this Deposit Agreement, and any other firm or corporation the Depositary appoints under Section 5.5 as a substitute or additional custodian under this Deposit Agreement, and shall also mean all of them collectively.

SECTION 1.5. Deliver; Surrender.

(a) The term "deliver", or its noun form, when used with respect to Shares or other Deposited Securities, shall mean, as applicable, (i) book-entry transfer of those Shares or other Deposited Securities to an account maintained by an institution authorized under applicable law to effect transfers of such securities designated by the person entitled to that delivery or (ii) physical transfer of certificates evidencing those Shares or other Deposited Securities registered in the name of, or duly endorsed or accompanied by proper instruments of transfer to, the person entitled to that delivery.

(b) The term "deliver", or its noun form, when used with respect to American Depositary Shares, shall mean (i) registration of those American Depositary Shares in the name of DTC or its nominee and book-entry transfer of those American Depositary Shares to an account at DTC designated by the person entitled to that delivery, (ii) registration of those American Depositary Shares not evidenced by a Receipt on the books of the Depositary in the name requested by the person entitled to that delivery and mailing to that person of a statement confirming that registration or (iii) if requested by the person entitled to that delivery, execution and delivery at the Depositary's Office to the person entitled to that delivery of one or more Receipts evidencing those American Depositary Shares registered in the name requested by that person.

(c) The term "surrender", when used with respect to American Depositary Shares, shall mean (i) one or more book-entry transfers of American Depositary Shares to the DTC account of the Depositary, (ii) delivery to the Depositary at its Office of an instruction to surrender American Depositary Shares not evidenced by a Receipt or (iii) surrender to the Depositary at its Office of one or more Receipts evidencing American Depositary Shares.

SECTION 1.6. Deposit Agreement.

The term "Deposit Agreement" shall mean this Deposit Agreement, as it may be amended from time to time in accordance with the provisions of this Deposit Agreement.

SECTION 1.7. Depositary; Depositary's Office.

The term "Depositary" shall mean The Bank of New York Mellon, a New York banking corporation, and any successor as depositary under this Deposit Agreement. The term "Office," when used with respect to the Depositary, shall mean the office at which its depositary receipts business is administered, which, at the date of this Deposit Agreement, is located at 240 Greenwich Street, New York, New York 10286.

SECTION 1.8. Deposited Securities.

The term "Deposited Securities" as of any time shall mean Shares at such time deposited or deemed to be deposited under this Deposit Agreement, including without limitation, Shares that have not been successfully delivered upon surrender of American Depositary Shares, and any and all other securities, property and cash received by the Depositary or the Custodian in respect of Deposited Securities and at that time held under this Deposit Agreement.

SECTION 1.9. Disseminate.

The term "Disseminate," when referring to a notice or other information to be sent by the Depositary to Owners, shall mean (i) sending that information to Owners in paper form by mail or another means or (ii) with the consent of Owners, another procedure that has the effect of making the information available to Owners, which may include (A) sending the information by electronic mail or electronic messaging or (B) sending in paper form or by electronic mail or messaging a statement that the information is available and may be accessed by the Owner on an Internet website and that it will be sent in paper form upon request by the Owner, when that information is so available and is sent in paper form as promptly as practicable upon request.

SECTION 1.10. Dollars.

The term "Dollars" shall mean United States dollars.

SECTION 1.11. DTC.

The term "DTC" shall mean The Depository Trust Company or its successor.

SECTION 1.12. Foreign Registrar.

The term "Foreign Registrar" shall mean the entity that carries out the duties of registrar for the Shares and any other agent of the Company for the transfer and registration of Shares, including, without limitation, any securities depository for the Shares.

SECTION 1.13. Holder.

The term "Holder" shall mean any person holding a Receipt or a security entitlement or other interest in American Depositary Shares, whether for its own account or for the account of another person, but that is not the Owner of that Receipt or those American Depositary Shares.

SECTION 1.14. Owner.

The term "Owner" shall mean the person in whose name American Depositary Shares are registered on the books of the Depositary maintained for that purpose.

SECTION 1.15. Receipts.

The term "Receipts" shall mean the American Depositary Receipts issued under this Deposit Agreement evidencing certificated American Depositary Shares, as the same may be amended from time to time in accordance with the provisions of this Deposit Agreement.

SECTION 1.16. Registrar.

The term "Registrar" shall mean any corporation or other entity that is appointed by the Depositary to register American Depositary Shares and transfers of American Depositary Shares as provided in this Deposit Agreement.

SECTION 1.17. Replacement.

The term "Replacement" shall have the meaning assigned to it in Section 4.8.

SECTION 1.18. Restricted Securities.

The term "Restricted Securities" shall mean Shares that (i) are "restricted securities," as defined in Rule 144 under the Securities Act of 1933, except for Shares that could be resold in reliance on Rule 144 without any conditions, (ii) are beneficially owned by an officer, director (or person performing similar functions) or other affiliate of the Company, (iii) otherwise would require registration under the Securities Act of 1933 in connection with the public offer and sale thereof in the United States or (iv) are subject to other restrictions on sale or deposit under the laws of England and Wales, a shareholder agreement or the articles of association or similar document of the Company.

SECTION 1.19. Securities Act of 1933.

The term "Securities Act of 1933" shall mean the United States Securities Act of 1933, as from time to time amended.

SECTION 1.20. Shares.

The term "Shares" shall mean ordinary shares of the Company that are validly issued and outstanding, fully paid and nonassessable and that were not issued in violation of any pre-emptive or similar rights of the holders of outstanding securities of the Company; provided, however, that, if there shall occur any change in nominal or par value, a split-up or consolidation or any other reclassification or, upon the occurrence of an event described in Section 4.8, an exchange or conversion in respect of the Shares of the Company, the term "Shares" shall thereafter also mean the successor securities resulting from such change in nominal value, split-up or consolidation or such other reclassification or such exchange or conversion.

SECTION 1.21. SWIFT.

The term "SWIFT" shall mean the financial messaging network operated by the Society for Worldwide Interbank Financial Telecommunication, or its successor.

SECTION 1.22. Termination Option Event.

The term "Termination Option Event" shall mean any of the following events or conditions:

(i) the Company institutes proceedings to be adjudicated as bankrupt or insolvent, consents to the institution of bankruptcy or insolvency proceedings against it, files a petition or answer or consent seeking reorganization or relief under any applicable law in respect of bankruptcy or insolvency, consents to the filing of any petition of that kind or to the appointment of a receiver, liquidator, assignee, trustee, custodian or sequestrator (or other similar official) of it or any substantial part of its property or makes

an assignment for the benefit of creditors, or if information becomes publicly available indicating that unsecured claims against the Company are not expected to be paid;

(ii) the Shares are delisted, or the Company announces its intention to delist the Shares, from a stock exchange outside the United States, and the Company has not applied to list the Shares on any other stock exchange outside the United States;

(iii) the American Depositary Shares are delisted from a stock exchange in the United States on which the American Depositary Shares were listed and, 30 days after that delisting, the American Depositary Shares have not been listed on another stock exchange in the United States, nor is there a symbol available for over-the-counter trading of the American Depositary Shares in the United States;

(iv) the Depositary has received notice of facts that indicate, or otherwise has reason to believe, that the American Depositary Shares have become, or with the passage of time will become, ineligible for registration on Form F-6 under the Securities Act of 1933; or

(v) an event or condition that is defined as a Termination Option Event in Section 4.1, 4.2 or 4.8.

ARTICLE 2. FORM OF RECEIPTS, DEPOSIT OF SHARES, DELIVERY, TRANSFER AND SURRENDER OF AMERICAN DEPOSITARY SHARES

SECTION 2.1. Form of Receipts; Registration and Transferability of American Depositary Shares.

Definitive Receipts shall be substantially in the form set forth in Exhibit A to this Deposit Agreement, with appropriate insertions, modifications and omissions, as permitted under this Deposit Agreement. No Receipt shall be entitled to any benefits under this Deposit Agreement or be valid or obligatory for any purpose, unless that Receipt has been (i) executed by the Depositary by the manual signature of a duly authorized officer of the Depositary or (ii) executed by the facsimile signature of a duly authorized officer of the Depositary and countersigned by the manual signature of a duly authorized signatory of the Depositary or the Registrar or a co-registrar. The Depositary shall maintain books on which (x) each Receipt so executed and delivered as provided in this Deposit Agreement and each transfer of that Receipt and (y) all American Depositary Shares delivered as provided in this Deposit Agreement and all registrations of transfer of American Depositary Shares, shall be registered. A Receipt bearing the facsimile signature of a person that was at any time a proper officer of the Depositary shall, subject to the other provisions of this paragraph, bind the Depositary, even if that person was not a proper officer of the Depositary on the date of issuance of that Receipt.

The Receipts and statements confirming registration of American Depositary Shares may have incorporated in or attached to them such legends or recitals or

modifications not inconsistent with the provisions of this Deposit Agreement as may be required by the Depositary or required to comply with any applicable law or regulations thereunder or with the rules and regulations of any securities exchange upon which American Depositary Shares may be listed or to conform with any usage with respect thereto, or to indicate any special limitations or restrictions to which any particular Receipts and American Depositary Shares are subject by reason of the date of issuance of the underlying Deposited Securities or otherwise.

American Depositary Shares evidenced by a Receipt, when the Receipt is properly endorsed or accompanied by proper instruments of transfer, shall be transferable as certificated registered securities under the laws of the State of New York. American Depositary Shares not evidenced by Receipts shall be transferable as uncertificated registered securities under the laws of the State of New York. The Depositary and the Company, notwithstanding any notice to the contrary, may treat the Owner of American Depositary Shares as the absolute owner thereof for the purpose of determining the person entitled to distribution of dividends or other distributions or to any notice provided for in this Deposit Agreement and for all other purposes, and neither the Depositary nor the Company shall have any obligation or be subject to any liability under this Deposit Agreement to any Holder of American Depositary Shares (but only to the Owner of those American Depositary Shares).

SECTION 2.2. Deposit of Shares.

Subject to the terms and conditions of this Deposit Agreement, Shares or evidence of rights to receive Shares may be deposited under this Deposit Agreement by delivery thereof to any Custodian, accompanied by any appropriate instruments or instructions for transfer, or endorsement, in form satisfactory to the Custodian.

As conditions of accepting Shares for transfer or deposit, the Depositary may require (i) any certification required by the Depositary or the Custodian in accordance with the provisions of this Deposit Agreement, (ii) a written order directing the Depositary to deliver to, or upon the written order of, the person or persons stated in that order American Depositary Shares representing those deposited Shares, (iii) evidence satisfactory to the Depositary that those Shares have been re-registered in the books of the Company or the Foreign Registrar in the name of the Depositary, a Custodian or a nominee of the Depositary or a Custodian, (iv) evidence satisfactory to the Depositary that any necessary approval for the transfer or deposit has been granted by any governmental body in each applicable jurisdiction and (v) an agreement or assignment, or other instrument satisfactory to the Depositary, that provides for the prompt transfer to the Custodian of any dividend, or right to subscribe for additional Shares or to receive other property, that any person in whose name those Shares are or have been recorded may thereafter receive upon or in respect of those Shares, or, in lieu thereof, such agreement of indemnity or other agreement as shall be satisfactory to the Depositary.

At the request and risk and expense of a person proposing to deposit Shares, and for the account of that person, the Depositary may receive certificates for Shares to be deposited, together with the other instruments specified in this Section, for the purpose of forwarding those Share certificates to the Custodian for deposit under this Deposit Agreement.

The Depositary shall instruct each Custodian that, upon each delivery to a Custodian of a certificate or certificates for Shares to be deposited under this Deposit Agreement, together with the other documents specified in this Section, that Custodian shall, as soon as transfer and recordation can be accomplished, present that certificate or those certificates to the Company or the Foreign Registrar, if applicable, for transfer and recordation of the Shares being deposited in the name of the Depositary or its nominee or that Custodian or its nominee.

Deposited Securities shall be held by the Depositary or by a Custodian for the account and to the order of the Depositary or at such other place or places as the Depositary shall determine.

SECTION 2.3. Delivery of American Depositary Shares.

The Depositary shall instruct each Custodian that, upon receipt by that Custodian of any deposit pursuant to Section 2.2, together with the other documents or evidence required under that Section, that Custodian shall notify the Depositary of that deposit and the person or persons to whom or upon whose written order American Depositary Shares are deliverable in respect thereof. Upon receiving a notice of a deposit from a Custodian, or upon the receipt of Shares or evidence of the right to receive Shares by the Depositary, the Depositary, subject to the terms and conditions of this Deposit Agreement, shall deliver, to or upon the order of the person or persons entitled thereto, the number of American Depositary Shares issuable in respect of that deposit, but only upon payment to the Depositary of the fees and expenses of the Depositary for the delivery of those American Depositary Shares as provided in Section 5.9, and of all taxes and governmental charges and fees payable in connection with that deposit and the transfer of the deposited Shares. However, the Depositary shall deliver only whole numbers of American Depositary Shares.

SECTION 2.4. Registration of Transfer of American Depositary Shares; Combination and Split-up of Receipts; Interchange of Certificated and Uncertificated American Depositary Shares.

The Depositary, subject to the terms and conditions of this Deposit Agreement, shall register a transfer of American Depositary Shares on its transfer books upon (i) in the case of certificated American Depositary Shares, surrender of the Receipt evidencing those American Depositary Shares, by the Owner or by a duly authorized attorney, properly endorsed or accompanied by proper instruments of transfer or (ii) in the case of uncertificated American Depositary Shares, receipt from the Owner of a proper

instruction (including, for the avoidance of doubt, instructions through DRS and Profile as provided in Section 2.9), and, in either case, duly stamped as may be required by the laws of the State of New York and of the United States of America. Upon registration of a transfer, the Depositary shall deliver the transferred American Depositary Shares to or upon the order of the person entitled thereto.

The Depositary, subject to the terms and conditions of this Deposit Agreement, shall upon surrender of a Receipt or Receipts for the purpose of effecting a split-up or combination of such Receipt or Receipts, execute and deliver a new Receipt or Receipts for any authorized number of American Depositary Shares requested, evidencing the same aggregate number of American Depositary Shares as the Receipt or Receipts surrendered.

The Depositary, upon surrender of certificated American Depositary Shares for the purpose of exchanging for uncertificated American Depositary Shares, shall cancel the Receipt evidencing those certificated American Depositary Shares and send the Owner a statement confirming that the Owner is the owner of the same number of uncertificated American Depositary Shares. The Depositary, upon receipt of a proper instruction (including, for the avoidance of doubt, instructions through DRS and Profile as provided in Section 2.9) from the Owner of uncertificated American Depositary Shares for the purpose of exchanging for certificated American Depositary Shares, shall cancel those uncertificated American Depositary Shares and register and deliver to the Owner a Receipt evidencing the same number of certificated American Depositary Shares.

The Depositary may appoint one or more co-transfer agents for the purpose of effecting registration of transfers of American Depositary Shares and combinations and split-ups of Receipts at designated transfer offices on behalf of the Depositary, and the Depositary shall notify the Company if it makes an appointment of that kind. In carrying out its functions, a co-transfer agent may require evidence of authority and compliance with applicable laws and other requirements by Owners or persons entitled to American Depositary Shares and will be entitled to protection and indemnity to the same extent as the Depositary. The Depositary shall require each co-transfer agent that it appoints under this Section 2.4 to give written notice to the Depositary accepting its appointment and agreeing to abide by the applicable terms and conditions of this Deposit Agreement.

SECTION 2.5. Surrender of American Depositary Shares and Withdrawal of Deposited Securities.

Upon surrender of American Depositary Shares for the purpose of withdrawal of the Deposited Securities represented thereby and payment of the fee of the Depositary for the surrender of American Depositary Shares as provided in Section 5.9 and payment of all taxes and governmental charges payable in connection with that surrender and withdrawal of the Deposited Securities, and subject to the terms and conditions of this Deposit Agreement, the Owner of those American Depositary Shares shall be entitled to delivery (to the extent delivery can then be lawfully and practicably made), to or as

instructed by that Owner, of the amount of Deposited Securities at the time represented by those American Depositary Shares, but not any money or other property as to which a record date for distribution to Owners has passed (since money or other property of that kind will be delivered or paid on the scheduled payment date to the Owner as of that record date), and except that the Depositary shall not be required to accept surrender of American Depositary Shares for the purpose of withdrawal to the extent it would require delivery of a fraction of a Deposited Security. That delivery shall be made, as provided in this Section, without unreasonable delay.

As a condition of accepting a surrender of American Depositary Shares for the purpose of withdrawal of Deposited Securities, the Depositary may require (i) that each surrendered Receipt be properly endorsed in blank or accompanied by proper instruments of transfer in blank and (ii) that the surrendering Owner execute and deliver to the Depositary a written order directing the Depositary to cause the Deposited Securities being withdrawn to be delivered to or upon the written order of a person or persons designated in that order.

Thereupon, the Depositary shall direct the Custodian to deliver, subject to Sections 2.6, 3.1 and 3.2, the other terms and conditions of this Deposit Agreement and local market rules and practices, to the surrendering Owner or to or upon the written order of the person or persons designated in the order delivered to the Depositary as above provided, the amount of Deposited Securities represented by the surrendered American Depositary Shares, and the Depositary may charge the surrendering Owner a fee and its expenses for giving that direction by cable (including SWIFT) or facsimile transmission.

If Deposited Securities are delivered physically upon surrender of American Depositary Shares for the purpose of withdrawal, that delivery will be made at the Custodian's office, except that, at the request, risk and expense of an Owner surrendering American Depositary Shares for withdrawal of Deposited Securities, and for the account of that Owner, the Depositary shall direct the Custodian to forward any cash or other property comprising, and forward a certificate or certificates, if applicable, and other proper documents of title, if any, for, the Deposited Securities represented by the surrendered American Depositary Shares to the Depositary for delivery at the Depositary's Office or to another address specified in the order received from the surrendering Owner.

SECTION 2.6. Limitations on Delivery and Registration, Transfer and Surrender of American Depositary Shares.

As a condition precedent to the delivery, registration of transfer or surrender of any American Depositary Shares or split-up or combination of any Receipt or withdrawal of any Deposited Securities, the Depositary, Custodian or Registrar may require payment from the depositor of Shares or the presenter of the Receipt or instruction for registration of transfer or surrender of American Depositary Shares not evidenced by a Receipt of a sum sufficient to reimburse it for any tax or other governmental charge and any stock transfer or registration fee with respect thereto (including any such tax or charge

and fee with respect to Shares being deposited or withdrawn) and payment of any applicable fees as provided in this Deposit Agreement, may require the production of proof satisfactory to it as to the identity and genuineness of any signature and may also require compliance with any regulations the Depositary may establish consistent with the provisions of this Deposit Agreement, including, without limitation, this Section 2.6.

The Depositary may refuse to accept deposits of Shares for delivery of American Depositary Shares, refuse to register transfers of American Depositary Shares in particular instances, or suspend deposits of Shares or registration of transfer generally, whenever it or the Company considers it necessary or advisable to do so. The Depositary may refuse surrenders of American Depositary Shares for the purpose of withdrawal of Deposited Securities in particular instances, or may suspend surrenders for the purpose of withdrawal generally, but, notwithstanding anything to the contrary in this Deposit Agreement, only for (i) temporary delays caused by closing of the Depositary's register or the register of holders of Shares maintained by the Company or the Foreign Registrar, or the deposit of Shares, in connection with voting at a shareholders' meeting or the payment of dividends, (ii) the payment of fees, taxes and similar charges, (iii) compliance with any U.S. or foreign laws or governmental regulations relating to the American Depositary Shares or to the withdrawal of the Deposited Securities or (iv) any other reason that, at the time, is permitted under paragraph I(A)(1) of the General Instructions to Form F-6 under the Securities Act of 1993 or any successor to that provision.

The Depositary shall not knowingly accept for deposit under this Deposit Agreement any Shares that, at the time of deposit, are Restricted Securities.

SECTION 2.7. Lost Receipts, etc.

If a Receipt is mutilated, destroyed, lost or stolen, the Depositary shall deliver to the Owner the American Depositary Shares evidenced by that Receipt in uncertificated form or, if requested by the Owner, execute and deliver a new Receipt of like tenor in exchange and substitution for such mutilated Receipt, upon surrender and cancellation of that mutilated Receipt, or in lieu of and in substitution for that destroyed, lost or stolen Receipt. However, before the Depositary will deliver American Depositary Shares in uncertificated form or execute and deliver a new Receipt, in substitution for a destroyed, lost or stolen Receipt, the Owner must (a) file with the Depositary (i) a request for that replacement before the Depositary has notice that the Receipt has been acquired by a bona fide purchaser and (ii) a sufficient indemnity bond and (b) satisfy any other reasonable requirements imposed by the Depositary.

SECTION 2.8. Cancellation and Destruction of Surrendered Receipts.

The Depositary shall cancel all Receipts surrendered to it and is authorized to destroy Receipts so cancelled.

SECTION 2.9. DTC Direct Registration System and Profile Modification System.

(a) Notwithstanding the provisions of Section 2.4, the parties acknowledge that DTC's Direct Registration System ("DRS") and Profile Modification System ("Profile") apply to the American Depositary Shares upon acceptance thereof to DRS by DTC. DRS is the system administered by DTC that facilitates interchange between registered holding of uncertificated securities and holding of security entitlements in those securities through DTC and a DTC participant. Profile is a required feature of DRS that allows a DTC participant, claiming to act on behalf of an Owner of American Depositary Shares, to direct the Depositary to register a transfer of those American Depositary Shares to DTC or its nominee and to deliver those American Depositary Shares to the DTC account of that DTC participant without receipt by the Depositary of prior authorization from the Owner to register that transfer.

(b) In connection with DRS/Profile, the parties acknowledge that the Depositary will not determine whether the DTC participant that is claiming to be acting on behalf of an Owner in requesting a registration of transfer and delivery as described in paragraph (a) above has the actual authority to act on behalf of that Owner (notwithstanding any requirements under the Uniform Commercial Code). For the avoidance of doubt, the provisions of Sections 5.3 and 5.8 apply to the matters arising from the use of the DRS/Profile. The parties agree that the Depositary's reliance on and compliance with instructions received by the Depositary through the DRS/Profile system and otherwise in accordance with this Deposit Agreement shall not constitute negligence or bad faith on the part of the Depositary.

ARTICLE 3. CERTAIN OBLIGATIONS OF OWNERS AND HOLDERS OF AMERICAN DEPOSITARY SHARES

SECTION 3.1. Filing Proofs, Certificates and Other Information.

Any person presenting Shares for deposit or any Owner or Holder may be required from time to time to file with the Depositary or the Custodian such proof of citizenship or residence, exchange control approval, or such information relating to the registration on the books of the Company or the Foreign Registrar, if applicable, to execute such certificates and to make such representations and warranties, as the Depositary may deem necessary or proper. The Depositary may withhold the delivery or registration of transfer of American Depositary Shares, the distribution of any dividend or other distribution or of the proceeds thereof or the delivery of any Deposited Securities until that proof or other information is filed or those certificates are executed or those representations and warranties are made. Upon reasonable request of the Company, the Depositary shall provide to the Company, as promptly as practicable upon its written request, copies of any such proofs of citizenship or residence, or exchange control approval that it receives pursuant to this Section 3.1, to the extent that disclosure is permitted under applicable law.

Each Owner and Holder agrees to provide any information requested by the Depositary pursuant to this Section 3.1.

SECTION 3.2. Liability of Owner for Taxes.

If any tax or other governmental charge shall become payable by the Custodian or the Depositary with respect to or in connection with any American Depositary Shares or any Deposited Securities represented by any American Depositary Shares or in connection with a transaction to which Section 4.8 applies, that tax or other governmental charge shall be payable by the Owner of those American Depositary Shares to the Depositary. The Depositary may refuse to register any transfer of those American Depositary Shares or any withdrawal of Deposited Securities represented by those American Depositary Shares until that payment is made, and may withhold any dividends or other distributions or the proceeds thereof, or may sell for the account of the Owner any part or all of the Deposited Securities represented by those American Depositary Shares and apply those dividends or other distributions or the net proceeds of any sale of that kind in payment of that tax or other governmental charge but, even after a sale of that kind, the Owner of those American Depositary Shares shall remain liable for any deficiency. The Depositary shall distribute any net proceeds of a sale made under this Section that are not used to pay taxes or governmental charges to the Owners entitled to them in accordance with Section 4.1. If the number of Shares represented by each American Depositary Share decreases as a result of a sale of Deposited Securities under this Section, the Depositary may call for surrender of the American Depositary Shares to be exchanged on a mandatory basis for a lesser number of American Depositary Shares and may sell American Depositary Shares to the extent necessary to avoid distributing fractions of American Depositary Shares in that exchange and distribute the net proceeds of that sale to the Owners entitled to them.

SECTION 3.3. Warranties on Deposit of Shares.

Every person depositing Shares under this Deposit Agreement shall be deemed thereby to represent and warrant that those Shares and each certificate therefor, if applicable, are validly issued, fully paid and nonassessable and were not issued in violation of any preemptive or similar rights of the holders of outstanding securities of the Company and that the person making that deposit is duly authorized so to do. Every depositing person shall also be deemed to represent that the Shares, at the time of deposit, are not Restricted Securities. All representations and warranties deemed made under this Section shall survive the deposit of Shares and delivery of American Depositary Shares.

SECTION 3.4. Disclosure of Interests.

When required in order to comply with applicable laws and regulations, the rules and requirements of the Nasdaq Stock Market LLC or any other stock exchange on which the Shares or the American Depositary Shares are registered or the articles of association or similar document of the Company, the Company may from time to time

request each Owner and Holder to provide to the Depositary information relating to: (a) the capacity in which it holds American Depositary Shares, (b) the identity of any Holders or other persons or entities then or previously interested in those American Depositary Shares and the nature of those interests and (c) any other matter where disclosure of such matter is required for that compliance. Each Owner and Holder agrees to provide all information known to it in response to a request made pursuant to this Section. Each Holder consents to the disclosure by the Depositary, the Owner or any other Holder through which it holds American Depositary Shares, directly or indirectly, of all information responsive to a request made pursuant to this Section relating to that Holder that is known to that Owner or other Holder. The Depositary agrees to use reasonable efforts to comply with written instructions requesting that the Depositary forward any request authorized under this Section to the Owners and to forward to the Company any responses it receives in response to that request. The Depositary may charge the Company a fee and its expenses for complying with requests under this Section 3.4.

ARTICLE 4. THE DEPOSITED SECURITIES

SECTION 4.1. Cash Distributions.

Whenever the Depositary receives any cash dividend or other cash distribution on Deposited Securities, the Depositary shall, subject to the provisions of Section 4.5, convert that dividend or other distribution into Dollars and distribute the amount thus received (net of the fees and expenses of the Depositary as provided in Section 5.9) to the Owners entitled thereto, in proportion to the number of American Depositary Shares representing those Deposited Securities held by them respectively; provided, however, that if the Custodian or the Depositary shall be required to withhold and does withhold from that cash dividend or other cash distribution an amount on account of taxes or other governmental charges, the amount distributed to the Owners of the American Depositary Shares representing those Deposited Securities shall be reduced accordingly. However, the Depositary will not pay any Owner a fraction of one cent, but will round each Owner's entitlement to the nearest whole cent.

The Company or its agent will remit to the appropriate governmental agency in each applicable jurisdiction all amounts withheld and owing to such agency.

If a cash distribution would represent a return of all or substantially all the value of the Deposited Securities underlying American Depositary Shares, the Depositary may:

(i) require payment of or deduct the fee for surrender of American Depositary Shares (whether or not it is also requiring surrender of American Depositary Shares) as a condition of making that cash distribution; or

(ii) sell all Deposited Securities other than the subject cash distribution and add any net cash proceeds of that sale to the cash distribution, call for

surrender of all those American Depositary Shares and require that surrender as a condition of making that cash distribution.

If the Depositary acts under this paragraph, that action shall also be a Termination Option Event.

SECTION 4.2. Distributions Other Than Cash, Shares or Rights.

Subject to the provisions of Sections 4.11 and 5.9, whenever the Depositary receives any distribution other than a distribution described in Section 4.1, 4.3 or 4.4 on Deposited Securities (but not in exchange for or in conversion or in lieu of Deposited Securities), the Depositary shall cause the securities or property received by it to be distributed to the Owners entitled thereto, after deduction or upon payment of any fees and expenses of the Depositary and any taxes or other governmental charges, in proportion to the number of American Depositary Shares representing such Deposited Securities held by them respectively, in any manner that the Depositary deems equitable and practicable for accomplishing that distribution (which may be a distribution of depositary shares representing the securities received); provided, however, that if in the opinion of the Depositary such distribution cannot be made proportionately among the Owners entitled thereto, or if for any other reason (including, but not limited to, any requirement that the Company or the Depositary withhold an amount on account of taxes or other governmental charges or that securities received must be registered under the Securities Act of 1933 in order to be distributed to Owners or Holders) the Depositary, after consultation with the Company to the extent practicable, deems such distribution not to be lawful and feasible, the Depositary may adopt such other method as it may deem equitable and practicable for the purpose of effecting such distribution, including, but not limited to, the public or private sale of the securities or property thus received, or any part thereof, and distribution of the net proceeds of any such sale (net of the fees and expenses of the Depositary as provided in Section 5.9) to the Owners entitled thereto, all in the manner and subject to the conditions set forth in Section 4.1. The Depositary may withhold any distribution of securities under this Section 4.2 if it has not received satisfactory assurances from the Company that the distribution does not require registration under the Securities Act of 1933. The Depositary may sell, by public or private sale, an amount of securities or other property it would otherwise distribute under this Section 4.2 that is sufficient to pay its fees and expenses in respect of that distribution.

If a distribution to be made under this Section 4.2 would represent a return of all or substantially all the value of the Deposited Securities underlying American Depositary Shares, the Depositary may:

(i) require payment of or deduct the fee for surrender of American Depositary Shares (whether or not it is also requiring surrender of American Depositary Shares) as a condition of making that distribution; or

(ii) sell all Deposited Securities other than the subject distribution and add any net cash proceeds of that sale to the distribution, call for surrender of all those American Depositary Shares and require that surrender as a condition of making that distribution.

If the Depositary acts under this paragraph, that action shall also be a Termination Option Event.

SECTION 4.3. Distributions in Shares.

Whenever the Depositary receives any distribution on Deposited Securities consisting of a dividend in, or free distribution of, Shares, the Depositary may deliver to the Owners entitled thereto, in proportion to the number of American Depositary Shares representing those Deposited Securities held by them respectively, an aggregate number of American Depositary Shares representing the amount of Shares received as that dividend or free distribution, subject to the terms and conditions of this Deposit Agreement with respect to the deposit of Shares and issuance of American Depositary Shares, including withholding of any tax or governmental charge as provided in Section 4.11 and payment of the fees and expenses of the Depositary as provided in Section 5.9 (and the Depositary may sell, by public or private sale, an amount of the Shares received (or American Depositary Shares representing those Shares) sufficient to pay its fees and expenses in respect of that distribution). In lieu of delivering fractional American Depositary Shares, the Depositary may sell the amount of Shares represented by the aggregate of those fractions (or American Depositary Shares representing those Shares) and distribute the net proceeds, all in the manner and subject to the conditions described in Section 4.1. If and to the extent that additional American Depositary Shares are not delivered and Shares or American Depositary Shares are not sold, each American Depositary Share shall thenceforth also represent the additional Shares distributed on the Deposited Securities represented thereby.

If the Company declares a distribution in which holders of Deposited Securities have a right to elect whether to receive cash, Shares or other securities or a combination of those things, or a right to elect to have a distribution sold on their behalf, the Depositary may, after consultation with the Company, make that right of election available for exercise by Owners in any manner the Depositary considers to be lawful and practical. As a condition of making a distribution election right available to Owners, the Depositary may require satisfactory assurances from the Company that doing so does not require registration of any securities under the Securities Act of 1933 that has not already been effected.

SECTION 4.4. Rights.

(a) If rights are granted to the Depositary in respect of deposited Shares to purchase additional Shares or other securities, the Company and the Depositary shall endeavor to consult as to the actions, if any, the Depositary should take in connection with

that grant of rights. The Depositary may, to the extent deemed by it to be lawful and practical (i) if requested in writing by the Company, grant to all or certain Owners rights to instruct the Depositary to purchase the securities to which the rights relate and deliver those securities or American Depositary Shares representing those securities to Owners, (ii) if requested in writing by the Company, deliver the rights to or to the order of certain Owners, or (iii) sell the rights to the extent practicable and distribute the net proceeds of that sale to Owners entitled to those proceeds. To the extent rights are not exercised, delivered or disposed of under (i), (ii) or (iii) above, the Depositary shall permit the rights to lapse unexercised.

(b) If the Depositary will act under (a)(i) above, the Company and the Depositary will enter into a separate agreement setting forth the conditions and procedures applicable to the particular offering. Upon instruction from an applicable Owner in the form the Depositary specified and upon payment by that Owner to the Depositary of an amount equal to the purchase price of the securities to be received upon the exercise of the rights, the Depositary shall, on behalf of that Owner, exercise the rights and purchase the securities. The purchased securities shall be delivered to, or as instructed by, the Depositary. The Depositary shall (i) deposit the purchased Shares under this Deposit Agreement and deliver American Depositary Shares representing those Shares to that Owner or (ii) deliver or cause the purchased Shares or other securities to be delivered to or to the order of that Owner. The Depositary will not act under (a)(i) above unless the offer and sale of the securities to which the rights relate are registered under the Securities Act of 1933 or the Depositary has received an opinion of United States counsel that is satisfactory to it to the effect that those securities may be sold and delivered to the applicable Owners without registration under the Securities Act of 1933.

(c) If the Depositary will act under (a)(ii) above, the Company and the Depositary will enter into a separate agreement setting forth the conditions and procedures applicable to the particular offering. Upon (i) the request of an applicable Owner to deliver the rights allocable to the American Depositary Shares of that Owner to an account specified by that Owner to which the rights can be delivered and (ii) receipt of such documents as the Company and the Depositary agreed to require to comply with applicable law, the Depositary will deliver those rights as requested by that Owner.

(d) If the Depositary will act under (a)(iii) above, the Depositary will use reasonable efforts to sell the rights in proportion to the number of American Depositary Shares held by the applicable Owners and pay the net proceeds to the Owners otherwise entitled to the rights that were sold, upon an averaged or other practical basis without regard to any distinctions among such Owners because of exchange restrictions or the date of delivery of any American Depositary Shares or otherwise.

(e) Payment or deduction of the fees of the Depositary as provided in Section 5.9 and payment or deduction of the expenses of the Depositary and any applicable

taxes or other governmental charges shall be conditions of any delivery of securities or payment of cash proceeds under this Section 4.4.

(f) The Depositary shall not be responsible for any failure to determine that it may be lawful or feasible to make rights available to or exercise rights on behalf of Owners in general or any Owner in particular, or to sell rights.

SECTION 4.5. Conversion of Foreign Currency.

Whenever the Depositary or the Custodian receives foreign currency, by way of dividends or other distributions or the net proceeds from the sale of securities, property or rights, and if at the time of the receipt thereof the foreign currency so received can in the judgment of the Depositary be converted on a reasonable basis into Dollars and the resulting Dollars transferred to the United States, the Depositary or one of its agents or affiliates or the Custodian shall convert or cause to be converted by sale or in any other manner that it may determine that foreign currency into Dollars, and those Dollars shall be distributed to the Owners entitled thereto. A cash distribution may be made upon an averaged or other practicable basis without regard to any distinctions among Owners based on exchange restrictions, the date of delivery of any American Depositary Shares or otherwise and shall be net of any expenses of conversion into Dollars incurred by the Depositary as provided in Section 5.9.

If a conversion of foreign currency or the repatriation or distribution of Dollars can be effected only with the approval or license of any government or agency thereof, the Depositary may, but will not be required to, file an application for that approval or license.

If the Depositary determines that in its judgment any foreign currency received by the Depositary or the Custodian is not convertible on a reasonable basis into Dollars transferable to the United States, or if any approval or license of any government or agency thereof that is required for such conversion is not filed or sought by the Depositary or is not obtained within a reasonable period as determined by the Depositary, the Depositary may distribute the foreign currency received by the Depositary to, or in its discretion may hold such foreign currency uninvested and without liability for interest thereon for the respective accounts of, the Owners entitled to receive the same.

If any conversion of foreign currency, in whole or in part, cannot be effected for distribution to some of the Owners entitled thereto, the Depositary may in its discretion make that conversion and distribution in Dollars to the extent practicable and permissible to the Owners entitled thereto and may distribute the balance of the foreign currency received by the Depositary to, or hold that balance uninvested and without liability for interest thereon for the account of, the Owners entitled thereto.

The Depositary may convert currency itself or through any of its affiliates, or the Custodian or the Company may convert currency and pay Dollars to the Depositary.

Where the Depositary converts currency itself or through any of its affiliates, the Depositary 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 this 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 by it or its affiliate in any currency conversion under this 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 Owners, subject to the Depositary's obligations under Section 5.3. The methodology used to determine exchange rates used in currency conversions made by the Depositary is available upon request. Where the Custodian converts currency, the Custodian has no obligation to obtain the most favorable rate that could be obtained at the time or to ensure that the method by which that rate will be determined will be the most favorable to Owners, and the Depositary makes no representation that the rate is the most favorable rate and will not be liable for any direct or indirect losses associated with the rate. In certain instances, the Depositary may receive dividends or other distributions from the Company in Dollars that represent the proceeds of a conversion of foreign currency or translation from foreign currency at a rate that was obtained or determined by or on behalf of the Company and, in such cases, the Depositary will not engage in, or be responsible for, any foreign currency transactions and neither it nor the Company makes any representation that the rate obtained or determined by the Company is the most favorable rate and neither it nor the Company will be liable for any direct or indirect losses associated with the rate.

SECTION 4.6. Fixing of Record Date.

Whenever a cash dividend, cash distribution or any other distribution is made on Deposited Securities or rights to purchase Shares or other securities are issued with respect to Deposited Securities (which rights will be delivered to or exercised or sold on behalf of Owners in accordance with Section 4.4) or the Depositary receives notice that a distribution or issuance of that kind will be made, or whenever the Depositary receives notice that a meeting of holders of Shares will be held in respect of which the Company has requested the Depositary to send a notice under Section 4.7, or whenever the Depositary will assess a fee or charge against the Owners, or whenever the Depositary causes a change in the number of Shares that are represented by each American Depositary Share, or whenever the Depositary otherwise finds it necessary or convenient, the Depositary shall fix a record date, which shall be the same as, or as near as practicable to, any corresponding record date set by the Company with respect to Shares, (a) for the determination of the Owners (i) who shall be entitled to receive the benefit of that dividend or other distribution or those rights, (ii) who shall be entitled to give instructions for the exercise of voting rights at that meeting, (iii) who shall be responsible for that fee or charge or (iv) for any other purpose for which the record date was set, or (b) on or after which

each American Depositary Share will represent the changed number of Shares. Subject to the provisions of Sections 4.1 through 4.5 and to the other terms and conditions of this Deposit Agreement, the Owners on a record date fixed by the Depositary shall be entitled to receive the amount distributable by the Depositary with respect to that dividend or other distribution or those rights or the net proceeds of sale thereof in proportion to the number of American Depositary Shares held by them respectively, to give voting instructions or to act in respect of the other matter for which that record date was fixed, or be responsible for that fee or charge, as the case may be.

SECTION 4.7. Voting of Deposited Shares.

(a) Upon receipt of notice of any meeting of holders of Shares at which holders of Shares will be entitled to vote, if requested in writing by the Company, the Depositary shall, as soon as practicable thereafter, Disseminate to the Owners a notice, the form of which shall be in the sole discretion of the Depositary, that shall contain (i) the information contained in the notice of meeting received by the Depositary, (ii) a statement that the Owners as of the close of business on a specified record date will be entitled, subject to any applicable provision of the laws of England and Wales and of the articles of association or similar documents of the Company, to instruct the Depositary as to the exercise of the voting rights pertaining to the amount of Shares represented by their respective American Depositary Shares (iii) a statement as to the manner in which those instructions may be given, including an express indication that instructions may be deemed given in accordance with the last sentence of paragraph (b) below, if no instruction is received, to the Depositary to give a discretionary proxy to a person designated by the Company and (iv) the last date on which the Depositary will accept instructions (the "Instruction Cutoff Date").

(b) Upon the written request of an Owner of American Depositary Shares, as of the date of the request or, if a record date was specified by the Depositary, as of that record date, received on or before any Instruction Cutoff Date established by the Depositary, the Depositary may, and if the Depositary sent a notice under the preceding paragraph shall, endeavor, in so far as practicable, to vote or cause to be voted the amount of deposited Shares represented by those American Depositary Shares in accordance with the instructions set forth in that request. The Depositary shall not vote or attempt to exercise the right to vote that attaches to the deposited Shares other than in accordance with instructions given by Owners and received by the Depositary or as provided in the following sentence. If

(i) the Company instructed the Depositary to Disseminate a notice under paragraph (a) above and complied with paragraph (d) below,

(ii) no instructions are received by the Depositary from an Owner with respect to a matter and an amount of American Depositary Shares of that Owner on or before the Instruction Cutoff Date and

(iii) the Depositary has received from the Company, by the business day following the Instruction Cutoff Date, a written confirmation that, as of the Instruction Cutoff Date, (x) the Company wishes a proxy to be given under this sentence, (y) the Company reasonably does not know of any substantial opposition to the matters and (z) the matters are not materially adverse to the interests of shareholders,

then, the Depositary shall deem that Owner to have instructed the Depositary to give a discretionary proxy to a person designated by the Company with respect to that matter and the amount of deposited Shares represented by that amount of American Depositary Shares and the Depositary shall give a discretionary proxy to a person designated by the Company to vote that amount of deposited Shares as to that matter.

(c) There can be no assurance that Owners generally or any Owner in particular will receive the notice described in paragraph (a) above in time to enable Owners to give instructions to the Depositary prior to the Instruction Cutoff Date.

(d) If the Company will request the Depositary to Disseminate a notice under paragraph (a) above, the Company shall give the Depositary notice of the meeting, details concerning the matters to be voted upon and copies of materials to be made available to holders of Shares in connection with the meeting not less than 45 days prior to the meeting date.

Notwithstanding anything in this Section 4.7 to the contrary, the Depositary and the Company may modify, amend or adopt additional procedures relating to voting of deposited Shares from time to time as they determine may be necessary to comply with applicable laws and regulations.

SECTION 4.8. Tender and Exchange Offers; Redemption, Replacement or Cancellation of Deposited Securities.

(a) The Depositary shall not tender any Deposited Securities in response to any voluntary cash tender offer, exchange offer or similar offer made to holders of Deposited Securities (a "Voluntary Offer"), except when instructed in writing to do so by an Owner surrendering American Depositary Shares and subject to any conditions or procedures the Depositary may require.

(b) If the Depositary receives a written notice that Deposited Securities have been redeemed for cash or otherwise purchased for cash in a transaction that is mandatory and binding on the Depositary as a holder of those Deposited Securities (a "Redemption"), the Depositary, at the expense of the Company, shall (i) if required, surrender Deposited Securities that have been redeemed to the issuer of those securities or its agent on the redemption date, (ii) Disseminate a notice to Owners (A) notifying them of that Redemption, (B) calling for surrender of a corresponding number of American Depositary Shares and (C) notifying them that the called American Depositary Shares have

been converted into a right only to receive the money received by the Depositary upon that Redemption and those net proceeds shall be the Deposited Securities to which Owners of those converted American Depositary Shares shall be entitled upon surrenders of those American Depositary Shares in accordance with Section 2.5 or 6.2 and (iii) distribute the money received upon that Redemption to the Owners entitled to it upon surrender by them of called American Depositary Shares in accordance with Section 2.5 (and, for the avoidance of doubt, Owners shall not be entitled to receive that money under Section 4.1). If the Redemption affects less than all the Deposited Securities, the Depositary shall call for surrender a corresponding portion of the outstanding American Depositary Shares and only those American Depositary Shares will automatically be converted into a right to receive the net proceeds of the Redemption. The Depositary shall allocate the American Depositary Shares converted under the preceding sentence among the Owners pro-rata to their respective holdings of American Depositary Shares immediately prior to the Redemption, except that the allocations may be adjusted so that no fraction of a converted American Depositary Share is allocated to any Owner. A Redemption of all or substantially all of the Deposited Securities shall be a Termination Option Event.

(c) If the Depositary is notified of or there occurs any change in nominal value or any subdivision, combination or any other reclassification of the Deposited Securities or any recapitalization, reorganization, sale of assets substantially as an entirety, merger or consolidation affecting the issuer of the Deposited Securities or to which it is a party that is mandatory and binding on the Depositary as a holder of Deposited Securities and, as a result, securities or other property have been or will be delivered in exchange, conversion, replacement or in lieu of, Deposited Securities (a "Replacement"), the Depositary shall, if required, surrender the old Deposited Securities affected by that Replacement of Shares and hold, as new Deposited Securities under this Deposit Agreement, the new securities or other property delivered to it in that Replacement. However, the Depositary may elect to sell those new Deposited Securities if in the opinion of the Depositary, after consultation with the Company to the extent practicable, it is not lawful or not practical for it to hold those new Deposited Securities under this Deposit Agreement because those new Deposited Securities may not be distributed to Owners without registration under the Securities Act of 1933 or for any other reason, at public or private sale, at such places and on such terms as it deems proper and proceed as if those new Deposited Securities had been Redeemed under paragraph (b) above. A Replacement shall be a Termination Option Event.

(d) In the case of a Replacement where the new Deposited Securities will continue to be held under this Deposit Agreement, the Depositary may, after consultation with the Company to the extent practicable, call for the surrender of outstanding Receipts to be exchanged for new Receipts specifically describing the new Deposited Securities and the number of those new Deposited Securities represented by each American Depositary Share. If the number of Shares represented by each American Depositary Share decreases as a result of a Replacement, the Depositary may call for surrender of the American Depositary Shares to be exchanged on a mandatory basis for a

lesser number of American Depositary Shares and may sell American Depositary Shares to the extent necessary to avoid distributing fractions of American Depositary Shares in that exchange and distribute the net proceeds of that sale to the Owners entitled to them.

(e) If there are no Deposited Securities with respect to American Depositary Shares, including if the Deposited Securities are cancelled, or the Deposited Securities with respect to American Depositary Shares have become apparently worthless, the Depositary may call for surrender of those American Depositary Shares or may cancel those American Depositary Shares, upon notice to Owners, and that condition shall be a Termination Option Event.

SECTION 4.9. Reports.

The Depositary shall make available for inspection by Owners at its Office any reports and communications, including any proxy solicitation material, received from the Company which are both (a) received by the Depositary as the holder of the Deposited Securities and (b) made generally available to the holders of those Deposited Securities by the Company. The Company shall furnish reports and communications, including any proxy soliciting material to which this Section applies, to the Depositary in English, to the extent those materials are required to be translated into English pursuant to any regulations of the Commission.

SECTION 4.10. Lists of Owners.

Upon written request by the Company (unless otherwise agreed between the Company and the Depositary), the Depositary shall, at the expense of the Company, furnish to it a list, as of a recent date, of the names, addresses and American Depositary Share holdings of all Owners.

SECTION 4.11. Withholding.

If the Depositary determines that any distribution received or to be made by the Depositary (including Shares and rights to subscribe therefor) is subject to any tax or other governmental charge that the Depositary is obligated to withhold, the Depositary may sell, by public or private sale, all or a portion of the distributed property (including Shares and rights to subscribe therefor) in the amounts and manner the Depositary deems necessary and practicable to pay those taxes or charges, and the Depositary shall distribute the net proceeds of that sale, after deduction of those taxes or charges, to the Owners entitled thereto in proportion to the number of American Depositary Shares held by them respectively.

Services for Owners and Holders that may permit them to obtain reduced rates of tax withholding at source or reclaim excess tax withheld, and the fees and costs associated with using services of that kind, are not provided under, and are outside the scope of, this Deposit Agreement.

Each Owner and Holder agrees to indemnify the Company, the Depositary, the Custodian and their respective directors, employees, agents and affiliates for, and hold each of them harmless against, any claim by any governmental authority with respect to taxes, additions to tax, penalties or interest arising out of any refund of taxes, reduced withholding at source or other tax benefit received by it.

ARTICLE 5. THE DEPOSITARY, THE CUSTODIANS AND THE COMPANY

SECTION 5.1. Maintenance of Office and Register by the Depositary.

Until termination of this Deposit Agreement in accordance with its terms, the Depositary shall maintain facilities for the delivery and registration of transfers and surrender of American Depositary Shares in accordance with the provisions of this Deposit Agreement.

The Depositary shall keep a register of all Owners and all outstanding American Depositary Shares, which shall be open for inspection by the Owners at the Depositary's Office during regular business hours, but only for the purpose of communicating with Owners regarding the business of the Company or a matter related to this Deposit Agreement or the American Depositary Shares.

The Depositary may close the register for delivery, registration of transfers or surrender of American Depositary Shares for the purpose of withdrawal from time to time as provided in Section 2.6.

If any American Depositary Shares are listed on one or more stock exchanges, the Depositary shall act as Registrar or appoint a Registrar or one or more co-registrars for registration of those American Depositary Shares in accordance with any requirements of that exchange or those exchanges.

The Company shall have the right, at all reasonable times, to inspect transfer and registration records of the Depositary, the Registrar and any co-transfer agents or co-registrars and to require them to supply, at the Company's expense, copies of such portions of their records as the Company may reasonably request.

SECTION 5.2. Prevention or Delay of Performance by the Company or the Depositary.

Neither the Depositary nor the Company nor any of their respective directors, employees, agents or affiliates shall incur any liability to any Owner or Holder:

(i) if by reason of (A) any provision of any present or future law or regulation or other act of the government of the United States, any State of the United States or any other state or jurisdiction, or of any governmental or regulatory authority or stock exchange; (B) (in the case of the Depositary only) any provision, present or future,

of the articles of association or similar document of the Company, or any provision of any securities issued or distributed by the Company, or any offering or distribution thereof; or (C) any event or circumstance, whether natural or caused by a person or persons, that is beyond the ability of the Depositary or the Company, as the case may be, to prevent or counteract by reasonable care or effort (including, but not limited to, earthquakes, floods, severe storms, fires, explosions, war, terrorism, civil unrest, labor disputes, criminal acts or outbreaks of infectious disease; interruptions or malfunctions of utility services, Internet or other communications lines or systems; unauthorized access to or attacks on computer systems or websites; or other failures or malfunctions of computer hardware or software or other systems or equipment), the Depositary or the Company is, directly or indirectly, prevented from, forbidden to or delayed in, or could be subject to any civil or criminal penalty on account of doing or performing and therefore does not do or perform, any act or thing that, by the terms of this Deposit Agreement or the Deposited Securities, it is provided shall be done or performed;

(ii) for any exercise of, or failure to exercise, any discretion provided for in this Deposit Agreement (including any determination by the Depositary to take, or not take, any action that this Deposit Agreement provides the Depositary may take);

(iii) for the inability of any Owner or Holder to benefit from any distribution, offering, right or other benefit that is made available to holders of Deposited Securities but is not, under the terms of this Deposit Agreement, made available to Owners or Holders; or

(iv) for any special, consequential or punitive damages for any breach of the terms of this Deposit Agreement.

Where, by the terms of a distribution to which Section 4.1, 4.2 or 4.3 applies, or an offering to which Section 4.4 applies, or for any other reason, that distribution or offering may not be made available to Owners, and the Depositary may not dispose of that distribution or offering on behalf of Owners and make the net proceeds available to Owners, then the Depositary shall not make that distribution or offering available to Owners, and shall allow any rights, if applicable, to lapse.

SECTION 5.3. Obligations of the Depositary and the Company.

The Company assumes no obligation nor shall it be subject to any liability under this Deposit Agreement to any Owner or Holder, except that the Company agrees to perform its obligations specifically set forth in this Deposit Agreement without negligence or bad faith.

The Depositary assumes no obligation nor shall it be subject to any liability under this Deposit Agreement to any Owner or Holder (including, without limitation, liability with respect to the validity or worth of the Deposited Securities), except that the Depositary agrees to perform its obligations specifically set forth in this Deposit

Agreement without negligence or bad faith, and the Depositary shall not be a fiduciary or have any fiduciary duty to Owners or Holders.

Neither the Depositary nor the Company shall be under any obligation to appear in, prosecute or defend any action, suit or other proceeding in respect of any Deposited Securities or in respect of the American Depositary Shares on behalf of any Owner or Holder or any other person.

Each of the Depositary and the Company may rely, and shall be protected in relying upon, any written notice, request, direction or other document believed by it to be genuine and to have been signed or presented by the proper party or parties.

Neither the Depositary nor the Company shall be liable for any action or non-action by it in reliance upon the advice of or information from legal counsel, accountants, any person presenting Shares for deposit, any Owner or any other person believed by it in good faith to be competent to give such advice or information.

The Depositary shall not be liable for any acts or omissions made by a successor depositary whether in connection with a previous act or omission of the Depositary or in connection with any matter arising wholly after the removal or resignation of the Depositary, provided that in connection with the issue out of which such potential liability arises the Depositary performed its obligations without negligence or bad faith while it acted as Depositary.

The Depositary shall not be liable for the acts or omissions of any securities depository, clearing agency or settlement system in connection with or arising out of book-entry settlement of American Depositary Shares or Deposited Securities or otherwise.

In the absence of bad faith on its part, the Depositary shall not be responsible for any failure to carry out any instructions to vote any of the Deposited Securities, or for the manner in which any such vote is cast or the effect of any such vote.

The Depositary shall have no duty to make any determination or provide any information as to the tax status of the Company or any liability for any tax consequences that may be incurred by Owners or Holders as a result of owning or holding American Depositary Shares. The Depositary shall not be liable for the inability or failure of an Owner or 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.

No disclaimer of liability under the United States federal securities laws is intended by any provision of this Deposit Agreement.

SECTION 5.4. Resignation and Removal of the Depositary.

The Depositary may at any time resign as Depositary hereunder by written notice of its election so to do delivered to the Company, to become effective upon the appointment of a successor depositary and its acceptance of that appointment as provided in this Section. The effect of resignation if a successor depositary is not appointed is provided for in Section 6.2.

The Depositary may at any time be removed by the Company by 90 days' prior written notice of that removal, to become effective upon the later of (i) the 90th day after delivery of the notice to the Depositary and (ii) the appointment of a successor depositary and its acceptance of its appointment as provided in this Section.

If the Depositary resigns or is removed, the Company shall use its best efforts to appoint a successor depositary, which shall be a bank or trust company having an office in the Borough of Manhattan, The City of New York. Every successor depositary shall execute and deliver to the Company an instrument in writing accepting its appointment under this Deposit Agreement. If the Depositary receives notice from the Company that a successor depositary has been appointed following its resignation or removal, the Depositary, upon payment of all sums due it from the Company, shall deliver to its successor a register listing all the Owners and their respective holdings of outstanding American Depositary Shares and shall deliver the Deposited Securities to or to the order of its successor. When the Depositary has taken the actions specified in the preceding sentence (i) the successor shall become the Depositary and shall have all the rights and shall assume all the duties of the Depositary under this Deposit Agreement and (ii) the predecessor depositary shall cease to be the Depositary and shall be discharged and released from all obligations under this Deposit Agreement, except for its duties under Section 5.8 with respect to the time before that discharge. A successor Depositary shall notify the Owners of its appointment as soon as practical after assuming the duties of Depositary.

Any corporation or other entity into or with which the Depositary may be merged or consolidated shall be the successor of the Depositary without the execution or filing of any document or any further act.

SECTION 5.5. The Custodians.

The Custodian shall be subject at all times and in all respects to the directions of the Depositary and shall be responsible solely to it. The Depositary in its discretion may at any time appoint a substitute or additional custodian or custodians, each of which shall thereafter be one of the Custodians under this Deposit Agreement. If the Depositary receives notice that a Custodian is resigning and, upon the effectiveness of that resignation there would be no Custodian acting under this Deposit Agreement, the Depositary shall, as promptly as practicable after receiving that notice, appoint a substitute custodian or custodians, each of which shall thereafter be a Custodian under this Deposit

Agreement. The Depositary shall require any Custodian that resigns or is removed to deliver all Deposited Securities held by it to another Custodian.

SECTION 5.6. Notices and Reports.

If the Company takes or decides to take any corporate action of a kind that is addressed in Sections 4.1 to 4.4, or 4.6 to 4.8, or that effects or will effect a change of the name or legal structure of the Company, or that effects or will effect a change to the Shares, the Company shall notify the Depositary and the Custodian of that action or decision as soon as it is lawful and practical to give that notice. The notice shall be in English and shall include all details that the Company is required to include in any notice to any governmental or regulatory authority or securities exchange or is required to make available generally to holders of Shares by publication or otherwise.

The Company will arrange for the translation into English, if not already in English, to the extent required pursuant to any regulations of the Commission, and the prompt transmittal by the Company to the Depositary and the Custodian of all notices and any other reports and communications which are made generally available by the Company to holders of its Shares. If requested in writing by the Company, the Depositary will Disseminate, at the Company's expense, those notices, reports and communications to all Owners or otherwise make them available to Owners in a manner that the Company specifies as substantially equivalent to the manner in which those communications are made available to holders of Shares and compliant with the requirements of any securities exchange on which the American Depositary Shares are listed. The Company will timely provide the Depositary with the quantity of such notices, reports, and communications, as requested by the Depositary from time to time, in order for the Depositary to effect that Dissemination.

The Company represents that as of the date of this Deposit Agreement, the statements in Article 11 of the form of Receipt appearing as Exhibit A to this Deposit Agreement or, if applicable, most recently filed with the Commission pursuant to Rule 424(b) under the Securities Act of 1933 with respect to the Company's obligation to file periodic reports under the United States Securities Exchange Act of 1934, as amended, or its qualification for exemption from registration under that Act pursuant to Rule 12g3-2(b) under that Act, as the case may be, are true and correct. The Company agrees to promptly notify the Depositary upon becoming aware of any change in the truth of any of those statements or if there is any change in the Company's status regarding those reporting obligations or that qualification.

SECTION 5.7. Distribution of Additional Shares, Rights, etc.

If the Company or any affiliate of the Company determines to make any issuance or distribution of (1) additional Shares, (2) rights to subscribe for Shares, (3) securities convertible into Shares, or (4) rights to subscribe for such securities (each a "Distribution"), the Company shall notify the Depositary in writing in English as promptly

as practicable and in any event before the Distribution starts and, if requested in writing by the Depositary, the Company shall promptly furnish to the Depositary either (i) evidence satisfactory to the Depositary that the Distribution is registered under the Securities Act of 1933 or (ii) a written opinion from U.S. counsel for the Company that is reasonably satisfactory to the Depositary, stating that the Distribution does not require, or, if made in the United States, would not require, registration under the Securities Act of 1933.

Nothing in this Section 5.7 or elsewhere in this Deposit Agreement shall create any obligation on the part of the Company to file a registration statement with respect to a Distribution or to endeavor to have such a registration statement declared effective.

The Company agrees with the Depositary that neither the Company nor any company controlled by, controlling or under common control with the Company will at any time deposit any Shares that, at the time of deposit, are Restricted Securities.

SECTION 5.8. Indemnification.

The Company agrees to indemnify the Depositary, its directors, employees, agents and affiliates and each Custodian against, and hold each of them harmless from, any liability or expense (including, but not limited to any fees and expenses incurred in seeking, enforcing or collecting such indemnity and the fees and reasonable expenses of counsel) that may arise out of or in connection with (a) any registration with the Commission of American Depositary Shares or Deposited Securities or the offer or sale thereof or (b) acts performed or omitted, pursuant to the provisions of or in connection with this Deposit Agreement and the American Depositary Shares, as the same may be amended, modified or supplemented from time to time, (i) by either the Depositary or a Custodian or their respective directors, employees, agents and affiliates, except for any liability or expense arising out of the negligence or bad faith of either of them and except to the extent that any such liability or expense arises out of information relating to the Depositary or the Custodian, furnished in writing to the Company by the Depositary expressly for use in any registration statement, proxy statement, prospectus (or placement memorandum) or preliminary prospectus (or preliminary placement memorandum) relating to the Shares, or omissions from such information (it being understood and agreed that, as of the date of this Deposit Agreement, the Depositary has not furnished any information of that kind), or (ii) by the Company or any of its directors, employees, agents and affiliates.

The Depositary agrees to indemnify the Company, its directors, employees, agents and affiliates and hold them harmless from any liability or expense that may arise out of acts performed or omitted by the Depositary or any Custodian or their respective directors, employees, agents and affiliates due to their negligence or bad faith.

Any person seeking indemnification hereunder (an “Indemnified Person”) shall notify the person from whom it is seeking indemnification (the “Indemnifying Person”) of the commencement of any indemnifiable action or claim promptly after such Indemnified Person becomes aware of such commencement and shall consult in good faith

with the Indemnifying Person as to the conduct of the defense of such action or claim, which defense shall be reasonable under the circumstances. No Indemnified Person shall compromise or settle any such action or claim without the consent in writing of the Indemnifying Person (which shall not be unreasonably withheld).

SECTION 5.9. Charges of Depositary.

The following charges shall be incurred by any party depositing or withdrawing Shares or by any party surrendering American Depositary Shares or to whom American Depositary Shares are issued (including, without limitation, issuance pursuant to a stock dividend or stock split declared by the Company or an exchange of stock regarding the American Depositary Shares or Deposited Securities or a delivery of American Depositary Shares pursuant to Section 4.3), or by Owners, as applicable: (1) taxes and other governmental charges, (2) such registration fees as may from time to time be in effect for the registration of transfers of Shares generally on the Share register of the Company or Foreign Registrar and applicable to transfers of Shares to or from the name of the Depositary or its nominee or the Custodian or its nominee on the making of deposits or withdrawals hereunder, (3) such cable (including SWIFT) and facsimile transmission fees and expenses as are expressly provided in this Deposit Agreement, (4) such expenses as are incurred by the Depositary in the conversion of foreign currency pursuant to Section 4.5, (5) a fee of $5.00 or less per 100 American Depositary Shares (or portion thereof) for the delivery of American Depositary Shares pursuant to Section 2.3, 4.3 or 4.4 and the surrender of American Depositary Shares pursuant to Section 2.5 or 6.2, (6) a fee of $.05 or less per American Depositary Share (or portion thereof) for any cash distribution made pursuant to this Deposit Agreement, including, but not limited to Sections 4.1 through 4.4 and Section 4.8, (7) a fee for the distribution of securities pursuant to Section 4.2 or of rights pursuant to Section 4.4 (where the Depositary will not exercise or sell those rights on behalf of Owners), such fee being in an amount equal to the fee for the execution and delivery of American Depositary Shares referred to above which would have been charged as a result of the deposit of such securities under this Deposit Agreement (for purposes of this item 7 treating all such securities as if they were Shares) but which securities are instead distributed by the Depositary to Owners, (8) in addition to any fee charged under item 6 above, a fee of $.05 or less per American Depositary Share (or portion thereof) per annum for depositary services, which will be payable as provided in item 9 below, and (9) any other charges payable by the Depositary or the Custodian, any of the Depositary's or Custodian's agents or the agents of the Depositary's or Custodian's agents, in connection with the servicing of Shares or other Deposited Securities (which charges shall be assessed against Owners as of the date or dates set by the Depositary in accordance with Section 4.6 and shall be payable at the sole discretion of the Depositary by billing those Owners for those charges or by deducting those charges from one or more cash dividends or other cash distributions).

The Depositary may collect any of its fees by deduction from any cash distribution payable, or by selling a portion of any securities to be distributed, to Owners that are obligated to pay those fees.

In performing its duties under this 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 own and deal in any class of securities of the Company and its affiliates and in American Depositary Shares.

SECTION 5.10. Retention of Depositary Documents.

The Depositary is authorized to destroy those documents, records, bills and other data compiled during the term of this Deposit Agreement at the times permitted by the laws or regulations governing the Depositary.

SECTION 5.11. Exclusivity.

Without prejudice to the Company's rights under Section 5.4, the Company agrees not to appoint any other depositary for issuance of depositary shares, depositary receipts or any similar securities or instruments so long as The Bank of New York Mellon is acting as Depositary under this Deposit Agreement.

SECTION 5.12. Information for Regulatory Compliance.

Each of the Company and the Depositary shall provide to the other, as promptly as practicable, information from its records or otherwise available to it that is reasonably requested by the other to permit the other to comply with applicable law or requirements of governmental or regulatory authorities.

ARTICLE 6. AMENDMENT AND TERMINATION

SECTION 6.1. Amendment.

The form of the Receipts and any provisions of this Deposit Agreement may at any time and from time to time be amended by agreement between the Company and the Depositary without the consent of Owners or Holders in any respect that they may deem necessary or desirable. Any amendment that would impose or increase any fees or charges (other than taxes and other governmental charges, registration fees, cable (including SWIFT) or facsimile transmission costs, delivery costs or other such expenses), or that would otherwise prejudice any substantial existing right of Owners, shall, however, not become effective as to outstanding American Depositary Shares until the expiration of 30 days after notice of that amendment has been Disseminated to the Owners of outstanding American Depositary Shares. Every Owner and Holder, at the time any amendment so

becomes effective, shall be deemed, by continuing to hold American Depositary Shares or any interest therein, to consent and agree to that amendment and to be bound by this Deposit Agreement as amended thereby. Upon the effectiveness of an amendment to the form of Receipt, including a change in the number of Shares represented by each American Depositary Share, the Depositary may call for surrender of Receipts to be replaced with new Receipts in the amended form or call for surrender of American Depositary Shares to effect that change of ratio. In no event shall any amendment impair the right of the Owner to surrender American Depositary Shares and receive delivery of the Deposited Securities represented thereby, except in order to comply with mandatory provisions of applicable law.

SECTION 6.2. Termination.

(a) The Company may initiate termination of this Deposit Agreement by notice to the Depositary. The Depositary may initiate termination of this Deposit Agreement if (i) at any time 60 days shall have expired after the Depositary delivered to the Company a written resignation notice and a successor depositary has not been appointed and accepted its appointment as provided in Section 5.4 or (ii) a Termination Option Event has occurred or will occur. If termination of this Deposit Agreement is initiated, the Depositary shall Disseminate a notice of termination to the Owners of all American Depositary Shares then outstanding setting a date for termination (the "Termination Date"), which shall be at least 90 days after the date of that notice, and this Deposit Agreement shall terminate on that Termination Date.

(b) After the Termination Date, the Company shall be discharged from all obligations under this Deposit Agreement except for its obligations to the Depositary under Sections 5.8 and 5.9.

(c) At any time after the Termination Date, the Depositary may sell the Deposited Securities then held under this Deposit Agreement and may thereafter hold uninvested the net proceeds of any such sale, together with any other cash then held by it hereunder, unsegregated and without liability for interest, for the pro rata benefit of the Owners of American Depositary Shares that remain outstanding, and those Owners will be general creditors of the Depositary with respect to those net proceeds and that other cash. After making that sale, the Depositary shall be discharged from all obligations under this Deposit Agreement, except (i) to account for the net proceeds and other cash (after deducting, in each case, the fee of the Depositary for the surrender of American Depositary Shares, any expenses for the account of the Owner of such American Depositary Shares in accordance with the terms and conditions of this Deposit Agreement and any applicable taxes or governmental charges) and (ii) for its obligations under Section 5.8 and (iii) to act as provided in paragraph (d) below.

(d) After the Termination Date, the Depositary shall continue to receive dividends and other distributions pertaining to Deposited Securities (that have not been sold), may sell rights and other property as provided in this Deposit Agreement and shall

deliver Deposited Securities (or sale proceeds) upon surrender of American Depositary Shares (after payment or upon deduction, in each case, of the fee of the Depositary for the surrender of American Depositary Shares, any expenses for the account of the Owner of those American Depositary Shares in accordance with the terms and conditions of this Deposit Agreement and any applicable taxes or governmental charges). After the Termination Date, the Depositary shall not accept deposits of Shares or deliver American Depositary Shares. After the Termination Date, (i) the Depositary may refuse to accept surrenders of American Depositary Shares for the purpose of withdrawal of Deposited Securities (that have not been sold) or reverse previously accepted surrenders of that kind that have not settled if in its judgment the requested withdrawal would interfere with its efforts to sell the Deposited Securities, (ii) the Depositary will not be required to deliver cash proceeds of the sale of Deposited Securities until all Deposited Securities have been sold and (iii) the Depositary may discontinue the registration of transfers of American Depositary Shares and suspend the distribution of dividends and other distributions on Deposited Securities to the Owners and need not give any further notices or perform any further acts under this Deposit Agreement except as provided in this Section.

ARTICLE 7. MISCELLANEOUS

SECTION 7.1. Counterparts; Signatures; Delivery.

This Deposit Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of those counterparts shall constitute one and the same instrument. Copies of this Deposit Agreement shall be filed with the Depositary and the Custodians and shall be open to inspection by any Owner or Holder during regular business hours.

The exchange of copies of this Deposit Agreement and manually-signed signature pages by facsimile, or email attaching a pdf or similar bit-mapped image, shall constitute effective execution and delivery of this Deposit Agreement as to the parties to it; copies and signature pages so exchanged may be used in lieu of the original Deposit Agreement and signature pages for all purposes and shall have the same validity, legal effect and admissibility in evidence as an original manual signature; the parties to this Deposit Agreement hereby agree not to argue to the contrary.

SECTION 7.2. No Third Party Beneficiaries.

This Deposit Agreement is for the exclusive benefit of the Company, the Depositary, the Owners and the Holders and their respective successors and shall not be deemed to give any legal or equitable right, remedy or claim whatsoever to any other person.

SECTION 7.3. Severability.

In case any one or more of the provisions contained in this Deposit Agreement or in a Receipt should be or become invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained in this Deposit Agreement or that Receipt shall in no way be affected, prejudiced or disturbed thereby.

SECTION 7.4. Owners and Holders as Parties; Binding Effect.

The Owners and Holders from time to time shall be parties to this Deposit Agreement and shall be bound by all of the terms and conditions of this Deposit Agreement and of the Receipts by acceptance of American Depositary Shares or any interest therein.

SECTION 7.5. Notices.

Any and all notices to be given to the Company shall be in writing and shall be deemed to have been duly given if personally delivered or sent by domestic first class or international air mail or air courier or sent by facsimile transmission or email attaching a pdf or similar bit-mapped image of a signed writing, addressed to Achilles Therapeutics plc, 245 Hammersmith Road, London W6 8PW, United Kingdom, Attention: Chief Financial Officer, or any other place to which the Company may have transferred its principal office with notice to the Depositary.

Any and all notices to be given to the Depositary shall be in writing and shall be deemed to have been duly given if in English and personally delivered or sent by first class domestic or international air mail or air courier or sent by facsimile transmission or email attaching a pdf or similar bit-mapped image of a signed writing, addressed to The Bank of New York Mellon, 240 Greenwich Street, New York, New York 10286, Attention: Depositary Receipt Administration, or any other place to which the Depositary may have transferred its Office with notice to the Company.

Delivery of a notice to the Company or Depositary by mail or air courier shall be deemed effected when deposited, postage prepaid, in a post-office letter box or received by an air courier service. Delivery of a notice to the Company or Depositary sent by facsimile transmission or email shall be deemed effected when the recipient acknowledges receipt of that notice.

A notice to be given to an Owner shall be deemed to have been duly given when Disseminated to that Owner. Dissemination in paper form will be effective when personally delivered or sent by first class domestic or international air mail or air courier, addressed to that Owner at the address of that Owner as it appears on the transfer books for American Depositary Shares of the Depositary, or, if that Owner has filed with the Depositary a written request that notices intended for that Owner be mailed to some other address, at the address designated in that request. Dissemination in electronic form will be

effective when sent in the manner consented to by the Owner to the electronic address most recently provided by the Owner for that purpose.

SECTION 7.6. Appointment of Agent for Service of Process; Submission to Jurisdiction; Jury Trial Waiver.

The Company hereby (i) designates and appoints the person named in Exhibit A to this Deposit Agreement as the Company's authorized agent in the United States upon which process may be served in any suit or proceeding arising out of or relating to the Shares or Deposited Securities, the American Depositary Shares, the Receipts or this Deposit Agreement (a "Proceeding"), (ii) consents and submits to the jurisdiction of any state or federal court in the State of New York in which any Proceeding may be instituted and (iii) agrees that service of process upon said authorized agent shall be deemed in every respect effective service of process upon the Company in any Proceeding. The Company agrees to deliver to the Depositary, upon the execution and delivery of this Deposit Agreement, a written acceptance by the agent named in Exhibit A to this Deposit Agreement of its appointment as process agent. The Company further agrees to take any and all action, including the filing of any and all such documents and instruments, as may be necessary to continue that designation and appointment in full force and effect, or to appoint and maintain the appointment of another process agent located in the United States as required above, and to deliver to the Depositary a written acceptance by that agent of that appointment, for so long as any American Depositary Shares or Receipts remain outstanding or this Deposit Agreement remains in force. In the event the Company fails to maintain the designation and appointment of a process agent in the United States in full force and effect, the Company hereby waives personal service of process upon it and consents that a service of process in connection with a Proceeding may be made by certified or registered mail, return receipt requested, directed to the Company at its address last specified for notices under this Deposit Agreement, and service so made shall be deemed completed five (5) days after the same shall have been so mailed.

EACH PARTY TO THIS DEPOSIT AGREEMENT (INCLUDING, FOR AVOIDANCE OF DOUBT, EACH OWNER AND HOLDER) HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY SUIT, ACTION OR PROCEEDING AGAINST THE COMPANY AND/OR THE DEPOSITARY DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THE SHARES OR OTHER DEPOSITED SECURITIES, THE AMERICAN DEPOSITARY SHARES OR THE RECEIPTS, THIS DEPOSIT AGREEMENT OR ANY TRANSACTION CONTEMPLATED HEREIN OR THEREIN, OR THE BREACH HEREOF OR THEREOF, INCLUDING, WITHOUT LIMITATION, ANY QUESTION REGARDING EXISTENCE, VALIDITY OR TERMINATION (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY).

SECTION 7.7. Waiver of Immunities.

To the extent that the Company or any of its properties, assets or revenues may have or may hereafter become entitled to, or have attributed to it, any right of immunity, on the grounds of sovereignty or otherwise, from any legal action, suit or proceeding, from the giving of any relief in any respect thereof, from setoff or counterclaim, from the jurisdiction of any court, from service of process, from attachment upon or prior to judgment, from attachment in aid of execution or judgment, or from execution of judgment, or other legal process or proceeding for the giving of any relief or for the enforcement of any judgment, in any jurisdiction in which proceedings may at any time be commenced, with respect to its obligations, liabilities or any other matter under or arising out of or in connection with the Shares or Deposited Securities, the American Depositary Shares, the Receipts or this Deposit Agreement, the Company, to the fullest extent permitted by law, hereby irrevocably and unconditionally waives, and agrees not to plead or claim, any immunity of that kind and consents to relief and enforcement as provided above.

SECTION 7.8. Governing Law.

This Deposit Agreement and the Receipts shall be interpreted in accordance with and all rights hereunder and thereunder and provisions hereof and thereof shall be governed by the laws of the State of New York except with respect to its authorization and execution by the Company, which shall be governed by the laws of England and Wales. Notwithstanding anything contained in this Deposit Agreement or any Receipt, the rights of holders of Shares and of any other Deposited Securities, as applicable, as such, and the obligations and duties of the Company in respect of the holders of Shares and other Deposited Securities, as such, shall be governed by the laws of England and Wales.

IN WITNESS WHEREOF, ACHILLES THERAPEUTICS PLC and THE BANK OF NEW YORK MELLON have duly executed this Deposit Agreement as of the day and year first set forth above and all Owners and Holders shall become parties hereto upon acceptance by them of American Depositary Shares or any interest therein.

ACHILLES THERAPEUTICS PLC

By: /s/ Iraj Ali
Name: Iraj Ali
Title: Chief Executive Officer

THE BANK OF NEW YORK MELLON,
as Depositary

By: /s/ Robert W. Goad
Name: Robert W. Goad
Title: Managing Director

EXHIBIT A

AMERICAN DEPOSITARY SHARES
(Each American Depositary Share represents
one deposited Share)

THE BANK OF NEW YORK MELLON
AMERICAN DEPOSITARY RECEIPT
FOR ORDINARY SHARES OF
ACHILLES THERAPEUTICS PLC
(INCORPORATED UNDER THE LAWS OF ENGLAND AND WALES)

The Bank of New York Mellon, as depositary (hereinafter called the "Depositary"), hereby certifies that_____, or registered assigns IS THE OWNER OF _____

AMERICAN DEPOSITARY SHARES

representing deposited ordinary shares (herein called "Shares") of Achilles Therapeutics plc, incorporated under the laws of England and Wales (herein called the "Company"). At the date hereof, each American Depositary Share represents one Share deposited or subject to deposit under the Deposit Agreement (as such term is hereinafter defined) with a custodian for the Depositary (herein called the "Custodian") that, as of the date of the Deposit Agreement, was The Bank of New York Mellon, acting through an office located in the United Kingdom. The Depositary's Office and its principal executive office are located at 240 Greenwich Street, New York, N.Y. 10286.

THE DEPOSITARY'S OFFICE ADDRESS IS
240 GREENWICH STREET, NEW YORK, N.Y. 10286

1. THE DEPOSIT AGREEMENT.

This American Depositary Receipt is one of an issue (herein called "Receipts"), all issued and to be issued upon the terms and conditions set forth in the Deposit Agreement dated as of March 30, 2021 (herein called the "Deposit Agreement") among the Company, the Depositary, and all Owners and Holders from time to time of American Depositary Shares issued thereunder, each of whom by accepting American Depositary Shares agrees to become a party thereto and become bound by all the terms and conditions thereof. The Deposit Agreement sets forth the rights of Owners and Holders and the rights and duties of the Depositary in respect of the Shares deposited thereunder and any and all other securities, property and cash from time to time received in respect of those Shares and held thereunder (those Shares, securities, property, and cash are herein called "Deposited Securities"). Copies of the Deposit Agreement are on file at the Depositary's Office in New York City and at the office of the Custodian.

The statements made on the face and reverse of this Receipt are summaries of certain provisions of the Deposit Agreement and are qualified by and subject to the detailed provisions of the Deposit Agreement, to which reference is hereby made. Capitalized terms defined in the Deposit Agreement and not defined herein shall have the meanings set forth in the Deposit Agreement.

2. SURRENDER OF AMERICAN DEPOSITARY SHARES AND WITHDRAWAL OF SHARES.

Upon surrender of American Depositary Shares for the purpose of withdrawal of the Deposited Securities represented thereby and payment of the fee of the Depositary for the surrender of American Depositary Shares as provided in Section 5.9 of the Deposit Agreement and payment of all taxes and governmental charges payable in connection with that surrender and withdrawal of the Deposited Securities, and subject to the terms and conditions of the Deposit Agreement, the Owner of those American Depositary Shares shall be entitled to delivery (to the extent delivery can then be lawfully and practicably made), to or as instructed by that Owner, of the amount of Deposited Securities at the time represented by those American Depositary Shares, but not any money or other property as to which a record date for distribution to Owners has passed (since money or other property of that kind will be delivered or paid on the scheduled payment date to the Owner as of that record date), and except that the Depositary shall not be required to accept surrender of American Depositary Shares for the purpose of withdrawal to the extent it would require delivery of a fraction of a Deposited Security. The Depositary shall direct the Custodian with respect to delivery of Deposited Securities and may charge the surrendering Owner a fee and its expenses for giving that direction by cable (including SWIFT) or facsimile transmission. If Deposited Securities are delivered physically upon surrender of American Depositary Shares for the purpose of withdrawal, that delivery will be made at the Custodian's office, except that, at the request, risk and expense of the surrendering Owner, and for the account of that Owner, the Depositary shall direct the Custodian to forward any

cash or other property comprising, and forward a certificate or certificates, if applicable, and other proper documents of title, if any, for, the Deposited Securities represented by the surrendered American Depositary Shares to the Depositary for delivery at the Depositary's Office or to another address specified in the order received from the surrendering Owner.

3. REGISTRATION OF TRANSFER OF AMERICAN DEPOSITARY SHARES; COMBINATION AND SPLIT-UP OF RECEIPTS; INTERCHANGE OF CERTIFICATED AND UNCERTIFICATED AMERICAN DEPOSITARY SHARES.

The Depositary, subject to the terms and conditions of the Deposit Agreement, shall register a transfer of American Depositary Shares on its transfer books upon (i) in the case of certificated American Depositary Shares, surrender of the Receipt evidencing those American Depositary Shares, by the Owner or by a duly authorized attorney, properly endorsed or accompanied by proper instruments of transfer or (ii) in the case of uncertificated American Depositary Shares, receipt from the Owner of a proper instruction (including, for the avoidance of doubt, instructions through DRS and Profile as provided in Section 2.9 of that Agreement), and, in either case, duly stamped as may be required by the laws of the State of New York and of the United States of America. Upon registration of a transfer, the Depositary shall deliver the transferred American Depositary Shares to or upon the order of the person entitled thereto.

The Depositary, subject to the terms and conditions of the Deposit Agreement, shall upon surrender of a Receipt or Receipts for the purpose of effecting a split-up or combination of such Receipt or Receipts, execute and deliver a new Receipt or Receipts for any authorized number of American Depositary Shares requested, evidencing the same aggregate number of American Depositary Shares as the Receipt or Receipts surrendered.

The Depositary, upon surrender of certificated American Depositary Shares for the purpose of exchanging for uncertificated American Depositary Shares, shall cancel the Receipt evidencing those certificated American Depositary Shares and send the Owner a statement confirming that the Owner is the owner of the same number of uncertificated American Depositary Shares. The Depositary, upon receipt of a proper instruction (including, for the avoidance of doubt, instructions through DRS and Profile as provided in Section 2.9 of the Deposit Agreement) from the Owner of uncertificated American Depositary Shares for the purpose of exchanging for certificated American Depositary Shares, shall cancel those uncertificated American Depositary Shares and register and deliver to the Owner a Receipt evidencing the same number of certificated American Depositary Shares.

As a condition precedent to the delivery, registration of transfer, or surrender of any American Depositary Shares or split-up or combination of any Receipt or withdrawal of any Deposited Securities, the Depositary, the Custodian, or Registrar may require payment from the depositor of the Shares or the presenter of the Receipt or instruction for registration of transfer or surrender of American Depositary Shares not evidenced by a Receipt of a sum sufficient to reimburse it for any tax or other governmental charge and

any stock transfer or registration fee with respect thereto (including any such tax or charge and fee with respect to Shares being deposited or withdrawn) and payment of any applicable fees as provided in the Deposit Agreement, may require the production of proof satisfactory to it as to the identity and genuineness of any signature and may also require compliance with any regulations the Depositary may establish consistent with the provisions of the Deposit Agreement.

The Depositary may refuse to accept deposits of Shares for delivery of American Depositary Shares, refuse to register transfers of American Depositary Shares in particular instances, or suspend deposits of Shares or registration of transfer generally, whenever it or the Company considers it necessary or advisable to do so. The Depositary may refuse surrenders of American Depositary Shares for the purpose of withdrawal of Deposited Securities in particular instances, or may suspend surrenders for the purpose of withdrawal generally, but, notwithstanding anything to the contrary in the Deposit Agreement, only for (i) temporary delays caused by closing of the Depositary's register or the register of holders of Shares maintained by the Company or the Foreign Registrar, or the deposit of Shares, in connection with voting at a shareholders' meeting or the payment of dividends, (ii) the payment of fees, taxes and similar charges, (iii) compliance with any U.S. or foreign laws or governmental regulations relating to the American Depositary Shares or to the withdrawal of the Deposited Securities or (iv) any other reason that, at the time, is permitted under paragraph I(A)(1) of the General Instructions to Form F-6 under the Securities Act of 1933 or any successor to that provision.

The Depositary shall not knowingly accept for deposit under the Deposit Agreement any Shares that, at the time of deposit, are Restricted Securities.

4. LIABILITY OF OWNER FOR TAXES.

If any tax or other governmental charge shall become payable by the Custodian or the Depositary with respect to or in connection with any American Depositary Shares or any Deposited Securities represented by any American Depositary Shares or in connection with a transaction to which Section 4.8 of the Deposit Agreement applies, that tax or other governmental charge shall be payable by the Owner of those American Depositary Shares to the Depositary. The Depositary may refuse to register any transfer of those American Depositary Shares or any withdrawal of Deposited Securities represented by those American Depositary Shares until that payment is made, and may withhold any dividends or other distributions or the proceeds thereof, or may sell for the account of the Owner any part or all of the Deposited Securities represented by those American Depositary Shares, and may apply those dividends or other distributions or the net proceeds of any sale of that kind in payment of that tax or other governmental charge but, even after a sale of that kind, the Owner shall remain liable for any deficiency. The Depositary shall distribute any net proceeds of a sale made under Section 3.2 of the Deposit Agreement that are not used to pay taxes or governmental charges to the Owners entitled to them in accordance with Section 4.1 of the Deposit Agreement. If the number of Shares represented by each

American Depositary Share decreases as a result of a sale of Deposited Securities under Section 3.2 of the Deposit Agreement, the Depositary may call for surrender of the American Depositary Shares to be exchanged on a mandatory basis for a lesser number of American Depositary Shares and may sell American Depositary Shares to the extent necessary to avoid distributing fractions of American Depositary Shares in that exchange and distribute the net proceeds of that sale to the Owners entitled to them.

5. WARRANTIES ON DEPOSIT OF SHARES.

Every person depositing Shares under the Deposit Agreement shall be deemed thereby to represent and warrant that those Shares and each certificate therefor, if applicable, are validly issued, fully paid and nonassessable and were not issued in violation of any preemptive or similar rights of the holders of outstanding securities of the Company and that the person making that deposit is duly authorized so to do. Every depositing person shall also be deemed to represent that the Shares, at the time of deposit, are not Restricted Securities. All representations and warranties deemed made under Section 3.3 of the Deposit Agreement shall survive the deposit of Shares and delivery of American Depositary Shares.

6. FILING PROOFS, CERTIFICATES, AND OTHER INFORMATION.

Any person presenting Shares for deposit or any Owner or Holder may be required from time to time to file with the Depositary or the Custodian such proof of citizenship or residence, exchange control approval, or such information relating to the registration on the books of the Company or the Foreign Registrar, if applicable, to execute such certificates and to make such representations and warranties, as the Depositary may deem necessary or proper. The Depositary may withhold the delivery or registration of transfer of any American Depositary Shares, the distribution of any dividend or other distribution or of the proceeds thereof or the delivery of any Deposited Securities until that proof or other information is filed or those certificates are executed or those representations and warranties are made. As conditions of accepting Shares for transfer or deposit, the Depositary may require (i) any certification required by the Depositary or the Custodian in accordance with the provisions of the Deposit Agreement, (ii) a written order directing the Depositary to deliver to, or upon the written order of, the person or persons stated in that order, the number of American Depositary Shares representing those Deposited Shares, (iii) evidence satisfactory to the Depositary that those Shares have been re-registered in the books of the Company or the Foreign Registrar in the name of the Depositary, a Custodian or a nominee of the Depositary or a Custodian, (iv) evidence satisfactory to the Depositary that any necessary approval has been granted by any governmental body in each applicable jurisdiction and (v) an agreement or assignment, or other instrument satisfactory to the Depositary, that provides for the prompt transfer to the Custodian of any dividend, or right to subscribe for additional Shares or to receive other property, that any person in whose name those Shares are or have been recorded may thereafter receive upon or in respect of

those Shares, or, in lieu thereof, such agreement of indemnity or other agreement as shall be satisfactory to the Depositary.

7. CHARGES OF DEPOSITARY.

The following charges shall be incurred by any party depositing or withdrawing Shares or by any party surrendering American Depositary Shares or to whom American Depositary Shares are issued (including, without limitation, issuance pursuant to a stock dividend or stock split declared by the Company or an exchange of stock regarding the American Depositary Shares or Deposited Securities or a delivery of American Depositary Shares pursuant to Section 4.3 of the Deposit Agreement), or by Owners, as applicable: (1) taxes and other governmental charges, (2) such registration fees as may from time to time be in effect for the registration of transfers of Shares generally on the Share register of the Company or Foreign Registrar and applicable to transfers of Shares to or from the name of the Depositary or its nominee or the Custodian or its nominee on the making of deposits or withdrawals hereunder, (3) such cable (including SWIFT) and facsimile transmission fees and expenses as are expressly provided in the Deposit Agreement, (4) such expenses as are incurred by the Depositary in the conversion of foreign currency pursuant to Section 4.5 of the Deposit Agreement, (5) a fee of $5.00 or less per 100 American Depositary Shares (or portion thereof) for the delivery of American Depositary Shares pursuant to Section 2.3, 4.3 or 4.4 of the Deposit Agreement and the surrender of American Depositary Shares pursuant to Section 2.5 or 6.2 of the Deposit Agreement, (6) a fee of $.05 or less per American Depositary Share (or portion thereof) for any cash distribution made pursuant to the Deposit Agreement, including, but not limited to Sections 4.1 through 4.4 and 4.8 of the Deposit Agreement, (7) a fee for the distribution of securities pursuant to Section 4.2 of the Deposit Agreement or of rights pursuant to Section 4.4 of that Agreement (where the Depositary will not exercise or sell those rights on behalf of Owners), such fee being in an amount equal to the fee for the execution and delivery of American Depositary Shares referred to above which would have been charged as a result of the deposit of such securities under the Deposit Agreement (for purposes of this item 7 treating all such securities as if they were Shares) but which securities are instead distributed by the Depositary to Owners, (8) in addition to any fee charged under item 6, a fee of $.05 or less per American Depositary Share (or portion thereof) per annum for depositary services, which will be payable as provided in item 9 below, and (9) any other charges payable by the Depositary or the Custodian, any of the Depositary's or Custodian's agents or the agents of the Depositary's or Custodian's agents, in connection with the servicing of Shares or other Deposited Securities (which charges shall be assessed against Owners as of the date or dates set by the Depositary in accordance with Section 4.6 of the Deposit Agreement and shall be payable at the sole discretion of the Depositary by billing those Owners for those charges or by deducting those charges from one or more cash dividends or other cash distributions).

The Depositary may collect any of its fees by deduction from any cash distribution payable, or by selling a portion of any securities to be distributed, to Owners that are obligated to pay those fees.

The Depositary may own and deal in any class of securities of the Company and its affiliates and in American Depositary Shares.

From time to time, the Depositary may make payments to the Company to reimburse the Company for costs and expenses generally arising out of establishment and maintenance of the American Depositary Shares program, waive fees and expenses for services provided by the Depositary or share revenue from the fees collected from Owners or 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.

8. DISCLOSURE OF INTERESTS.

When required in order to comply with applicable laws and regulations, the rules and requirements of the Nasdaq Stock Market LLC or any other stock exchange on which the Shares or the American Depositary Shares are registered or the articles of association or similar document of the Company, the Company may from time to time request each Owner and Holder to provide to the Depositary information relating to: (a) the capacity in which it holds American Depositary Shares, (b) the identity of any Holders or other persons or entities then or previously interested in those American Depositary Shares and the nature of those interests and (c) any other matter where disclosure of such matter is required for that compliance. Each Owner and Holder agrees to provide all information known to it in response to a request made pursuant to Section 3.4 of the Deposit Agreement. Each Holder consents to the disclosure by the Depositary, the Owner or other Holder through which it holds American Depositary Shares, directly or indirectly, of all information responsive to a request made pursuant to that Section relating to that Holder that is known to that Owner or other Holder.

9. TITLE TO AMERICAN DEPOSITARY SHARES.

It is a condition of the American Depositary Shares, and every successive Owner and Holder of American Depositary Shares, by accepting or holding the same, consents and agrees that American Depositary Shares evidenced by a Receipt, when the Receipt is properly endorsed or accompanied by proper instruments of transfer, shall be transferable as certificated registered securities under the laws of the State of New York, and that American Depositary Shares not evidenced by Receipts shall be transferable as uncertificated registered securities under the laws of the State of New York. The Depositary and the Company, notwithstanding any notice to the contrary, may treat the Owner of American Depositary Shares as the absolute owner thereof for the purpose of determining the person entitled to distribution of dividends or other distributions or to any notice provided for in the Deposit Agreement and for all other purposes, and neither the

Depositary nor the Company shall have any obligation or be subject to any liability under the Deposit Agreement to any Holder of American Depositary Shares, but only to the Owner.

10. VALIDITY OF RECEIPT.

This Receipt shall not be entitled to any benefits under the Deposit Agreement or be valid or obligatory for any purpose, unless this Receipt shall have been (i) executed by the Depositary by the manual signature of a duly authorized officer of the Depositary or (ii) executed by the facsimile signature of a duly authorized officer of the Depositary and countersigned by the manual signature of a duly authorized signatory of the Depositary or the Registrar or a co-registrar.

11. REPORTS; INSPECTION OF TRANSFER BOOKS.

The Company is subject to the periodic reporting requirements of the Securities Exchange Act of 1934 and, accordingly, files certain reports with the Securities and Exchange Commission. Those reports will be available for inspection and copying through the Commission's EDGAR system or at public reference facilities maintained by the Commission in Washington, D.C.

The Depositary will make available for inspection by Owners at its Office any reports, notices and other communications, including any proxy soliciting material, received from the Company which are both (a) received by the Depositary as the holder of the Deposited Securities and (b) made generally available to the holders of those Deposited Securities by the Company. The Company shall furnish reports and communications, including any proxy soliciting material to which Section 4.9 of the Deposit Agreement applies, to the Depositary in English, to the extent such materials are required to be translated into English pursuant to any regulations of the Commission.

The Depositary will maintain a register of American Depositary Shares and transfers of American Depositary Shares, which shall be open for inspection by the Owners at the Depositary's Office during regular business hours, but only for the purpose of communicating with Owners regarding the business of the Company or a matter related to this Deposit Agreement or the American Depositary Shares.

12. DIVIDENDS AND DISTRIBUTIONS.

Whenever the Depositary receives any cash dividend or other cash distribution on Deposited Securities, the Depositary will, if at the time of receipt thereof any amounts received in a foreign currency can in the judgment of the Depositary be converted on a reasonable basis into Dollars transferable to the United States, and subject to the Deposit Agreement, convert that dividend or other cash distribution into Dollars and distribute the amount thus received (net of the fees and expenses of the Depositary as provided in Article 7 hereof and Section 5.9 of the Deposit Agreement) to the Owners entitled thereto;

provided, however, that if the Custodian or the Depositary is required to withhold and does withhold from that cash dividend or other cash distribution an amount on account of taxes or other governmental charges, the amount distributed to the Owners of the American Depositary Shares representing those Deposited Securities shall be reduced accordingly.

If a cash distribution would represent a return of all or substantially all the value of the Deposited Securities underlying American Depositary Shares, the Depositary may:

(i) require payment of or deduct the fee for surrender of American Depositary Shares (whether or not it is also requiring surrender of American Depositary Shares) as a condition of making that cash distribution; or

(ii) sell all Deposited Securities other than the subject cash distribution and add any net cash proceeds of that sale to the cash distribution, call for surrender of all those American Depositary Shares and require that surrender as a condition of making that cash distribution.

If the Depositary acts under this paragraph, that action shall also be a Termination Option Event.

Subject to the provisions of Section 4.11 and 5.9 of the Deposit Agreement, whenever the Depositary receives any distribution other than a distribution described in Section 4.1, 4.3 or 4.4 of the Deposit Agreement on Deposited Securities (but not in exchange for or in conversion or in lieu of Deposited Securities), the Depositary will cause the securities or property received by it to be distributed to the Owners entitled thereto, after deduction or upon payment of any fees and expenses of the Depositary and any taxes or other governmental charges, in any manner that the Depositary deems equitable and practicable for accomplishing that distribution (which may be a distribution of depositary shares representing the securities received); provided, however, that if in the opinion of the Depositary such distribution cannot be made proportionately among the Owners entitled thereto, or if for any other reason the Depositary, after consultation with the Company to the extent practicable, deems such distribution not to be lawful and feasible, the Depositary may adopt such other method as it may deem equitable and practicable for the purpose of effecting such distribution, including, but not limited to, the public or private sale of the securities or property thus received, or any part thereof, and distribution of the net proceeds of any such sale (net of the fees and expenses of the Depositary as provided in Article 7 hereof and Section 5.9 of the Deposit Agreement) to the Owners entitled thereto all in the manner and subject to the conditions set forth in Section 4.1 of the Deposit Agreement. The Depositary may withhold any distribution of securities under Section 4.2 of the Deposit Agreement if it has not received satisfactory assurances from the Company that the distribution does not require registration under the Securities Act of 1933. The Depositary may sell, by public or private sale, an amount of securities or other property it would otherwise distribute under this Article that is sufficient to pay its fees and expenses in respect of that distribution.

If a distribution to be made under Section 4.2 of the Deposit Agreement would represent a return of all or substantially all the value of the Deposited Securities underlying American Depositary Shares, the Depositary may:

(i) require payment of or deduct the fee for surrender of American Depositary Shares (whether or not it is also requiring surrender of American Depositary Shares) as a condition of making that distribution; or

(ii) sell all Deposited Securities other than the subject distribution and add any net cash proceeds of that sale to the distribution, call for surrender of all those American Depositary Shares and require that surrender as a condition of making that distribution.

If the Depositary acts under this paragraph, that action shall also be a Termination Option Event.

Whenever the Depositary receives any distribution consisting of a dividend in, or free distribution of, Shares, the Depositary may deliver to the Owners entitled thereto, an aggregate number of American Depositary Shares representing the amount of Shares received as that dividend or free distribution, subject to the terms and conditions of the Deposit Agreement with respect to the deposit of Shares and issuance of American Depositary Shares, including the withholding of any tax or other governmental charge as provided in Section 4.11 of the Deposit Agreement and the payment of the fees and expenses of the Depositary as provided in Article 7 hereof and Section 5.9 of the Deposit Agreement (and the Depositary may sell, by public or private sale, an amount of Shares received (or American Depositary Shares representing those Shares) sufficient to pay its fees and expenses in respect of that distribution). In lieu of delivering fractional American Depositary Shares, the Depositary may sell the amount of Shares represented by the aggregate of those fractions (or American Depositary Shares representing those Shares) and distribute the net proceeds, all in the manner and subject to the conditions described in Section 4.1of the Deposit Agreement. If and to the extent that additional American Depositary Shares are not delivered and Shares or American Depositary Shares are not sold, each American Depositary Share shall thenceforth also represent the additional Shares distributed on the Deposited Securities represented thereby.

If the Company declares a distribution in which holders of Deposited Securities have a right to elect whether to receive cash, Shares or other securities or a combination of those things, or a right to elect to have a distribution sold on their behalf, the Depositary may, after consultation with the Company, make that right of election available for exercise by Owners in any manner the Depositary considers to be lawful and practical. As a condition of making a distribution election right available to Owners, the Depositary may require satisfactory assurances from the Company that doing so does not require registration of any securities under the Securities Act of 1933 that has not been effected.

If the Depositary determines that any distribution received or to be made by the Depositary (including Shares and rights to subscribe therefor) is subject to any tax or other governmental charge that the Depositary is obligated to withhold, the Depositary may sell, by public or private sale, all or a portion of the distributed property (including Shares and rights to subscribe therefor) in the amounts and manner the Depositary deems necessary and practicable to pay those taxes or charges, and the Depositary shall distribute the net proceeds of that sale, after deduction of those taxes or charges, to the Owners entitled thereto in proportion to the number of American Depositary Shares held by them respectively.

Each Owner and Holder agrees to indemnify the Company, the Depositary, the Custodian and their respective directors, employees, agents and affiliates for, and hold each of them harmless against, any claim by any governmental authority with respect to taxes, additions to tax, penalties or interest arising out of any refund of taxes, reduced withholding at source or other tax benefit received by it. Services for Owners and Holders that may permit them to obtain reduced rates of tax withholding at source or reclaim excess tax withheld, and the fees and costs associated with using services of that kind, are not provided under, and are outside the scope of, the Deposit Agreement.

13. RIGHTS.

(a) If rights are granted to the Depositary in respect of deposited Shares to purchase additional Shares or other securities, the Company and the Depositary shall endeavor to consult as to the actions, if any, the Depositary should take in connection with that grant of rights. The Depositary may, to the extent deemed by it to be lawful and practical (i) if requested in writing by the Company, grant to all or certain Owners rights to instruct the Depositary to purchase the securities to which the rights relate and deliver those securities or American Depositary Shares representing those securities to Owners, (ii) if requested in writing by the Company, deliver the rights to or to the order of certain Owners, or (iii) sell the rights to the extent practicable and distribute the net proceeds of that sale to Owners entitled to those proceeds. To the extent rights are not exercised, delivered or disposed of under (i), (ii) or (iii) above, the Depositary shall permit the rights to lapse unexercised.

(b) If the Depositary will act under (a)(i) above, the Company and the Depositary will enter into a separate agreement setting forth the conditions and procedures applicable to the particular offering. Upon instruction from an applicable Owner in the form the Depositary specified and upon payment by that Owner to the Depositary of an amount equal to the purchase price of the securities to be received upon the exercise of the rights, the Depositary shall, on behalf of that Owner, exercise the rights and purchase the securities. The purchased securities shall be delivered to, or as instructed by, the Depositary. The Depositary shall (i) deposit the purchased Shares under the Deposit Agreement and deliver American Depositary Shares representing those Shares to that Owner or (ii) deliver or cause the purchased Shares or other securities to be delivered to or

to the order of that Owner. The Depositary will not act under (a)(i) above unless the offer and sale of the securities to which the rights relate are registered under the Securities Act of 1933 or the Depositary has received an opinion of United States counsel that is satisfactory to it to the effect that those securities may be sold and delivered to the applicable Owners without registration under the Securities Act of 1933.

(c) If the Depositary will act under (a)(ii) above, the Company and the Depositary will enter into a separate agreement setting forth the conditions and procedures applicable to the particular offering. Upon (i) the request of an applicable Owner to deliver the rights allocable to the American Depositary Shares of that Owner to an account specified by that Owner to which the rights can be delivered and (ii) receipt of such documents as the Company and the Depositary agreed to require to comply with applicable law, the Depositary will deliver those rights as requested by that Owner.

(d) If the Depositary will act under (a)(iii) above, the Depositary will use reasonable efforts to sell the rights in proportion to the number of American Depositary Shares held by the applicable Owners and pay the net proceeds to the Owners otherwise entitled to the rights that were sold, upon an averaged or other practical basis without regard to any distinctions among such Owners because of exchange restrictions or the date of delivery of any American Depositary Shares or otherwise.

(e) Payment or deduction of the fees of the Depositary as provided in Section 5.9 of the Deposit Agreement and payment or deduction of the expenses of the Depositary and any applicable taxes or other governmental charges shall be conditions of any delivery of securities or payment of cash proceeds under Section 4.4 of that Agreement.

(f) The Depositary shall not be responsible for any failure to determine that it may be lawful or feasible to make rights available to or exercise rights on behalf of Owners in general or any Owner in particular, or to sell rights.

14. CONVERSION OF FOREIGN CURRENCY.

Whenever the Depositary or the Custodian receives foreign currency, by way of dividends or other distributions or the net proceeds from the sale of securities, property or rights, and if at the time of the receipt thereof the foreign currency so received can in the judgment of the Depositary be converted on a reasonable basis into Dollars and the resulting Dollars transferred to the United States, the Depositary or one of its agents or affiliates or the Custodian shall convert or cause to be converted by sale or in any other manner that it may determine that foreign currency into Dollars, and those Dollars shall be distributed to the Owners entitled thereto. A cash distribution may be made upon an averaged or other practicable basis without regard to any distinctions among Owners based on exchange restrictions, the date of delivery of any American Depositary Shares or otherwise and shall be net of any expenses of conversion into Dollars incurred by the Depositary as provided in Section 5.9 of the Deposit Agreement.

If a conversion of foreign currency or the repatriation or distribution of Dollars can be effected only with the approval or license of any government or agency thereof, the Depositary may, but will not be required to, file an application for that approval or license.

If the Depositary determines that in its judgment any foreign currency received by the Depositary or the Custodian is not convertible on a reasonable basis into Dollars transferable to the United States, or if any approval or license of any government or agency thereof that is required for such conversion is not filed or sought by the Depositary or is not obtained within a reasonable period as determined by the Depositary, the Depositary may distribute the foreign currency received by the Depositary to, or in its discretion may hold such foreign currency uninvested and without liability for interest thereon for the respective accounts of, the Owners entitled to receive the same.

If any conversion of foreign currency, in whole or in part, cannot be effected for distribution to some of the Owners entitled thereto, the Depositary may in its discretion make that conversion and distribution in Dollars to the extent practicable and permissible to the Owners entitled thereto and may distribute the balance of the foreign currency received by the Depositary to, or hold that balance uninvested and without liability for interest thereon for the account of, the Owners entitled thereto.

The Depositary may convert currency itself or through any of its affiliates, or the Custodian or the Company may convert currency and pay Dollars to the Depositary. Where the Depositary converts currency itself or through any of its affiliates, the Depositary 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 by it or its affiliate in any currency conversion under the Deposit Agreement will be the most favorable rate that could be obtained at the time or that the method by which that rate will be determined will be the most favorable to Owners, subject to the Depositary's obligations under Section 5.3 of that Agreement. The methodology used to determine exchange rates used in currency conversions made by the Depositary is available upon request. Where the Custodian converts currency, the Custodian has no obligation to obtain the most favorable rate that could be obtained at the time or to ensure that the method by which that rate will be determined will be the most favorable to Owners, and the Depositary makes no representation that the rate is the most favorable rate and will not be liable for any direct or indirect losses associated with the rate. In certain instances, the Depositary may receive dividends or other distributions from the Company in Dollars that represent the proceeds of a conversion of foreign currency or translation from foreign currency at a rate that was obtained or determined by or on behalf of the Company and, in such cases, the Depositary will not engage in, or be responsible for, any foreign currency transactions and neither it nor the Company makes any

representation that the rate obtained or determined by the Company is the most favorable rate and neither it nor the Company will be liable for any direct or indirect losses associated with the rate.

15. RECORD DATES.

Whenever a cash dividend, cash distribution or any other distribution is made on Deposited Securities or rights to purchase Shares or other securities are issued with respect to Deposited Securities (which rights will be delivered to or exercised or sold on behalf of Owners in accordance with Section 4.4 of the Deposit Agreement) or the Depositary receives notice that a distribution or issuance of that kind will be made, or whenever the Depositary receives notice that a meeting of holders of Shares will be held in respect of which the Company has requested the Depositary to send a notice under Section 4.7 of the Deposit Agreement, or whenever the Depositary will assess a fee or charge against the Owners, or whenever the Depositary causes a change in the number of Shares that are represented by each American Depositary Share, or whenever the Depositary otherwise finds it necessary or convenient, the Depositary shall fix a record date, which shall be the same as, or as near as practicable to, any corresponding record date set by the Company with respect to Shares, (a) for the determination of the Owners (i) who shall be entitled to receive the benefit of that dividend or other distribution or those rights, (ii) who shall be entitled to give instructions for the exercise of voting rights at that meeting, (iii) who shall be responsible for that fee or charge or (iv) for any other purpose for which the record date was set, or (b) on or after which each American Depositary Share will represent the changed number of Shares. Subject to the provisions of Sections 4.1 through 4.5 of the Deposit Agreement and to the other terms and conditions of the Deposit Agreement, the Owners on a record date fixed by the Depositary shall be entitled to receive the amount distributable by the Depositary with respect to that dividend or other distribution or those rights or the net proceeds of sale thereof in proportion to the number of American Depositary Shares held by them respectively, to give voting instructions or to act in respect of the other matter for which that record date was fixed, or be responsible for that fee or charge, as the case may be.

16. VOTING OF DEPOSITED SHARES.

(a) Upon receipt of notice of any meeting of holders of Shares at which holders of Shares will be entitled to vote, if requested in writing by the Company, the Depositary shall, as soon as practicable thereafter, Disseminate to the Owners a notice, the form of which shall be in the sole discretion of the Depositary, that shall contain (i) the information contained in the notice of meeting received by the Depositary, (ii) a statement that the Owners as of the close of business on a specified record date will be entitled, subject to any applicable provision of the laws of England and Wales and of the articles of association or similar documents of the Company, to instruct the Depositary as to the exercise of the voting rights pertaining to the amount of Shares represented by their respective American Depositary Shares (iii) a statement as to the manner in which those

instructions may be given, including an express indication that instructions may be deemed given in accordance with the last sentence of paragraph (b) below, if no instruction is received, to the Depositary to give a discretionary proxy to a person designated by the Company and (iv) the last date on which the Depositary will accept instructions (the "Instruction Cutoff Date").

(b) Upon the written request of an Owner of American Depositary Shares, as of the date of the request or, if a record date was specified by the Depositary, as of that record date, received on or before any Instruction Cutoff Date established by the Depositary, the Depositary may, and if the Depositary sent a notice under the preceding paragraph shall, endeavor, in so far as practicable, to vote or cause to be voted the amount of deposited Shares represented by those American Depositary Shares in accordance with the instructions set forth in that request. The Depositary shall not vote or attempt to exercise the right to vote that attaches to the deposited Shares other than in accordance with instructions given by Owners and received by the Depositary or as provided in the following sentence. If

(i) the Company instructed the Depositary to Disseminate a notice under paragraph (a) above and complied with paragraph (d) below,

(ii) no instructions are received by the Depositary from an Owner with respect to a matter and an amount of American Depositary Shares of that Owner on or before the Instruction Cutoff Date and

(iii) the Depositary has received from the Company, by the business day following the Instruction Cutoff Date, a written confirmation that, as of the Instruction Cutoff Date, (x) the Company wishes a proxy to be given under this sentence, (y) the Company reasonably does not know of any substantial opposition to the matters and (z) the matters are not materially adverse to the interests of shareholders,

then, the Depositary shall deem that Owner to have instructed the Depositary to give a discretionary proxy to a person designated by the Company with respect to that matter and the amount of deposited Shares represented by that amount of American Depositary Shares and the Depositary shall give a discretionary proxy to a person designated by the Company to vote that amount of deposited Shares as to that matter.

(c) There can be no assurance that Owners generally or any Owner in particular will receive the notice described in paragraph (a) above in time to enable Owners to give instructions to the Depositary prior to the Instruction Cutoff Date.

(d) If the Company will request the Depositary to Disseminate a notice under paragraph (a) above, the Company shall give the Depositary notice of the meeting, details concerning the matters to be voted upon and copies of materials to be made available to holders of Shares in connection with the meeting not less than 45 days prior to the meeting date.

Notwithstanding anything in Section 4.7 of the Deposit Agreement to the contrary, the Depositary and the Company may modify, amend or adopt additional procedures relating to voting of deposited Shares from time to time as they determine may be necessary to comply with applicable laws and regulations.

17. TENDER AND EXCHANGE OFFERS; REDEMPTION, REPLACEMENT OR CANCELLATION OF DEPOSITED SECURITIES.

(a) The Depositary shall not tender any Deposited Securities in response to any voluntary cash tender offer, exchange offer or similar offer made to holders of Deposited Securities (a "Voluntary Offer"), except when instructed in writing to do so by an Owner surrendering American Depositary Shares and subject to any conditions or procedures the Depositary may require.

(b) If the Depositary receives a written notice that Deposited Securities have been redeemed for cash or otherwise purchased for cash in a transaction that is mandatory and binding on the Depositary as a holder of those Deposited Securities (a "Redemption"), the Depositary, at the expense of the Company, shall (i) if required, surrender Deposited Securities that have been redeemed to the issuer of those securities or its agent on the redemption date, (ii) Disseminate a notice to Owners (A) notifying them of that Redemption, (B) calling for surrender of a corresponding number of American Depositary Shares and (C) notifying them that the called American Depositary Shares have been converted into a right only to receive the money received by the Depositary upon that Redemption and those net proceeds shall be the Deposited Securities to which Owners of those converted American Depositary Shares shall be entitled upon surrenders of those American Depositary Shares in accordance with Section 2.5 or 6.2 of the Deposit Agreement and (iii) distribute the money received upon that Redemption to the Owners entitled to it upon surrender by them of called American Depositary Shares in accordance with Section 2.5 of that Agreement (and, for the avoidance of doubt, Owners shall not be entitled to receive that money under Section 4.1 of that Agreement). If the Redemption affects less than all the Deposited Securities, the Depositary shall call for surrender a corresponding portion of the outstanding American Depositary Shares and only those American Depositary Shares will automatically be converted into a right to receive the net proceeds of the Redemption. The Depositary shall allocate the American Depositary Shares converted under the preceding sentence among the Owners pro-rata to their respective holdings of American Depositary Shares immediately prior to the Redemption, except that the allocations may be adjusted so that no fraction of a converted American Depositary Share is allocated to any Owner. A Redemption of all or substantially all of the Deposited Securities shall be a Termination Option Event.

(c) If the Depositary is notified of or there occurs any change in nominal value or any subdivision, combination or any other reclassification of the Deposited Securities or any recapitalization, reorganization, sale of assets substantially as an entirety, merger or consolidation affecting the issuer of the Deposited Securities or to which it is a

party that is mandatory and binding on the Depositary as a holder of Deposited Securities and, as a result, securities or other property have been or will be delivered in exchange, conversion, replacement or in lieu of, Deposited Securities (a "Replacement"), the Depositary shall, if required, surrender the old Deposited Securities affected by that Replacement of Shares and hold, as new Deposited Securities under the Deposit Agreement, the new securities or other property delivered to it in that Replacement. However, the Depositary may elect to sell those new Deposited Securities if in the opinion of the Depositary, after consultation with the Company to the extent practicable, it is not lawful or not practical for it to hold those new Deposited Securities under the Deposit Agreement because those new Deposited Securities may not be distributed to Owners without registration under the Securities Act of 1933 or for any other reason, at public or private sale, at such places and on such terms as it deems proper and proceed as if those new Deposited Securities had been Redeemed under paragraph (b) above. A Replacement shall be a Termination Option Event.

(d) In the case of a Replacement where the new Deposited Securities will continue to be held under the Deposit Agreement, the Depositary may, after consultation with the Company to the extent practicable, call for the surrender of outstanding Receipts to be exchanged for new Receipts specifically describing the new Deposited Securities and the number of those new Deposited Securities represented by each American Depositary Share. If the number of Shares represented by each American Depositary Share decreases as a result of a Replacement, the Depositary may call for surrender of the American Depositary Shares to be exchanged on a mandatory basis for a lesser number of American Depositary Shares and may sell American Depositary Shares to the extent necessary to avoid distributing fractions of American Depositary Shares in that exchange and distribute the net proceeds of that sale to the Owners entitled to them.

(e) If there are no Deposited Securities with respect to American Depositary Shares, including if the Deposited Securities are cancelled, or the Deposited Securities with respect to American Depositary Shares become apparently worthless, the Depositary may call for surrender of those American Depositary Shares or may cancel those American Depositary Shares, upon notice to Owners, and that condition shall be a Termination Option Event.

18. LIABILITY OF THE COMPANY AND DEPOSITARY.

Neither the Depositary nor the Company nor any of their respective directors, employees, agents or affiliates shall incur any liability to any Owner or Holder:

(i) if by reason of (A) any provision of any present or future law or regulation or other act of the government of the United States, any State of the United States or any other state or jurisdiction, or of any governmental or regulatory authority or stock exchange; (B) (in the case of the Depositary only) any provision, present or future, of the articles of association or similar document of the Company, or by reason of any provision of any securities issued or distributed by the Company, or any offering or

distribution thereof; or (C) any event or circumstance, whether natural or caused by a person or persons, that is beyond the ability of the Depositary or the Company, as the case may be, to prevent or counteract by reasonable care or effort (including, but not limited to earthquakes, floods, severe storms, fires, explosions, war, terrorism, civil unrest, labor disputes, criminal acts or outbreaks of infectious disease; interruptions or malfunctions of utility services, Internet or other communications lines or systems; unauthorized access to or attacks on computer systems or websites; or other failures or malfunctions of computer hardware or software or other systems or equipment), the Depositary or the Company is, directly or indirectly, prevented from, forbidden to or delayed in, or could be subject to any civil or criminal penalty on account of doing or performing and therefore does not do or perform, any act or thing that, by the terms of the Deposit Agreement or the Deposited Securities, it is provided shall be done or performed;

(ii) for any exercise of, or failure to exercise, any discretion provided for in the Deposit Agreement (including any determination by the Depositary to take, or not take, any action that the Deposit Agreement provides the Depositary may take);

(iii) for the inability of any Owner or Holder to benefit from any distribution, offering, right or other benefit that is made available to holders of Deposited Securities but is not, under the terms of the Deposit Agreement, made available to Owners or Holders; or

(iv) for any special, consequential or punitive damages for any breach of the terms of the Deposit Agreement.

Where, by the terms of a distribution to which Section 4.1, 4.2 or 4.3 of the Deposit Agreement applies, or an offering to which Section 4.4 of that Agreement applies, or for any other reason, that distribution or offering may not be made available to Owners, and the Depositary may not dispose of that distribution or offering on behalf of Owners and make the net proceeds available to Owners, then the Depositary shall not make that distribution or offering available to Owners, and shall allow any rights, if applicable, to lapse.

Neither the Company nor the Depositary assumes any obligation or shall be subject to any liability under the Deposit Agreement to Owners or Holders, except that they agree to perform their obligations specifically set forth in the Deposit Agreement without negligence or bad faith. The Depositary shall not be a fiduciary or have any fiduciary duty to Owners or Holders. The Depositary shall not be subject to any liability with respect to the validity or worth of the Deposited Securities. Neither the Depositary nor the Company shall be under any obligation to appear in, prosecute or defend any action, suit, or other proceeding in respect of any Deposited Securities or in respect of the American Depositary Shares, on behalf of any Owner or Holder or other person. Neither the Depositary nor the Company shall be liable for any action or non-action by it in reliance upon the advice of or information from legal counsel, accountants, any person presenting Shares for deposit, any Owner or Holder, or any other person believed by it in good faith to be competent to give

such advice or information. Each of the Depositary and the Company may rely, and shall be protected in relying upon, any written notice, request, direction or other document believed by it to be genuine and to have been signed or presented by the proper party or parties. The Depositary shall not be liable for any acts or omissions made by a successor depositary whether in connection with a previous act or omission of the Depositary or in connection with a matter arising wholly after the removal or resignation of the Depositary, provided that in connection with the issue out of which such potential liability arises, the Depositary performed its obligations without negligence or bad faith while it acted as Depositary. The Depositary shall not be liable for the acts or omissions of any securities depository, clearing agency or settlement system in connection with or arising out of book-entry settlement of American Depositary Shares or Deposited Securities or otherwise. In the absence of bad faith on its part, the Depositary shall not be responsible for any failure to carry out any instructions to vote any of the Deposited Securities or for the manner in which any such vote is cast or the effect of any such vote. The Depositary shall have no duty to make any determination or provide any information as to the tax status of the Company or any liability for any tax consequences that may be incurred by Owners or Holders as a result of owning or holding American Depositary Shares. The Depositary shall not be liable for the inability or failure of an Owner or 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. No disclaimer of liability under the United States federal securities laws is intended by any provision of the Deposit Agreement.

19. RESIGNATION AND REMOVAL OF THE DEPOSITARY; APPOINTMENT OF SUCCESSOR CUSTODIAN.

The Depositary may at any time resign as Depositary under the Deposit Agreement by written notice of its election so to do delivered to the Company, to become effective upon the appointment of a successor depositary and its acceptance of such appointment as provided in the Deposit Agreement. The Depositary may at any time be removed by the Company by 90 days' prior written notice of that removal, to become effective upon the later of (i) the 90th day after delivery of the notice to the Depositary and (ii) the appointment of a successor depositary and its acceptance of its appointment as provided in the Deposit Agreement. The Depositary in its discretion may at any time appoint a substitute or additional custodian or custodians.

20. AMENDMENT.

The form of the Receipts and any provisions of the Deposit Agreement may at any time and from time to time be amended by agreement between the Company and the Depositary without the consent of Owners or Holders in any respect which they may deem necessary or desirable. Any amendment that would impose or increase any fees or charges (other than taxes and other governmental charges, registration fees, cable (including SWIFT) or facsimile transmission costs, delivery costs or other such expenses), or that would otherwise prejudice any substantial existing right of Owners, shall, however, not

become effective as to outstanding American Depositary Shares until the expiration of 30 days after notice of that amendment has been Disseminated to the Owners of outstanding American Depositary Shares. Every Owner and Holder, at the time any amendment so becomes effective, shall be deemed, by continuing to hold American Depositary Shares or any interest therein, to consent and agree to that amendment and to be bound by the Deposit Agreement as amended thereby. Upon the effectiveness of an amendment to the form of Receipt, including a change in the number of Shares represented by each American Depositary Share, the Depositary may call for surrender of Receipts to be replaced with new Receipts in the amended form or call for surrender of American Depositary Shares to effect that change of ratio. In no event shall any amendment impair the right of the Owner to surrender American Depositary Shares and receive delivery of the Deposited Securities represented thereby, except in order to comply with mandatory provisions of applicable law.

21. TERMINATION OF DEPOSIT AGREEMENT.

(a) The Company may initiate termination of the Deposit Agreement by notice to the Depositary. The Depositary may initiate termination of the Deposit Agreement if (i) at any time 60 days shall have expired after the Depositary delivered to the Company a written resignation notice and a successor depositary has not been appointed and accepted its appointment as provided in Section 5.4 of that Agreement or (ii) a Termination Option Event has occurred. If termination of the Deposit Agreement is initiated, the Depositary shall Disseminate a notice of termination to the Owners of all American Depositary Shares then outstanding setting a date for termination (the "Termination Date"), which shall be at least 90 days after the date of that notice, and the Deposit Agreement shall terminate on that Termination Date.

(b) After the Termination Date, the Company shall be discharged from all obligations under the Deposit Agreement except for its obligations to the Depositary under Sections 5.8 and 5.9 of that Agreement.

(c) At any time after the Termination Date, the Depositary may sell the Deposited Securities then held under the Deposit Agreement and may thereafter hold uninvested the net proceeds of any such sale, together with any other cash then held by it hereunder, unsegregated and without liability for interest, for the pro rata benefit of the Owners of American Depositary Shares that remain outstanding, and those Owners will be general creditors of the Depositary with respect to those net proceeds and that other cash. After making that sale, the Depositary shall be discharged from all obligations under the Deposit Agreement, except (i) to account for the net proceeds and other cash (after deducting, in each case, the fee of the Depositary for the surrender of American Depositary Shares, any expenses for the account of the Owner of such American Depositary Shares in accordance with the terms and conditions of the Deposit Agreement and any applicable taxes or governmental charges) and (ii) for its obligations under Section 5.8 of that Agreement and (iii) to act as provided in paragraph (d) below.

(d) After the Termination Date, the Depositary shall continue to receive dividends and other distributions pertaining to Deposited Securities (that have not been sold), may sell rights and other property as provided in the Deposit Agreement and shall deliver Deposited Securities (or sale proceeds) upon surrender of American Depositary Shares (after payment or upon deduction, in each case, of the fee of the Depositary for the surrender of American Depositary Shares, any expenses for the account of the Owner of those American Depositary Shares in accordance with the terms and conditions of the Deposit Agreement and any applicable taxes or governmental charges). After the Termination Date, the Depositary shall not accept deposits of Shares or deliver American Depositary Shares. After the Termination Date, (i) the Depositary may refuse to accept surrenders of American Depositary Shares for the purpose of withdrawal of Deposited Securities (that have not been sold) or reverse previously accepted surrenders of that kind that have not settled if in its judgment the requested withdrawal would interfere with its efforts to sell the Deposited Securities, (ii) the Depositary will not be required to deliver cash proceeds of the sale of Deposited Securities until all Deposited Securities have been sold and (iii) the Depositary may discontinue the registration of transfers of American Depositary Shares and suspend the distribution of dividends and other distributions on Deposited Securities to the Owners and need not give any further notices or perform any further acts under the Deposit Agreement except as provided in Section 6.2 of that Agreement.

22. DTC DIRECT REGISTRATION SYSTEM AND PROFILE MODIFICATION SYSTEM.

(a) Notwithstanding the provisions of Section 2.4 of the Deposit Agreement, the parties acknowledge that DTC's Direct Registration System ("DRS") and Profile Modification System ("Profile") apply to the American Depositary Shares upon acceptance thereof to DRS by DTC. DRS is the system administered by DTC that facilitates interchange between registered holding of uncertificated securities and holding of security entitlements in those securities through DTC and a DTC participant. Profile is a required feature of DRS that allows a DTC participant, claiming to act on behalf of an Owner of American Depositary Shares, to direct the Depositary to register a transfer of those American Depositary Shares to DTC or its nominee and to deliver those American Depositary Shares to the DTC account of that DTC participant without receipt by the Depositary of prior authorization from the Owner to register that transfer.

(b) In connection with DRS/Profile, the parties acknowledge that the Depositary will not determine whether the DTC participant that is claiming to be acting on behalf of an Owner in requesting registration of transfer and delivery as described in paragraph (a) above has the actual authority to act on behalf of that Owner (notwithstanding any requirements under the Uniform Commercial Code). For the avoidance of doubt, the provisions of Sections 5.3 and 5.8 of the Deposit Agreement apply to the matters arising from the use of the DRS/Profile. The parties agree that the Depositary's reliance on and compliance with instructions received by the Depositary through the DRS/Profile system

and otherwise in accordance with the Deposit Agreement, shall not constitute negligence or bad faith on the part of the Depositary.

23. APPOINTMENT OF AGENT FOR SERVICE OF PROCESS; SUBMISSION TO JURISDICTION; JURY TRIAL WAIVER; WAIVER OF IMMUNITIES.

The Company has (i) appointed Cogency Global Inc., 122 East 42nd Street, 18th Floor, New York, NY 10168 as the Company's authorized agent in the United States upon which process may be served in any suit or proceeding arising out of or relating to the Shares or Deposited Securities, the American Depositary Shares, the Receipts or this Agreement, (ii) consented and submitted to the jurisdiction of any state or federal court in the State of New York in which any such suit or proceeding may be instituted, and (iii) agreed that service of process upon said authorized agent shall be deemed in every respect effective service of process upon the Company in any such suit or proceeding.

EACH PARTY TO THE DEPOSIT AGREEMENT (INCLUDING, FOR AVOIDANCE OF DOUBT, EACH OWNER AND HOLDER) THEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY SUIT, ACTION OR PROCEEDING AGAINST THE COMPANY AND/OR THE DEPOSITARY DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THE SHARES OR OTHER DEPOSITED SECURITIES, THE AMERICAN DEPOSITARY SHARES OR THE RECEIPTS, THE DEPOSIT AGREEMENT OR ANY TRANSACTION CONTEMPLATED HEREIN OR THEREIN, OR THE BREACH HEREOF OR THEREOF, INCLUDING, WITHOUT LIMITATION, ANY QUESTION REGARDING EXISTENCE, VALIDITY OR TERMINATION (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY).

To the extent that the Company or any of its properties, assets or revenues may have or hereafter become entitled to, or have attributed to it, any right of immunity, on the grounds of sovereignty or otherwise, from any legal action, suit or proceeding, from the giving of any relief in any respect thereof, from setoff or counterclaim, from the jurisdiction of any court, from service of process, from attachment upon or prior to judgment, from attachment in aid of execution or judgment, or other legal process or proceeding for the giving of any relief or for the enforcement of any judgment, in any jurisdiction in which proceedings may at any time be commenced, with respect to its obligations, liabilities or any other matter under or arising out of or in connection with the Shares or Deposited Securities, the American Depositary Shares, the Receipts or the Deposit Agreement, the Company, to the fullest extent permitted by law, hereby irrevocably and unconditionally waives, and agrees not to plead or claim, any such immunity and consents to such relief and enforcement.

Exhibit 2.3

DESCRIPTION OF SECURITIES

As of December 31, 2021 Achilles Therapeutics plc (the "Company," "Achilles," "we," "us," or "our") had the following series of securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"):

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Ordinary shares, nominal value £0.001 per share	**ACHL**	**Nasdaq Global Select Market**
American Depositary Shares, each representing one share	**ACHL**	**Nasdaq Global Select Market**

American Depositary Shares ("ADSs"), each representing one ordinary share of Achilles ("Ordinary Shares"), are listed and traded on the Nasdaq Global Select Market ("Nasdaq") and, in connection with this listing (but not for trading), the Ordinary Shares are registered under Section 12(b) of the Exchange Act. This exhibit contains a description of the rights of the holders of (i) Ordinary Shares and (ii) ADSs. Shares underlying the ADSs are held by The Bank of New York Mellon, as depositary, and holders of ADSs are not to be treated as holders of the Ordinary Shares.

Capital terms used but not defined herein have the meanings given to them in the Company's Annual Report on Form 20-F for the fiscal year ended December 31, 2021 (the "Annual Report").

Ordinary Shares

The following description of Ordinary Shares is only a summary. It is subject to and qualified in its entirety by our articles of association (our "Articles"), which are incorporated by reference as an exhibit to our Annual Report, and by the Companies Act 1985, the Companies Act 2006 and any other applicable English law concerning companies, as amended from time to time.

Transfer of 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) (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).

Rights of the Ordinary Shares

The rights attaching to our Ordinary Shares are detailed in our Articles. Our Articles provide that 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.

Preemptive Rights

Holders of our Ordinary Shares do not have preemptive rights.

Dividend Rights

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.

Voting Rights

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.

General Meetings of Shareholders

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.

Right to Share in Our Profits

Pursuant to our Articles, our shareholders are entitled to participate in our profits only by payment of dividends. Our board of directors may from time to time determine to pay dividends to the shareholders. However, any such dividend may only be payable in accordance with the requirements set out in the Companies Act 2006 described above.

Rights to Share in the Surplus in the Event of Winding Up

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.

No Redemption Provision for Ordinary Shares

There are no redemption provisions in our Articles in relation to Ordinary Shares. Under our Articles, shares may be issued and allotted, which are liable to be redeemed. Under the Companies Act 2006, redeemable preference shares may only be redeemed if those preference shares are fully paid-up and payment in satisfaction of redemption is out of profits or the proceeds of a new issue of shares made for the purposes of the redemption.

Variation or Cancellation of Share 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.

Limitations on the Rights to Own Shares

Neither English law nor our Articles restrict in any way the ownership or voting of our shares by non-residents.

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 of 1933, as amended (the "Securities Act"), and the Securities Exchange Act of 1934, as amended (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. Our Articles 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.

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 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.

American Depositary Shares

The Bank of New York Mellon, as depositary, registers and delivers ADSs. Each ADS represents one Ordinary Share (or a right to receive 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 may 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 are administered and its principal executive office are located at 240 Greenwich Street, New York, New York 10286.

You may hold ADSs either (A) directly (i) by having an 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 ("DTC"). If you hold ADSs directly, you are a registered ADS holder, or 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 receive statements from the depositary confirming their holdings.

As an ADS holder, you are not treated as one of our shareholders and you do not have shareholder rights. English law governs shareholder rights. The depositary is the holder of the shares underlying your ADSs. As a registered holder of ADSs, you have ADS holder rights. The 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, which are Exhibits 2.1 and 2.2, respectively, to our Annual Report. 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

The depositary has agreed to pay or distribute to ADS holders the cash dividends or other distributions it or the custodian receives on shares or other deposited securities, upon payment or deduction of its fees and expenses. You 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 "Item 10. Taxation" in our Annual Report. 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

ADSs Issuance

The depositary delivers 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 registers the appropriate number of ADSs in the names you request and delivers the ADSs to or upon the order of the person or persons that made the deposit.

Withdrawal

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.

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

ADS holders may instruct the depositary how to vote the number of deposited shares their ADSs represent. If we request the depositary to solicit your voting instructions (and we are not required to do so), the depositary will notify you of 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. 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.

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.

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

Deposit Agreement Amendment

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*.

Deposit Agreement Termination

The depositary will initiate termination of the deposit agreement if we instruct it to do so. The depositary may initiate termination of the deposit agreement if

- 60 days have passed since the depositary told us it wants to resign but a successor depositary has not been appointed and accepted its appointment;
- we delist the ADSs from an exchange in the United States on which they were listed and do not list the ADSs on another exchange in the United States or make arrangements for trading of ADSs on the U.S. over-the-counter market;
- we delist our shares from an exchange outside the United States on which they were listed and do not list the shares on another exchange outside the United States;
- the depositary has reason to believe the ADSs have become, or will become, ineligible for registration on Form F-6 under the Securities Act;
- we appear to be insolvent or enter insolvency proceedings;
- all or substantially all the value of the deposited securities has been distributed either in cash or in the form of securities;
- there are no deposited securities underlying the ADSs or the underlying deposited securities have become apparently worthless; or
- there has been a replacement of deposited securities.

If the deposit agreement will terminate, the depositary will notify ADS holders at least 90 days before the termination date. At any time after the termination date, the depositary may sell the deposited securities. After that, the depositary will hold the money it received on the sale, as well as any other cash it is holding under the deposit

agreement, unsegregated and without liability for interest, for the pro rata benefit of the ADS holders that have not surrendered their ADSs. Normally, the depositary will sell as soon as practicable after the termination date.

After the termination date and before the depositary sells, ADS holders can still surrender their ADSs and receive delivery of deposited securities, except that the depositary may refuse to accept a surrender for the purpose of withdrawing deposited securities or reverse previously accepted surrenders of that kind that have not settled if it would interfere with the selling process. The depositary may refuse to accept a surrender for the purpose of withdrawing sale proceeds until all the deposited securities have been sold. The depositary will 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 is not a fiduciary nor has 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 delivers or registers a transfer of ADSs, makes a distribution on ADSs, or permits 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.

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, applies 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 does 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 does 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 maintains ADS holder records at its depositary office. The depositary makes 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 are not, by agreeing to the terms of the deposit agreement, deemed to have waived our or the depositary's compliance with U.S. federal securities laws or the rules and regulations promulgated thereunder.

Relevant UK Laws and Regulations

Provisions Affecting Any Change of Control

Takeovers of public companies in the UK (or the Channel Islands or the Isle of Man) are regulated by the Takeover Code. We believe that, as of the date hereof, 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.

Ownership Threshold

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 (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).

Changes in 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.

Differences Between the Law of Different Jurisdictions

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 resolution appointing two or more directors may be tabled at that meeting.	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 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 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.	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.

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 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.	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.

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 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.	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 •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 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.	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 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 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.

List of Subsidiaries **Exhibit 8.1**

Company	Country of incorporation	Percentage ownership and voting interest
Achilles Therapeutics Holdings Limited	England and Wales	100.00%
Achilles Therapeutics UK Limited	England and Wales	100.00%
Achilles Therapeutics US, Inc.	United States	100.00%

Exhibit 12.1

CERTIFICATION PURSUANT TO RULE 13a-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Iraj Ali, certify that:

1. I have reviewed this Annual Report on Form 20-F of Achilles Therapeutics plc;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   A. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   B. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   C. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   D. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   A. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

B. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2022

/s/ Iraj Ali

Iraj Ali

Chief Executive Officer (Principal Executive Officer)

Exhibit 12.2

CERTIFICATION PURSUANT TO RULE 13a-14(a) OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Robert Coutts, certify that:

1. I have reviewed this Annual Report on Form 20-F of Achilles Therapeutics plc;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   A. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   B. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   C. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   D. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   A. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

B. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2022

/s/ Robert Coutts

Robert Coutts
Chief Financial Officer
(Principal Financial Officer)

Exhibit 13.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report on Form 20-F of Achilles Therapeutics plc (the "Company") for the year ended December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officer hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 1, 2022

By: /s/ Iraj Ali
Name: Iraj Ali

Title: Chief Executive Officer (Principal Executive Officer)

Exhibit 13.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report on Form 20-F of Achilles Therapeutics plc (the "Company") for the year ended December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officer hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 1, 2022

By: /s/ Robert Coutts

Name: Robert Coutts

Title: Chief Financial Officer
(Principal Financial Officer)

Exhibit 15.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statement (No. 333-255063) on Form –S-8 of our report dated March 1, 2022, with respect to the consolidated financial statements of Achilles Therapeutics plc.

/s/ KMPG LLP

United Kingdom

March 1, 2022