As confidentially submitted to the Securities and Exchange Commission on September 17, 2021.

This draft registration statement has not been publicly filed with the Securities and Exchange Commission and all information herein remains strictly confidential.

Registration No. 333-_____

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

AMENDMENT NO.1

FORM F-1

REGISTRATION STATEMENT UNDER SECURITIES ACT OF 1933

TC BIOPHARM (HOLDINGS) LIMITED [1]

(Exact name of registrant as specified in its charter)

Scotland	**8731**	**Not Applicable**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

Maxim 1, 2 Parklands Way
Holytown, Motherwell, ML1 4WR
Scotland, United Kingdom
+44 (0) 141 433 7557
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

TC BioPharm (North America) Inc.
C/o Business Filings, Inc.
108 West 13th Street
Wilmington, Delaware 19801
(800) 981-7183

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy of all communications including communications sent to agent for service, should be sent to:

Andrew D. Hudders, Esq.	**Joseph Lucosky, Esq.**
Golenbock Eiseman Assor Bell & Peskoe LLP	**Lucosky Brookman LLP**
711 Third Avenue – 17th Floor	**101 Wood Avenue South**
New York, NY 10017	**5th Floor**
(212) 907-7300	**Iselin, NJ 08830**
ahudders@golenbock.com	**(732) 395-4402**
	jlucosky@lucbro.com

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

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

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

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

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

Indicate by check mark whether the registrant is an emerging growth company.

Emerging Growth Company [X]

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

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

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	**Proposed maximum aggregate offering price (1)**	**Amount of Registration Fee**

Ordinary shares, £1.00 par value (2)(3)	$		$	
Representative's warrants (3)	$	- nil	$	-nil
Ordinary shares, issuable upon exercise of the representative's warrants (2)(4)	$		$	
Total fee			$	

(1) Estimated solely for purposes of calculating the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended, or the Securities Act. Includes the offering price of ordinary shares that the Underwriters have the option to purchase to cover over-allotments, if any.

(2) In addition, pursuant to Rule 416 under the Securities Act of 1933, as amended ("Securities Act"), the securities being registered hereunder include such indeterminate number of ordinary shares as may be issuable with respect to the ordinary shares being registered hereunder as a result of stock splits, stock dividends or similar anti-dilutive transactions.

(3) No additional registration fee is payable pursuant to Rule 457(g) under the Securities Act.

(4) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(g) under the Securities Act.

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

1. We intend to alter the legal status of our company under Scottish law from a private limited company immediately prior to completion of this offering by re-registering as a public limited company and changing our name from TC Biopharm (Holdings) Limited to TC Biopharm (Holdings) plc. See the section titled "Corporate Reorganization" in the prospectus which forms a part of this registration statement.

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION DATED SEPTEMBER 17, 2021

PRELIMINARY PROSPECTUS

____ Ordinary Shares

TC BIOPHARM

This is the initial public offering of ordinary shares of TC BioPharm (Holdings) Limited. All of the ordinary shares are being sold by us.

Prior to this offering, there has been no public market for our ordinary shares. It is currently estimated that the initial public offering price per share will be between $ and $. We intend to apply to list our ordinary shares on The Nasdaq Global Market under the symbol " ____ ." No assurance can be given that our application will be approved or that an active trading market for our ordinary shares will develop.

We are a "foreign private issuer," and an "emerging growth company" each as defined under the federal securities laws, and, as such, we will be subject to reduced public company reporting requirements. See the section entitled "Prospectus Summary—Implications of Being an Emerging Growth Company and a Foreign Private Issuer" for additional information.

Investing in our ordinary shares involves a high degree of risk. See "Risk Factors" beginning on page 13 for a discussion of information that should be considered in connection with an investment in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total
Initial public offering price	$	$
Underwriting discounts and commissions (1)	$	$
Proceeds to us (before expenses)	$	$

(1) In addition, we have agreed to reimburse the underwriters for certain expenses not exceeding $_____ and issue warrants to the representative of the underwriters, or the Representative, in an amount equal to ___% of the aggregate number of ordinary shares sold in this offering, or the Representative Warrants. See the section titled "Underwriting" beginning on page 122 of this prospectus for additional disclosure regarding underwriter compensation and offering expenses.

We have granted the underwriters an option to purchase from us, at the public offering price, up to ____ additional ordinary shares, less the underwriting discounts and commissions, within 45 days from the date of this prospectus to cover over-allotments, if any. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable will be $____ , and the total proceeds to us, before expenses, will be $_____ .

The underwriters expect to deliver the ordinary shares to purchasers in the offering on or about _____, 2021.

EF HUTTON
division of Benchmark Investments, LLC

The date of this prospectus is _____ , 2021

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Neither we nor the underwriters have authorized anyone to provide information different from that contained in this prospectus, any amendment or supplement to this prospectus or in any free writing prospectus prepared by us or on our behalf. Neither we nor the underwriters take any responsibility for, and can provide no assurance as to the reliability of, any information other than the information in this prospectus, any amendment or supplement to this prospectus, and any free writing prospectus prepared by us or on our behalf. Neither the delivery of this prospectus nor the sale of our ordinary shares means that information contained in this prospectus is correct after the date of this prospectus. This prospectus is not an offer to sell or the solicitation of an offer to buy these ordinary shares in any circumstances under which such offer or solicitation is unlawful.

You should rely only on the information contained in this prospectus and any free writing prospectus prepared by or on behalf of us or to which we have referred you. We or the underwriters have not authorized anyone to provide you with information that is different. We and the underwriters are offering to sell the ordinary shares, and seeking offers to buy the ordinary shares, only in jurisdictions where offers and sales are permitted. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of the ordinary shares.

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

ABOUT THIS PROSPECTUS

Unless the context requires otherwise, in this prospectus TC BioPharm (Holdings) Limited and its subsidiaries ("Subsidiar(y/ies)"), "TC BioPharm (Holdings) plc," and "TC BioPharm" shall collectively be referred to as "TCB," "the Company," "we," "us," and "our" unless otherwise noted. Prior to completion of this offering, we intend to re-register TC BioPharm (Holdings) Limited as a public limited company and to change its name to TC BioPharm (Holdings) plc and adopt articles of association in compliance

with the laws of Scotland. See "Description of Share Capital and Governing Documents" for additional information about the proposed terms of the articles of association.

This prospectus includes our audited consolidated financial statements as of and for the fiscal years ended December 31, 2019 and 2020 prepared in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB"). We refer to these consolidated financial statements collectively as our "annual consolidated financial statements." None of our financial statements were prepared in accordance with U.S. GAAP. Our financial information is presented in pounds sterling. For the convenience of the reader, in this prospectus, unless otherwise indicated, translations from pounds sterling into U.S. dollars were made at the rate of £1.00 to $1.3662, which was the noon buying rate of the Federal Reserve Bank of New York on December 31, 2020. Such U.S. dollar amounts are not necessarily indicative of the amounts of U.S. dollars that could actually have been purchased upon exchange of pounds sterling at the dates indicated. All references in this prospectus to "$" mean U.S. dollars and all references to "£" and "GBP" mean pounds sterling. Our fiscal year begins on January 1 and ends on December 31 of the same year. All references to fiscal year 2019 relate to the year ended December 31, 2019 and fiscal year 2020 relate to the year ended December 31, 2020.

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

This prospectus includes statistical, market and industry data and forecasts which we obtained from publicly available information and independent industry publications and reports that we believe to be reliable sources. These publicly available industry publications and reports generally state that they obtain their information from sources that they believe to be reliable, but they do not guarantee the accuracy or completeness of the information. Although we believe that these sources are reliable, we have not independently verified the information contained in such publications. In addition, assumptions and estimates of our and our industry's future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors." These and other factors could cause our future performance to differ materially from our assumptions and estimates.

Some of our trademarks and trade names are used in this prospectus, which are intellectual property owned by the Company. This prospectus also includes trademarks, trade names, and service marks that are the property of other organizations. Solely for convenience, our trademarks and trade names referred to in this prospectus appear without the ^{TM} symbol, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable licensor to these trademarks and trade names.

ENFORCEABILITY OF CIVIL LIABILITIES

TCB is a corporation organized under the laws of Scotland. Substantially all of TCB's assets and its directors and executive officers are located and reside, respectively, outside the United States. Because of the location of TCB's assets and board members, it may not be possible for investors to serve process within the United States upon TCB or those persons with respect to matters arising under the United States federal securities laws or to enforce against TCB or persons located outside the United States judgments of United States courts asserted under the civil liability provisions of the United States federal securities laws.

TCB understands that there is doubt as to the enforceability in Scotland and the United Kingdom, in original actions or in actions for enforcement of judgments of United States courts, of civil liabilities predicated solely upon the federal securities laws of the United States insofar as they are fines or penalties. In addition, awards of punitive damages in actions brought in the United States or elsewhere may be unenforceable in Scotland and the United Kingdom by reason of being a penalty.

TCB has appointed TC BioPharm (North America) Inc., a Delaware corporation, its wholly owned subsidiary corporation, located at Business Filings, Inc. 108 West 13th Street, Wilmington, Delaware 19801 as its agent to receive service of process in any action against it in any state or federal court in the State of New York.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

TCB discusses in this prospectus its business strategy, market opportunity, capital requirements, product introductions and development plans and the adequacy of the Company's funding. Other statements contained in this prospectus, which are not historical facts, are also forward-looking statements. TCB has tried, wherever possible, to identify forward-looking statements by terminology such as "may," "will," "could," "should," "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and other comparable terminology.

TCB cautions investors that any forward-looking statements presented in this prospectus, or that TCB may make orally or in writing from time to time, are based on the beliefs of, assumptions made by, and information currently available to, TCB. These statements are based on assumptions, and the actual outcome will be affected by known and unknown risks, trends, uncertainties and factors that are beyond its control or ability to predict. Although TCB believes that its assumptions are reasonable, they are not a guarantee of future performance, and some will inevitably prove to be incorrect. As a result, its actual future results can be expected to differ from its expectations, and those differences may be material. Accordingly, investors should use caution in relying on forward-looking statements, which are based only on known results and trends at the time they are made, to anticipate future results or trends. Certain risks are discussed in this prospectus and also from time to time in TCB's other filings with the Securities and Exchange Commission ("SEC").

This prospectus and all subsequent written and oral forward-looking statements attributable to the Company or any person acting on its behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. The Company does not undertake any obligation to release publicly any revisions to its forward-looking statements to reflect events or circumstances after the date of this prospectus.

PROSPECTUS SUMMARY

The following summary highlights selected information contained elsewhere in this prospectus. This summary does not contain all the information you should consider before investing in our ordinary shares. You should carefully read this prospectus in its entirety before investing in our ordinary shares, including the sections entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this prospectus.

The Company

Corporate Overview

TCB, a private limited company based in Scotland, is a clinical-stage biopharmaceutical company focused on developing novel immunotherapy products that are based on our proprietary allogeneic gamma delta T (abbreviated as GD-T) cell platform. Harnessing the innate ability of GD-Ts has enabled TCB to develop a range of clinical-stage cell therapies designed to combat identified cancers and viral infections.

TCB is embarking on phase II-into-pivotal (phase III) clinical studies, which are expected to commence in the fourth quarter of 2021, following United Kingdom and European Union regulations, with a view to launching its first oncology product, which will be for the treatment of acute myeloid leukemia (abbreviated as AML). We

plan to conduct similar clinical trials in the United States in 2022 for the treatment of AML following a planned application to the FDA in H1 2022. Clinical results generated thus far have enabled TCB to obtain FDA orphan drug status for its method of treatment of AML.

In addition to unmodified allogenic GD-Ts for treatment of blood cancers, TCB also is developing an innovative range of genetically-modified chimeric antigen receptor modified T cells (abbreviated as CAR-T) products for treatment of solid cancers. TCB believes that solid cancers are more difficult to treat than blood cancers and may require addition of a chimeric antigen receptor (abbreviated as CAR) to (i) help therapeutic cells 'navigate' into diseased cancerous tissue, and (ii) retain therapeutic cells in-situ at the lesion for maximum efficacy.

In response to the recent pandemic, because GD-Ts are natural killers of virally infected cells, as well as cancerous cells, TCB is planning clinical studies to treat patients with both acute and long term COVID-19 symptoms. We believe acute COVID-19 studies will be undertaken starting in the fourth quarter of 2021.

Patent Portfolio and Intellectual Property

We believe TCB has a strong portfolio of patents and licenses covering the manufacture and commercialization of GD-T cell products and their modification via CAR-T. We own two granted patents and 46 patent applications in six families, and have an exclusive license to an additional one family of 14 patents. We protect our proprietary position, generally, by filing an initial priority filing at the United Kingdom Intellectual Property Office, or UKIPO, followed by patent applications under the Patent Co-operation Treaty claiming priority from the initial application(s) and then progressing to national applications in, for example, the United States, Europe, Japan, Australia, New Zealand, India and Canada.

As a platform technology, we believe the co-stimulatory CAR-T GD-T cell system has a wealth of potential options to build added functionality. We plan to continue to innovate and partner in the field to augment our drug products and introduce next generation attributes. We will also continue to innovate our manufacturing and supply chains to efficiently scale our processes and simplify the interface with patients and healthcare professionals, whilst continually seeking to reduce manufacturing costs to improve patient access.

We intend to continue building on our technology platform, comprised of intellectual property, proprietary methods and know-how in the field of GD-T cells. These assets form the foundation for our ability, not only to strengthen our product pipeline, but also to successfully defend and expand our position as a leader in the field of GD-T based immuno-oncology.

Our Product Strategy

Our strategic objective is to build a global therapeutic business with an extensive portfolio of the two principal sub-types of GD-T (GD-T D1 & GD-T D2) cell-based products with the potential to significantly improve the outcomes of patients with cancer and infectious disease.

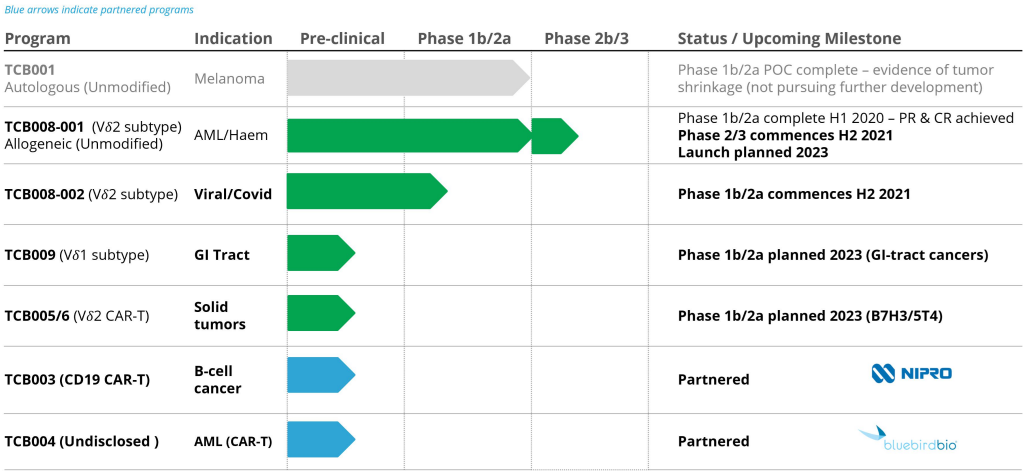
Our strategy is to take a step-wise approach to clinical development and commercialization. After our inception, we made clinical transitions from autologous GD-Ts to allogeneic GD-Ts to CAR-modified allogeneic GD-Ts. Our commercialization strategy is to introduce clinical studies for products firstly in blood cancers (AML initially) and then solid tumor indications in the 2022 and 2023 timeframe. The latter will initially be focused on gut-related solid cancers. Complementarily, since GD-T cells are dysfunctional in patients with severe viral diseases, TCB plans to commence development of treatment for COVID-19, with phase I/II clinical studies in the EU commencing in the fourth quarter of 2021, with potential preliminary efficacy data available in the first half of 2022, and thereafter co-develop the COVID-19 treatment with one or more pharmaceutical companies for phase II/III studies and later commercialization.

Since 2015, TCB has maintained medicinal product manufacturing facilities for Investigational Medicinal Products MIA (abbreviated IMP), operated under license from the United Kingdom Medicines and Healthcare Products Regulatory Agency (abbreviated MHRA). In April 2016, the MHRA granted a 'Specials' license to TCB, which allows it to treat patients under supervision of a qualified doctor outside a clinical trial, and approved the company's facility for ongoing Good Manufacturing Process ("GMP") compliance, which permits the manufacture and release of Advanced Therapy Medicinal Products (abbreviated ATMPs) for use in clinical trials. TCB maintains a rigorous Quality Management System, which is based on the principles of the current GMP of the European and UK law and regulation and EudraLex Volume 4, as revised. The Company complies with the two directives laying down principles and guidelines of GMP for medicinal products were adopted by the Commission. Directive 2003/94/EC applies to medicinal products for human use and Directive 91/412/EEC for veterinary use. Detailed guidelines in accordance with those principles are published in the Guide to Good Manufacturing Practice which will be used in assessing applications for manufacturing authorizations and as a basis for inspection of manufacturers of medicinal products.

Regulatory approval of all aspects of medicinal therapy development, testing, manufacture and commercialization always is of concern. In the case of treatment for AML, TCB has developed the novel approach of antibody-based immunotherapy and adoptive cell therapy with the aim to improve anti-leukemia T cell function. Therefore, TCB is able to take advantage of orphan medicine regulation provided by the European Medicines Agency (abbreviated EMA) and the United States Federal Drug Administration (abbreviated FDA), which are designed to encourage medicine development for small numbers of patients where there is little commercial incentive under normal market conditions.

Part of our strategy is to collaborate with appropriate partners. We have a relationship with NIPRO Corporation (Osaka, Japan), both as a strategic investor and in collaboration to carry our certain proof of concept work in relation to GD-T therapies. TCB also has a collaboration with bluebird bio, inc. (Cambridge, Massachusetts, USA) to advance our CAR engineered products into clinical development in multiple cancer antigens.

Our current products in our pipeline are:



Note: Programs indicated by grey or blue bars do not involve any current development or clinical activity by the Company.

Our unmodified cell therapy, used in the treatment of Acute Myeloid Leukemia (Program TCB008-001), is supplied under the name OmnImmune; and our unmodified cell therapy, used to treat COVID-19, is supplied under the name ImmuniStim.

TCB's Strengths

TCB believes it has certain identified strengths. These include:

- Clinical trials that have provided strong evidence of safety and clinical benefit;
- A proprietary co-stimulatory CAR-T technology platform which we believe allows solid cancers to be treated without toxic side-effects;
- Identification of a large pool of cancer targets for which we believe we can develop therapeutic candidates;
- Retention of key business elements, including the manufacture and clinical research of our products;
- Robust, and growing intellectual property portfolio protecting our products and proprietary platform;

- Our policy of developing strategic collaborations with leading, international companies to work together with us to develop certain GD-T CAR-T products into clinic. We believe that existing and future collaborations will provide us with experience in scale-up and automation, and post-authorization sales and marketing;
- A highly knowledgeable and experienced management team with extensive industry experience and expertise in the United States and in Europe; and
- Ability to treat of patients under the 'Specials' regulatory framework in Europe.

Corporate Information

Our principal executive offices are located in Scotland, United Kingdom, with a mailing address of Maxim 1, 2 Parklands Way, Holytown, Motherwell, ML1 4WR, United Kingdom and our telephone number at that location is +44 (0) 141 433 7557. Our website address is https://www.tcbiopharm.com/. The information contained on, or that can be accessed through, our website is not part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Corporate Reorganization

Prior to the completion of this offering we will undertake a corporate reorganization pursuant to which TC BioPharm (Holdings) Limited will become the direct holding company of TC BioPharm Limited and will re-register as a public limited company and change its name to TC BioPharm (Holdings) plc. Pursuant to the terms of the corporate reorganization, the shareholders of TC BioPharm Limited will exchange each of the shares held by them in TC BioPharm Limited for the same number and class of newly issued shares of TC BioPharm (Holdings) Limited and, as a result, TC BioPharm Limited will become a wholly owned subsidiary of TC BioPharm (Holdings) Limited. In addition, all of our outstanding series A ordinary shares and ordinary shares will convert into a single class of ordinary shares and following such conversion shall be governed in accordance with the terms of our articles of association. Please see "Corporate Reorganization" in this prospectus for more information.

Implications of Being an "Emerging Growth Company"

We are an "emerging growth company," as defined in Section 2(a) of the Securities Act of 1933, as amended, or the Securities Act. As such, we are eligible to, and intend to, take advantage of certain exemptions from various reporting requirements applicable to other public companies that are not "emerging growth companies" such as not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting of Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act. We could remain an "emerging growth company" for up to five years, or until the earliest of (a) the last day of the first fiscal year in which our annual gross revenue exceeds $1.07 billion, (b) the date that we become a "large accelerated filer" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, which would occur if the market value of our ordinary shares that is held by non-affiliates exceeds $700 million as of the last business day of our most recently completed second fiscal quarter, or (c) the date on which we have issued more than $1 billion in nonconvertible debt during the preceding three-year period.

Implications of being a "Foreign Private Issuer"

We are subject to the information reporting requirements of the Securities and Exchange Act of 1934, as amended, the Exchange Act, that are applicable to "foreign private issuers," and under those requirements we file reports with the SEC. As a foreign private issuer, we are not subject to the same requirements that are imposed upon U.S. domestic issuers by the SEC. Under the Exchange Act, we are subject to reporting obligations that, in certain respects, are less detailed and less frequent than those of U.S. domestic reporting companies. For example, we are not required to issue quarterly reports, proxy statements that comply with the requirements applicable to U.S. domestic reporting companies, or individual executive compensation information that is as detailed as that required of U.S. domestic reporting companies. We also have four months after the end of each fiscal year to file our annual report with the SEC and are not required to file current reports as frequently or promptly as U.S. domestic reporting companies. Our officers, directors and principal shareholders are exempt from the requirements to report transactions in our equity securities and from the short-swing profit liability provisions contained in Section 16 of the Exchange Act. As a foreign private issuer, we are not subject to the requirements of Regulation FD

(Fair Disclosure) promulgated under the Exchange Act. In addition, as a foreign private issuer, we are permitted to follow certain home country corporate governance practices instead of those otherwise required under the Nasdaq Stock Market rules for domestic U.S. issuers and are not required to be compliant with all Nasdaq Stock Market rules as of the date of our initial listing on Nasdaq as would domestic U.S. issuers These exemptions and leniencies will reduce the frequency and scope of information and protections available to you in comparison to those applicable to a U.S. domestic reporting company. We intend to take advantage of the exemptions available to us as a foreign private issuer during and after the period we qualify as an "emerging growth company."

The Offering

The following is a brief summary of certain terms of this offering.

Ordinary shares offered by us	_____ ordinary shares
Ordinary shares outstanding before this offering	_____ ordinary shares
Ordinary shares to be outstanding after this offering	____ ordinary shares (or ___ ordinary shares if the underwriters exercise in full their option to purchase additional shares)
Over-allotment option	The underwriters have an option for a period of 45 days to purchase up to _____ additional ordinary shares from us to cover over-allotments, if any.
Representative's warrants	We will issue to the Representative warrants to purchase up to _____ ordinary shares (or _____ ordinary shares if the underwriter exercises its over-allotment option in full). The warrants will have an exercise price of _____ % of the per share public offering price, will be exercisable on the date of issuance and will expire five years from the effective date of the registration statement of which this prospectus forms a part.
Use of proceeds	We estimate that the net proceeds from our issuance and sale of ordinary shares in this offering will be approximately $ million, assuming an offering price of $ per ordinary share, the midpoint of the estimated price range of the ordinary shares set forth on the cover of this prospectus, and after deducting underwriting discounts and commissions and offering expenses payable by us. If the underwriters exercise the over-allotment option in full, we estimate that the net proceeds from this offering will be approximately $ million, assuming an offering price of $ per ordinary share, and after deducting underwriting discounts and commissions and offering expenses payable by us. We currently expect to use the net proceeds from this offering primarily to finance the cost of treating patients under our proposed clinical trials TCB 008-001, a phase 2b-into-pivotal (phase 3) trial for the treatment of acute myeloid leukemia) and TCB 008-002 (for the treatment of COVID-19 infections) and to continue the research and development of our proposed GD-T CAR therapies to treat sold cancers, as well as financing our operating overhead costs. The exact amounts and timing of these expenditures will depend on a number of factors, such as the timing, scope, progress and results of our research and development efforts, the timing and progress of any partnering efforts, and the regulatory and competitive environment. See "Use of Proceeds" on page 51 of this prospectus for more a complete description of the intended use of proceeds from this offering as well as "Risk Factors."
Risk factors	You should read the "Risk Factors" section starting on page 13 of this prospectus for a discussion of factors to consider carefully before deciding to invest in our securities.
Proposed Nasdaq trading symbol	We intend to apply to list the ordinary shares on the Nasdaq Global Market under the symbol "_____." No assurance can be given that a liquid trading market will develop for the ordinary shares in the United States.

The number of our ordinary shares to be outstanding immediately after this offering is calculated taking into account the re-registration of company as a public limited company from being a limited liability company, under the name TC BioPharm (Holdings) plc, with reference to our entire issued share capital of _____ ordinary shares as of _____, 2021. The foregoing amount gives effect to the conversion, immediately prior to the completion of this offering, of all issued and outstanding ordinary shares, Class A ordinary shares, conversion of the _____ convertible notes and issuance of ordinary shares under the ____ Share Option Plan and assumes the additional issuance of _____ ordinary shares pursuant to the adjustment provisions in the Class A ordinary shares.

Unless otherwise indicated, all information in this prospectus, including information relating to the number of ordinary shares to be outstanding immediately after the completion of this offering excludes:

- Any exercise by the underwriters of the over-allotment option or of the warrant to purchase up to ordinary shares (or ordinary shares if the underwriters exercise in full their option to purchase additional ordinary shares) to be issued to the Representative in connection with this offering.
- Any exercise of options granted under our employee share option plan or other option grants or rights to purchase shares described in this prospectus.
- Any additional shares to be issued to the holders of our A Ordinary Shares in connection with their rights to receive additional shares upon conversion of A Ordinary Shares into Ordinary Shares in certain circumstances described in our Articles of Association.

Unless otherwise indicated, all information in this prospectus assumes no exercise by the underwriters of the over-allotment option and no exercise of the warrant to purchase up to ordinary shares (or ordinary shares if the underwriters exercise in full their option to purchase additional ordinary shares) to be issued to the Representative in connection with this offering.

Except as otherwise indicated references to our articles of association in this prospectus, unless the context provides otherwise, refer to our articles of association

as currently expected to be in force for TC BioPharm (Holdings) plc immediately before the completion of this offering.

Summary Consolidated Financial Data

We prepare our consolidated financial statements in accordance with IFRS as issued by the IASB. The following summary historical consolidated financial data as of and for the years ended December 31, 2019 and 2020, have been derived from our audited consolidated financial statements, which are included elsewhere in this prospectus. Our historical results for any prior period are not necessarily indicative of results expected in any future period.

The financial data set forth below should be read in conjunction with, and is qualified by reference to, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and notes thereto included elsewhere in this prospectus.

We maintain our books and records in Pounds Sterling (£), and we prepare our financial statements in accordance with IFRS as issued by the IASB. We report our financial results in pounds sterling. For the convenience of the reader, we have translated pound sterling amounts in the tables below as of December 31, 2020, and for the year ended December 31, 2020, into U.S. dollars at the noon buying rate of the Federal Reserve Bank of New York on December 31, 2020, which was £1.00 to $1.3662. These translations are solely for illustration and convenience and should not be considered representations that any amounts have been, could have been or could be converted into U.S. dollars at that or any other exchange rate as of that or any other date.

	Year Ended December 31,		
	2019	2020	2020
	(in thousands, except per share data)		
Consolidated Statement of Comprehensive Loss:			
Revenue	£ 3,427	£ 1,979	$ 2,703
Research and development expenses	(8,614)	(6,680)	(9,126)
Administrative expenses	(3,015)	(2,207)	(3,015)
Other income	1,561	569	778
Finance income - interest	22	1	1
Finance costs	(275)	(292)	(399)
Loss before tax	(6,894)	(6,630)	(9,058)
Income tax credit	826	1,172	1,601
Net loss for the year	(6,068)	(5,458)	(7,457)
Total other comprehensive income/(loss)	-	-	-
Total comprehensive loss for the year	£ (6,068)	£ (5,458)	$ (7,457)
Basic and diluted loss per share	£ (3.39)	£ (2.88)	$ (3.93)
Weighted average shares outstanding	1,792	1,892	

	As at December 31,		
	2019	2020	2020
	(in thousands)		
Consolidated Statement of Financial Position items:			
Cash and cash equivalents	£ 956	£ 748	$ 1,022
Working capital [(1)]	336	(1,970)	(2,691)
Total assets	10,140	7,267	9,928
Total liabilities	(12,679)	(10,614)	(14,500)
Share capital and share premium account	12,877	16,542	22,600
Accumulated deficit	(15,416)	(19,889)	(27,173)
Total equity attributable to the equity shareholders of the parent	(2,539)	(3,347)	(4,573)

(1). Working capital is defined as current assets less current liabilities

RISK FACTOR SUMMARY

Our business is subject to a number of risks and uncertainties, including those risks discussed at-length in the section below titled "Risk Factors." These risks include among others the following:

- We have generated operating losses since inception and expect to continue to generate losses. We may never achieve or maintain profitability. We will continue to require financing to continue to implement our business plan.
- We, as well as our independent registered public accounting firm, have expressed substantial doubt about our ability to continue as a going concern.
- Our lack of any approved products and our limited operating history may make it difficult for an investor to evaluate the success of our business to date and to assess our future viability.
- GD-T cell therapies are a novel approach to treating cancers and viruses, which have development risks and will require us to obtain regulatory approvals for development, testing, commercialization, manufacturing and distribution. We may not achieve all the required regulatory approvals or approvals may not be as timely as needed.

- Because of the novel approach, potential side effects, and long-term efficacy, regulatory approval will require considerable time for trials, data collection, regulatory submissions and funding for the process.

- Enrolling patients in clinical trials me be difficult for many reasons, including high screen failure, GD-T cell proliferation capacity, timing, proximity and availability of clinical sites, perceived risks, and publicity about the success or lack of success in the methods of treatment. Covid 19 requirements may also disrupt or delay the conduct of clinical trials.

- Because GD-T cell therapies are novel, our research and development, and clinical trial results may not support our products intended purposes and regulatory approval. We are heavily dependent on the success of our lead product candidates, TCB008-001, TCB008-002, TCB005. TCB006 and TCB009.

- Market opportunities for certain of our product candidates may be limited to those patients who are ineligible for or have failed prior treatments. This class of patient may be limited in number, difficult to locate and service, require special governmental approval, and unable to pay or obtain reimbursement.

- We rely on many third parties for aspects of our product development and commercialization, such as raw material supply, clinical trials, obtaining approvals, aspects of manufacturing, development of additional product candidates and distribution. We may not be able to control these parties and their business practices, such as compliance with good manufacturing requirements or their ability to supply or service us timely, which will likely disrupt our business.

- We face substantial competition: others may discover, develop or commercialize competing products before or more successfully than TCB.

- Even if we are able to commercialize any product candidates, such drugs may become subject to unfavorable pricing regulations or third-party coverage and reimbursement policies. Commercialized products may not be adopted by the medical profession.

- Because we are operating internationally, we will be subject to a wide array of regulation of the United Kingdom, European Union and United States, in addition to all the regulation of those jurisdictions surrounding new drug development and their manufacture, distribution and use. Compliance will be intricate and costly, partly because of the multiplicity of jurisdictional rules and regulations that have to be followed at the same time. For example, we will be subject to data protection laws and regulations relating to medical records, various medical and general privacy laws, certain environmental laws regarding medical waste, and bribery and corrupt practices law, in addition to all the drug related approval, manufacturing and distribution rules and regulations.

- Product liability claims are frequent in the business sector of drug development, especially in connection with novel therapies, and insurance is mandatory and expensive. The inability to obtain insurance may provide product development and claims may surpass our ability to pay and call into question the efficacy of a product with resulting reputational damage.

- Protecting our intellectual property is paramount in our ability to be able to commercialize our products and generate revenues and investment return for our stockholders. We may not be able to obtain the intellectual property protection we seek due to its cost, requirement to pursue it in many jurisdictions, challenges by others and patent office rejection.

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

- As part of product development, we may need to license aspects of our research and products from third parties or if our IP is challenged, we may have to seek license accommodation, any of which may be expensive, limited in scope, or unavailable.

- We currently have a limited number of employees, and our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel at all levels.

- We expect to expand our development and regulatory capabilities and potentially implement sales, marketing and distribution capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations. We expect to require further funding for these expansions of activity.

- We will incur increased costs as a result of operating as a public company in the United States, and our management is required to devote substantial time to new compliance initiatives and corporate governance practices.

- Certain of our existing stockholders, members of our board of directors and senior management maintain the ability to exercise significant control over us. Your interests may conflict with the interests of these existing stockholders.

- Future sales, or the possibility of future sales, of a substantial number of our ordinary shares could adversely affect the price of our ordinary shares in the market. After any lock up period, a substantial number of our issued and outstanding ordinary shares will be eligible for trading on the public securities market.

- As a foreign private issuer, we, and our stockholders, have certain exceptions to disclosure regulation under United States federal securities regulation, and we will take certain NASDAQ governance exceptions. Consequently, investors may not have the totality of disclosure about and governance controls in TCB as compared to United States domestic reporting companies.

- Shareholder rights and recourse will be governed by and ultimately determined by Scottish and United Kingdom law and judicial process, which in many ways are more limited than United States law and practice. Most of our directors and officers are not resident in the United States. Most of our assets are located in the United Kingdom.

RISK FACTORS

Investing in our company and its securities involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this prospectus, including our consolidated financial statements and related notes, before investing in our company and our securities. If any of the following risks materialize, our business, financial condition, operating results and prospects could be materially and adversely affected. In that event, the price or value of our ordinary shares could decline, and you could lose part or all of your investment.

Risks Related to Our Financial Position and Need for Additional Capital

We have incurred net losses every year since our inception and expect to continue to incur net losses in the future and may never achieve profitability.

We have generated losses since our inception in 2013. Since then, we have devoted substantially all of our resources to research and development efforts relating to

our genetically unmodified and genetically engineered GD-T cell candidates, including engaging in activities to manufacture and supply our GD-T cell candidates for clinical trials, conducting initial clinical trials of our lead candidates, general and administrative support for these operations, and protecting our intellectual property. Based on our current plans, we do not expect to generate product or royalty revenues until we obtain marketing approval for, and commercialize, any of our GD-T cell-based candidates.

For the fiscal years ended December 31, 2019 and 2020, we incurred net losses of £6.1 million and £5.5 million ($ 7.5 million) respectively. As of December 31, 2020, we had an accumulated deficit of £19.9 million ($ 27.2 million). We expect to continue incurring significant losses as we continue with our research and development programs and to incur general and administrative costs associated with our operations. The extent of funding required to develop our product candidates is difficult to estimate given the novel nature of our GD-T cell-based cell therapy candidates and their un-proven route to market. Ultimately, our profitability is dependent upon the successful development, approval, and commercialization of our GD-T cell-based therapeutic candidates and achieving a level of revenues adequate to support our cost structure. We may never achieve profitability and until we do, we will continue to need to raise additional cash.

We have never generated any revenue from sales of our GD-T cell-based product candidates and our ability to generate revenue from sales of our therapeutic candidates and become profitable depends significantly on our success in a number of factors.

We continue to focus on development activities for our technologies and implementation of the early parts of our business plan. A large percentage of our expenses will continue to be fixed; accordingly, our losses may be greater than expected and our operating results will suffer. We may never achieve commercial success and continue to operate in the research and development stage, without commercially launching any products at this time. We have limited historical financial data upon which we may base our projected revenue and base our planned operating expenses. Our limited operating history makes it difficult for potential investors to evaluate our potential product candidates, drug therapies or prospective operations and business prospects. As a development stage company, we are subject to all the risks inherent in the initial organization, business development, financing, unexpected expenditures, and complications and delays that often occur in a new business. Investors should evaluate an investment in us in light of the uncertainties encountered by developing companies in a competitive environment. There can be no assurance that our efforts will be successful or that we will ultimately be able to attain profitability.

We have no GD-T cell-based therapeutic candidates approved for commercial sale and have not generated any revenue from sales of our GD-T cell-based therapeutic candidates, and do not anticipate generating any revenue from sales of our GD-T cell-based therapeutic candidates until sometime after we receive regulatory approval, if at all, for the commercial sale of a GD-T cell-based therapeutic candidate. We intend to fund future operations through our existing and future collaboration and licensing agreements for other therapeutic targets and through additional equity financings. Our ability to generate revenue and achieve profitability depends on our success in many factors, including:

- completing research regarding, and preclinical and clinical development of, our GD-T cell-based therapeutic candidates;
- obtaining regulatory approvals and marketing authorizations for our GD-T cell-based therapeutic candidates for which we complete clinical trials;
- developing sustainable and scalable manufacturing and supply processes for our GD-T cell-based therapeutic candidates, including establishing and maintaining commercially viable supply relationships with third parties and pursuing our own commercial manufacturing capabilities and infrastructure;

- launching and commercializing GD-T cell-based therapeutic candidates for which we obtain regulatory approvals and marketing authorizations, either directly or with a collaborator or distributor;
- obtaining market acceptance of our GD-T cell-based therapeutic candidates as viable treatment options;
- addressing any competing technological and market developments;
- identifying, assessing, acquiring and/or developing new GD-T cell-based therapeutic candidates;
- maintaining, protecting, and expanding our portfolio of intellectual property rights, including patents, trade secrets and know-how; and
- attracting, hiring and retaining qualified personnel.

Even if one or more of our GD-T cell-based therapeutic candidates is approved for commercial sale, we anticipate incurring significant costs associated with commercializing any approved GD-T cell-based therapeutic candidate. Our expenses will increase beyond our current expectations if the U.S. Food and Drug Administration, the FDA, or the United Kingdom Medicines and Healthcare products Regulatory Agency, the MHRA, or any other regulatory agency require changes to our manufacturing processes or assays, or for us to perform preclinical programs and clinical or other types of trials in addition to those that we currently anticipate. If we are successful in obtaining regulatory approvals to market one or more of our GD-T cell-based therapeutic candidates, our revenue will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval, the accepted price for the GD-T cell-based therapeutic candidate, the ability to get reimbursement at any price, and whether we own the commercial rights for that territory. If the number of our addressable disease patients is not as significant as we estimate, the indication approved by regulatory authorities is narrower than we expect, or the reasonably accepted population for treatment is narrowed by competition, physician choice or treatment guidelines, we may not generate significant revenue from sales or supplies of such GD-T cell-based therapeutic candidates, even if approved. If we are not able to generate revenue from the sale of any approved GD-T cell-based therapeutic candidates, we may never become profitable.

If we fail to obtain additional financing as needed, we may be unable to complete the development and commercialization of our GD-T cell-based product candidates.

Our operations have required substantial amounts of cash since inception. We expect to continue to spend substantial amounts to continue the development of our GD-T cell-based therapeutic candidates, including for future clinical trials. We expect to use a large part of the net proceeds from this offering to advance and accelerate the clinical development of our therapeutic candidates, therefore, changing circumstances beyond our control may cause us to increase our spending significantly faster than we currently anticipate, we believe we will require additional capital, likely in significant amounts, for the further development and commercialization of our GD-T cell-based therapeutic candidates.

We cannot be certain that additional funding will be available on acceptable terms, or at all. We have no committed source of additional capital. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of our GD-T cell-based therapeutic candidates or other research and development initiatives. Our license and supply agreements may also be terminated if we are unable to meet the milestone obligations under these agreements. We could be required to seek collaborators for our GD-T cell-based therapeutic candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available or relinquish or license on unfavorable terms our rights to our GD-T cell-based therapeutic candidates in markets where we otherwise would seek to pursue development or commercialization ourselves. Any of the above events could significantly harm our business, prospects, financial condition and results of operations and cause the price of our ordinary shares to decline.

We, as well as our independent registered public accounting firm, have expressed substantial doubt about our ability to continue as a going concern.

Our recurring losses from operations and negative cash flow raise substantial doubt about our ability to continue as a going concern. As a result, our independent registered public accounting firm included an explanatory paragraph in its report on our financial statements for the years ended December 31, 2019 and 2020 with respect to this uncertainty.

Our ability to continue as a going concern ultimately is dependent upon our generating cash flow from sales that are sufficient to fund operations or finding adequate financing to support our operations. To date, we have had no product revenues and relied on equity-based financing from the sale of securities subscribed by our founders and related parties and in various private placements; and receipts from collaboration partners. Our research and development plans may not be successful in creating a marketable product, and our business plan may not be successful in achieving a sustainable business and generating revenues. Although we are engaged in the offering described in this prospectus, we have no arrangements in place for all the anticipated, required financing to be able to fully implement our business plan. If we are unable to continue as planned currently, we may have to curtail some or all of our business plan and operations. In such case, investors will lose all or a portion of their investment.

We anticipate needing additional financing over the longer term to execute our business plan and fund operations, which additional financing may not be available on reasonable terms or at all.

The proceeds from this offering are expected to provide capital to further develop our drug product candidates and fund our overall business plan through late 2022. We will require additional capital in the future to fully develop our technologies and potential products to the stage of a commercial launch. We cannot give now any indication of the amount of future funding that we will need or give any assurance that we will be able to obtain all the necessary funding that we may need. We may pursue additional funding through various financing sources, including the private and public sale of our equity and debt securities, licensing fees for our product candidates, joint ventures with capital partners and project type financing. We also may seek government-based financing, such as development and research grants. There can be no assurance that funds will be available on commercially reasonable terms, if at all. If financing is not available on satisfactory terms, we may be unable to further pursue our business plan and we may be unable to continue operations, in which case you may lose your entire investment. Alternatively, we may consider changes in our business plan that might enable us to achieve aspects of our business objectives and lead to some commercial success with a smaller amount of capital, but we cannot assure that changes in our business plan will result in revenues or maintain any value in your investment.

Risks Related to Development, Clinical Testing and Commercialization of Our Investigational Therapies and Any Future Therapeutic Candidates

Our GD-T cell therapies represent a novel approach to cancer and virus treatment that could result in heightened regulatory scrutiny, delays in clinical development, or delays in or our ability to achieve regulatory approval or commercialization of our therapeutic candidates.

Our products are novel cancer and virus treatment approaches that carry inherent development risks. We are therefore constantly evaluating and adapting our therapeutic candidates following the results obtained during development work and the ongoing clinical trials. Further development, characterization and evaluation may be required, depending on the results obtained, in particular where such results suggest any potential safety risk for patients. The need to develop further assays, or to modify in any way the protocols related to our therapeutic candidates to improve safety or effectiveness, may delay a clinical program, regulatory approval or commercialization, if approved at all, of any therapeutic candidate. Consequently, this may have a material impact on our ability to receive milestone payments and/or generate revenues from our therapeutic candidates. In addition, given the novelty of our GD-T cell therapeutic candidates, the end users and medical personnel require a substantial amount of education and training in their administration of our cell therapy. Regulatory authorities have very limited experience with commercial cell therapies for disease treatment. As a result, regulators may be more risk averse or require substantial dialogue and education as part of the normal regulatory approval process for each stage of development of our therapeutic candidates.

GD-T cell therapy creates significantly increased risk in terms of side-effect profile, ability to satisfy regulatory requirements associated with clinical trials, and the long-term efficacy of administered cells.

Development of a pharmaceutical or biologic therapy product has inherent risks based on differences in patient population and responses to therapy and treatment. The mechanism of action and impact on other systems and tissues within the human body following administration of GD-T cell therapy products is not completely understood, which means that we cannot predict the long-term effects of treatment with the GD-T cell therapy product. We are aware that certain patients may not respond to GD-T cell therapy and other patients may relapse. The percentage of the patient population in which these events may occur is unknown, but the inability of patients to respond and the possibility of relapse may impact our ability to conduct clinical trials, to obtain regulatory approvals, if at all, and to successfully commercialize our therapeutic products.

Our GD-T cell therapeutic candidates and their application are not fully scientifically understood and are still undergoing validation and investigation. The utility of our GD-T cell products may depend on persistence, potency, durability and infiltration capacity of the GD-T cells within a patient's body. The level of persistence and the factors affecting such persistence, potency and infiltration capacity in patients are not completely understood, which presents an additional risk to the ongoing development and use of our therapeutic candidates. Certain steps involved in validating and carrying out testing require access to samples (for example tissue samples or cell samples) from third parties. Such samples may be obtained from universities or research institutions and will often be provided subject to satisfaction of certain terms and conditions. There can be no guarantee that we will be able to obtain samples in sufficient quantities to enable development of and use of the full preclinical safety testing program for CAR-T therapeutic candidates undergoing development. In addition, the terms under which such samples are available may not be acceptable to us or may restrict our use of any generated results or require us to make payments to the third parties.

Our products, before they can be commercialized, will require regulatory approval.

We cannot commercialize a product candidate until the appropriate regulatory authorities have reviewed and approved the product candidate. Approval by the FDA, the MHRA and comparable other regulatory authorities is lengthy and unpredictable, and depends upon numerous factors. Approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions, which may cause delays in the approval or the decision not to approve an application. We have not obtained commercialization regulatory approval for any product candidate, and it is possible that any of our product candidates will never obtain regulatory approval.

Applications for product candidates we may develop could fail to receive regulatory approval for many reasons, including but not limited to:

- our inability to demonstrate to the satisfaction of the regulatory authorities that a product candidate we develop is safe and effective;
- the regulatory authorities may disagree with the design or implementation of our clinical trials;
- the population studied in the clinical program may not be sufficiently broad or representative to assure safety in the full population for which we seek approval;
- the regulatory authorities' requirement for additional preclinical studies or clinical trials;
- the regulatory authorities may disagree with our interpretation of data from nonclinical studies or clinical trials;
- the data collected from clinical trials may not be sufficient to support the submission of a new drug application, or NDA, or other submission for regulatory approval;

- we may be unable to demonstrate to the regulatory authorities that a product candidate's risk-benefit ratio for its proposed indication is acceptable;
- the regulatory authorities may fail to approve the manufacturing processes, test procedures and specifications, or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the regulatory authorities may change in a manner that renders our clinical trial design or data insufficient for approval.

The lengthy approval process, as well as the unpredictability of the results of clinical trials, may result in our failing to obtain regulatory approval to market a product candidate in the United States, the UK, the EU or elsewhere, which would significantly harm our business, prospects, financial condition and results of operations.

We may encounter substantial delays in completing our clinical trials, which in turn will result in additional costs and may ultimately prevent successful or timely completion of the clinical development and commercialization of our product candidates.

We must conduct extensive clinical trials to demonstrate the safety and efficacy of the product candidates in humans before commercialization. Clinical testing is expensive, time-consuming and uncertain as to outcome. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. A failure of one or more clinical trials can occur at any stage of testing. Events that may prevent successful or timely completion of clinical development include:

- delays in reaching, or any failure to reach, a consensus with regulatory agencies on study design;
- delays in obtaining FDA required Institutional Review Board, or IRB, approval at each clinical trial site;
- delays in recruiting a sufficient number of suitable patients to participate in our clinical trials;
- imposition of a clinical hold by regulatory agencies, after an inspection of our clinical trial operations or study sites;

- failure by third parties or us to adhere to clinical trial, regulatory or legal requirements;
- failure to perform in accordance with good clinical practices, GCP, or applicable regulatory guidelines in other countries;
- delays in the testing, validation, manufacturing and delivery of sufficient quantities of our product candidates to the clinical sites;
- delays in having patients' complete participation in a study or return for post-treatment follow-up;
- clinical trial sites or patients dropping out of a trial;
- delay or failure to address any patient safety concerns that arise during the course of a trial;
- unanticipated costs or increases in costs of clinical trials of our product candidates;
- occurrence of serious adverse events associated with the product candidate that are viewed to outweigh its potential benefits; or
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols.

We could also encounter delays if a clinical trial is suspended or terminated by us or by regulators and related reviewing authorities such as IRBs of the institutions in which such trials are being conducted, by an independent Safety Review Board. Suspension or termination of a clinical trial might be due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, or failure to demonstrate a benefit from using a therapy. In addition, if we make manufacturing or formulation changes to our product candidates, we may need to conduct additional studies to bridge our modified product candidates to earlier versions. In addition, any delays in completing our clinical trials will increase our costs, slow down our product candidate development and approval process and jeopardize our ability to obtain regulatory approvals, commence product sales and generate revenues. Any of these occurrences may significantly harm our business, prospects, financial condition and results of operations.

Manufacturing and administering our GD-T cell-based therapeutic candidates is complex, and we may encounter difficulties in production, particularly with respect to process development or scaling-up of our manufacturing capabilities. If we encounter such difficulties, our ability to supply of our GD-T cell therapeutic candidates for clinical trials or for commercial purposes could be delayed or stopped.

Manufacturing and administrating our GD-T cell-based therapeutics candidates is complex and highly regulated. The manufacture process of our GD-T cell-based therapeutics involves complex processes, including peripheral blood mononuclear cell isolation from leukapheresis material, stimulation of the GD-T cells, expansion of the cells to obtain a desired dose, and ultimately infusion of the cells to the patient's body. On occasions the GD-T cell therapeutic could be genetically modified, which could involve manufacturing of lentiviral vectors containing the gene of our interest (for example Chimeric Antigen Receptor) and transducing the cells or a method such as electroporation or nucleofection of a plasmid containing the gene of interest to the cells. As a result of the complexities, our manufacturing and supply costs are likely to be higher than those in more traditional manufacturing processes and the manufacturing process is less reliable and more difficult to reproduce. Our manufacturing process is, and will be, susceptible to product loss or failure due to logistical issues, including manufacturing issues associated with the differences in patients' white blood cells, interruptions in the manufacturing process, contamination, equipment or reagent failure, supplier error and variability in GD-T cell-based therapeutic candidate and patient characteristics. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects, and other supply disruptions. If microbial, viral or other contaminations are discovered in our GD-T cell-based therapeutic candidates or in the manufacturing facilities in which our GD-T cell based therapeutic candidates are made or administered, the manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination. As our GD-T cell-based therapeutic candidates progress through preclinical programs and 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.

We have identified some improvements to our manufacturing and administration processes, but these changes may not achieve the intended objectives, and could cause our GD-T cell-based therapeutic candidates to perform differently and affect the results of planned clinical trials or other future clinical trials. The changes may require amendments to be made to regulatory applications which may further delay the timeframes under which modified manufacturing processes can be used for any GD-T cell-based therapeutic candidate. For example, we are planning to introduce automated enclosed systems to our production process. This will require development work to ensure that these modifications do not alter the characteristics of the product. If the GD-T cell-based therapeutic candidate manufactured under the new process has a worse safety or efficacy profile than the prior investigational product, we may need to re-evaluate the use of that manufacturing process, which could significantly delay the progress of our clinical trials.

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. We may ultimately be unable to reduce the expenses associated with our GD-T cell-based therapeutic candidates to levels that will allow us to achieve a profitable return on investment. If we are unable to demonstrate that our commercial scale product is comparable to the product used in clinical trials, we may not receive regulatory approval for that product without additional clinical trials. Even if we are successful, our manufacturing capabilities could be affected by increased costs, 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, which in turn could have a material adverse effect on our business.

We may seek expedited approval in the European Union and United States for our therapeutic candidates, but we may not be able to obtain or maintain such designation.

The FDA and the European Medicines Agency, the EMA, have established programs to expedite drug development and regulatory review. The FDA has four main expedited programs: fast track (introduced in 1987), accelerated approval (1992), priority review (1992), and breakthrough therapy (2012). A priority review designation in North America will direct overall attention and resources to the evaluation of applications for drugs that, if approved, would be significant improvements in the safety or effectiveness of the treatment, diagnosis, or prevention of serious conditions when compared to standard applications. Significant improvement may be demonstrated by the following examples:

- evidence of increased effectiveness in treatment, prevention, or diagnosis of condition;
- elimination or substantial reduction of a treatment-limiting drug reaction;
- documented enhancement of patient compliance that is expected to lead to an improvement in serious outcomes; or
- evidence of safety and effectiveness in a new subpopulation.

We may seek breakthrough therapy or fast track designations for our therapeutic candidates in the United States and the EU. In 2012, the FDA established a breakthrough therapy designation which is intended to expedite the development and review of products that treat serious or life-threatening diseases when "preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development." The designation of a therapeutic candidate as a breakthrough therapy provides potential benefits that include more frequent meetings with the FDA to discuss the development plan for the therapeutic candidate and ensure collection of appropriate data needed to support approval; more frequent written correspondence from the FDA about things such as the design of the proposed clinical trials and use of biomarkers; intensive guidance on an efficient drug development program, beginning as early as Phase 1; organizational commitment involving senior managers; and eligibility for rolling review and priority review. Breakthrough therapy designation does not change the standards for product approval.

We intend to seek breakthrough therapy designation for some or all of our therapeutic candidates, but there can be no assurance that we will receive breakthrough therapy designation. Additionally, other treatments from competing companies may obtain the designations and impact our ability to develop and commercialize our therapeutic candidates, which may adversely impact our business, financial condition or results of operation. We may also seek fast track designation. If a drug or biologic candidate is intended for the treatment of a serious or life-threatening condition or disease and the drug demonstrates the potential to address unmet medical needs for the condition, the sponsor may apply for fast track designation. Under the fast track program, the sponsor of a new drug or biologic candidate may request that the FDA designate the candidate for a specific indication as a fast track drug or biologic concurrent with, or after, the submission of the IND for the candidate. The FDA must determine if the drug or biologic candidate qualifies for fast track designation within 60 days of receipt of the sponsor's request. Even if we do apply for and receive fast track designation, we may not experience a faster development, review or approval process compared to conventional FDA procedures. The FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program. We may also seek accelerated approval for products that have obtained fast track designation. Under the FDA's fast track and accelerated approval programs, the FDA may approve a drug or biologic for a serious or life-threatening illness that provides meaningful therapeutic benefit to patients over existing treatments based upon 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. For drugs granted accelerated approval, post-marketing confirmatory trials have been required to describe the anticipated effect on irreversible morbidity or mortality or other clinical benefit. These confirmatory trials must be completed with due diligence.

The EMA has three programs, the accelerated assessment (2005), conditional marketing authorization (2006), and the priority medicines scheme (PRIME) (2016). These programs are intended to prioritize the most important medicines for faster access by patients. As part of its marketing authorization process, the EMA may grant conditional marketing authorizations for certain categories of medicinal products on the basis of less complete data than is normally required, when doing so may meet unmet medical needs of patients and may serve the interest of public health. In these cases, it is possible for the Committee for Medicinal Products for Human Use, the CHMP, to recommend the granting of a marketing authorization, subject to certain specific obligations to be reviewed annually, which is referred to as a conditional marketing authorization. This may apply to medicinal products for human use that fall under the jurisdiction of the EMA, including those that aim at the treatment, the prevention, or the medical diagnosis of seriously debilitating diseases or life-threatening diseases and those designated as orphan medicinal products. A conditional marketing authorization may be granted when the CHMP finds that, although comprehensive clinical data referring to the safety and efficacy of the medicinal product have not been supplied, the risk-benefit balance of the medicinal product is positive. The granting of a conditional marketing authorization is restricted to situations in which only the clinical part of the application is not yet fully complete. Incomplete preclinical or quality data may only be accepted if duly justified and only in the case of a product intended to be used in emergency situations in response to public-health threats. Conditional marketing authorizations are valid for one year, on a renewable basis. The holder will be required to complete ongoing trials or to conduct new trials with a view to confirming that the benefit-risk balance is positive. In addition, specific obligations may be imposed in relation to the collection of pharmacovigilance data. Granting a conditional marketing authorization allows medicines to reach patients with unmet medical needs earlier than might otherwise be the case and will ensure that additional data on a product are generated, submitted, assessed and acted upon. Although we may seek a conditional marketing authorization for our therapeutic candidates, the EMA or CHMP may ultimately not agree that the requirements for conditional marketing authorization have been satisfied and hence delay the commercialization of our therapeutic candidates.

In the European Union, accelerated assessment can reduce the timeframe for EMA's CHMP to review a marketing-authorization application. Applications may be eligible for accelerated assessment if the CHMP decides the product is of major interest for public health and therapeutic innovation. The evaluation of a marketing-authorization application can take up to 210 days. However, the CHMP can reduce the timeframe to 150 days if the applicant can provide sufficient justification for an accelerated assessment. The PRIority MEdicines Scheme (PRIME) was introduced by the EMA in 2016 to support the development of medicines addressing unmet medical needs which offer a therapeutic advantage over existing treatments. To be accepted in the PRIME scheme, the treatments must meet the eligibility criteria for accelerated assessment including a strongly substantiated mechanism of action, supportive preclinical data, and first-in-human tolerance data. PRIME has been compared to the U.S. Breakthrough Therapy Designation.

Withdrawal of expedited approval will delay trials and likely increase cost.

The FDA or EMA may withdraw expedited approval of our therapeutic candidate or indication approved under the accelerated approval pathway if, for example:

- the trial or trials required to verify the predicted clinical benefit of our therapeutic candidate fail to verify such benefit or do not demonstrate sufficient clinical benefit to justify the risks associated with the drug;

- other evidence demonstrates that our therapeutic candidate is not shown to be safe or effective under the conditions of use;
- we fail to conduct any required post-approval trial of our therapeutic candidate with due diligence; or
- we disseminate false or misleading promotional materials relating to the relevant therapeutic candidate.

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

We plan on submit marketing applications in multiple jurisdictions and countries, including the UK, the EU and the United States. Regulatory authorities in each jurisdiction have requirements for approval of therapeutic candidates with which we must comply prior to marketing in those jurisdictions. Obtaining regulatory approvals and compliance with regulatory requirements of multiple jurisdictions and countries could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our therapeutic candidates in certain countries. If we fail to comply with the regulatory requirements in international markets and/or receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of our therapeutic candidates will be harmed.

Obtaining and maintaining regulatory approval of our therapeutic 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. For example, even if the FDA grants marketing approval of our key products in the United States, comparable regulatory authorities in other jurisdictions must also approve the manufacturing, marketing and promotion of our products in those countries. Approval procedures vary among jurisdictions and may require additional preclinical programs or clinical trials. In many jurisdictions a therapeutic 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 therapeutic candidates is also subject to approval.

We may face difficulty in enrolling patients in our clinical trials.

We may find it difficult to enroll patients in our clinical trials. For example, in our TCB-001 clinical trial we experienced a high screen failure rate. Identifying and qualifying patients, including testing of patients for their GD-T cells' proliferation capacity, to participate in clinical trials of our therapeutic candidates, are critical to our success. The timing of our current and future clinical trials depends on the speed at which we can recruit patients to participate in testing our therapeutic candidates. If patients are unwilling to participate in our trial(s) because of negative publicity from adverse reactions or for other reasons, including competitive clinical trials for similar patient populations, the timeline for recruiting patients, conducting trials and obtaining regulatory approval of potential products may be delayed or prevented. These delays could result in increased costs, delays in advancing our product development, delays in testing the effectiveness of our technology or termination of the clinical trials altogether. We may not be able to identify, recruit and enroll a sufficient number of patients, or those with required or desired characteristics to achieve sufficient diversity in a given trial in order to complete our clinical trials in a timely manner. Patient enrolment is affected by factors including:

- eligibility criteria for the trial in question;
- severity of the disease under investigation;
- design of the trial protocol;
- trial duration and number and complexity of visits and procedures;
- size of the patient population;
- perceived risks and benefits of the therapeutic candidate under trial;
- novelty of the therapeutic candidate and acceptance by oncologists;
- proximity and availability of clinical trial sites for prospective patients;
- availability of competing therapies and clinical trials;
- efforts to facilitate timely enrolment in clinical trials;
- patient referral practices of physicians; and
- ability to monitor patients adequately during and after treatment.

If we have difficulty enrolling a sufficient number of patients to conduct our clinical trials as planned, we may need to delay, limit or terminate ongoing or planned clinical trials, any of which would have an adverse effect on our business.

The outcome of clinical trials is uncertain and our clinical trials may fail to demonstrate adequately the safety and efficacy of any of our T cell therapeutic candidates, which would prevent or delay regulatory approval and commercialization.

There is a risk in any clinical trial that side effects from our therapeutic candidates will require a hold on, or termination of, our clinical program(s) or further adjustments to our clinical program(s) in order to progress our therapeutic candidates. Our T cell therapeutic candidates will require evidence that they are safe before permitting clinical trials to commence and evidence that the therapeutic candidates are safe and effective before granting any regulatory approval. In particular, because our therapeutic candidates are subject to regulation as biological products, we will need to demonstrate that they are safe, pure and potent for use in each target indication. The therapeutic candidate must demonstrate an acceptable risk versus benefit profile in its intended patient population and for its intended use. The risk/benefit profile required for product licensure will vary depending on these factors and may include not only the ability to show tumor shrinkage, but also adequate duration of response, a delay in the progression of the disease and/or an improvement in survival. For example, response rates from the use of our therapeutic candidates will not be sufficient to obtain regulatory approval unless we can also show an adequate duration of response.

We may not be able to submit INDs, or the foreign equivalent outside of the United States, to continue our CAR-T clinical trials.

We are currently conducting clinical development of our CAR-T therapeutic candidates. Progression of our CAR-T therapeutic candidates from pre- to clinical development (first-in-human, phase 1) is inherently risky and dependent on the results obtained in preclinical programs, the results of other clinical programs and results of

third-party programs that utilize common components used for production and administration of our therapeutic candidates. If results are not available when expected or problems are identified during therapy development, we may experience significant delays in development of pipeline products and of existing clinical programs, which may impact our ability to receive regulatory approval. This may also impact our ability to achieve certain financial milestones and the expected timeframes to market any of our therapeutic candidates. Failure to submit further INDs or the foreign equivalent and commence additional clinical programs will significantly limit our opportunity to generate revenue.

Our research and development efforts may not result in the progression of our product candidates into clinical trials.

Our research and development efforts and our selection of the product candidates to pursue remain subject to all of the risks associated with the development of new treatment modalities. Development of the underlying technology may be affected by unanticipated technical or other problems, among other development and research issues, and the possible insufficiency of funds needed in order to complete development of these products. Safety, regulatory and efficacy issues, clinical hurdles or challenges also may result in delays and cause us to incur additional expenses that will increase our need for capital and result in additional losses. If we cannot complete, or if we experience significant delays in developing our medical products for use in potential commercial applications, particularly after incurring significant expenditures, our business may fail and investors may lose the entirety of their investment.

We will need to obtain regulatory approval for our product candidates, which is time consuming, costly and complicated. We may not obtain regulatory approval.

We cannot commercialize a product candidate until the appropriate regulatory authorities have reviewed and approved the product candidate. Approval by the FDA and comparable foreign regulatory authorities is lengthy and unpredictable, and depends upon numerous factors. Approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions, which may cause delays in the approval or the decision not to approve an application. We have not obtained regulatory approval for any product candidate, and it is possible that any of our product candidates will never obtain regulatory approval.

Applications for product candidates we may develop could fail to receive regulatory approval for many reasons. For example, under FDA regulation, approval may not be obtained for many reasons such as:

- our inability to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate we may develop is safe and effective;
- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- the population studied in the clinical program may not be sufficiently broad or representative to assure safety in the full population for which we seek approval;
- the FDA's or comparable foreign regulatory authorities' requirement for additional preclinical studies or clinical trials;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from nonclinical studies or clinical trials;

- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of a new drug application, or NDA, or other submission for regulatory approval in the United States or elsewhere;
- we may be unable to demonstrate to the FDA or comparable foreign regulatory authorities that a product candidate's risk-benefit ratio for its proposed indication is acceptable;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes, test procedures and specifications, or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may change in a manner that renders our clinical trial design or data insufficient for approval.

The lengthy approval process, as well as the unpredictability of the results of clinical trials, may result in our failing to obtain regulatory approval to market a product candidate in the United States or elsewhere, which would significantly harm our business, prospects, financial condition and results of operations

We are heavily dependent on the success of our lead product candidates, TCB008-001, TCB008-002, TCB005. TCB006 and TCB009. If we are unable to successfully complete clinical development, obtain regulatory approval for, or commercialize these products, or experience delays in doing so, our business will be materially harmed.

Our future success is dependent on our ability to successfully develop, obtain regulatory approval for, and commercialize the aforementioned products which are in various early stages of development. Before we can generate any revenues from sales of the products, we may be required to conduct additional clinical development, including, among other things, additional toxicology studies before we can conduct longer-term clinical trials and a larger pivotal clinical trial if our clinical trial of these products is successful, seek and obtain regulatory approval, secure adequate manufacturing supply to support larger clinical trials and commercial sales and build a commercial organization. Further, the success of these products will depend on patent and trade secret protection, acceptance of these products by patients, the medical community and third-party payers, its ability to compete with other therapies, healthcare coverage and reimbursement, and maintenance of an acceptable safety profile following approval, among other factors. If we do not achieve any of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize these products which may materially harm our business.

Laboratory conditions differ from clinical conditions and commercial conditions, which could affect the effectiveness of our potential products. Failures to effectively move from laboratory to the field would harm our business.

Observations and developments that may be achievable under laboratory circumstances may not be replicated in commercial settings or in the use of any of the proposed products in the field. The failure of our product candidates under development or other future product candidates to be able to be tested, approved and manufactured in available manufacturing facilities or to be able to meet the demands of users in the field would harm our business.

Results of earlier studies may not be predictive of future clinical trial results, and initial studies may not establish an adequate safety or efficacy profile for our drugs and other product candidates that we may pursue to justify proceeding to advanced clinical trials or an application for regulatory approval.

The results of preclinical studies and clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials, and interim results of a clinical trial do not necessarily predict final results. Additionally, any positive results generated in our Phase 1b/2a clinical trials in adults would not ensure that we will achieve similar results in larger, pivotal clinical trials or in clinical trials in general populations. In addition, preclinical and clinical data are often susceptible to various interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy despite having progressed through nonclinical studies and initial clinical trials. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier studies, and we cannot be certain that we will not face similar setbacks. Even if early-stage clinical trials are

successful, we may need to conduct additional clinical trials for product candidates in additional patient populations or under different treatment conditions before we are able to seek approvals from the FDA and regulatory authorities outside the United States to market and sell these product candidates. Our failure to demonstrate the required characteristics to support marketing approval for our product candidates in any ongoing or future clinical trials would substantially harm our business, prospects, financial condition and results of operations.

We manufacture and test all our therapeutic candidates in-house, and may experience logistic issues.

The manufacture, testing and release of TCB's cell therapies for clinical trials may not meet with the regulatory requirements and result in the delay of clinical trials. Logistical issues which may prevent timely completion of manufacture and testing include:

- failure in integrity of facility infrastructure;
- failure of High Efficiency Particular Absorbing (HEPA) filters to prevent airborne cross-contamination;
- delays in the procuring test materials/reagents due to supplier, shipping issues or discontinued supply;
- failure by third parties to notify a change in material product specifications that are not GMP compliant;
- redundant equipment (or parts) used within the manufacturing process;
- equipment failure within production, quality control and stores;
- failure of quality control equipment;
- delays in cleanroom supplies from third parties such as PPE or cleaning reagents;
- failure in the cleanroom resulting in insufficient quantities of our product candidates being available to the clinical sites;
- increase in our costs of materials;
- delays in final product release testing being conducted within product shelf-life of 36 hours;
- released in 'real time' which means that safety testing is incomplete when administered to the patient resulting in contaminated product being released to the clinic;
- failure due to resource issues associated with personnel illness; and
- failure in recruitment of cleanroom operators and quality staff as we progress through clinical trials.

We conduct and manage clinical studies using internal staff trained to perform such studies and loss of these staff may delay our clinical program.

We are highly dependent upon the principal members of our management team and the members of our scientific team. These persons have significant experience and knowledge within our operational sector, and the loss of any team member could impair our ability to design, identify, and develop clinical trials, new intellectual property and new scientific or product ideas.

We expect to operate in a highly competitive, ever evolving, market.

The broader market for our products is becoming more focused and potentially more competitive. Over time, we believe this field will become subject to more rapid change and new drugs, therapies and other products will emerge. We may not be able to compete effectively against these companies or their products. We may find ourselves in competition with companies that have competitive advantages over us, such as:

- significantly greater name recognition;
- established relations with healthcare professionals, customers and third-party payors;
- established distribution networks;
- additional lines of products, and the ability to offer rebates, higher discounts or incentives to gain a competitive advantage;
- greater experience in conducting research and development, manufacturing, clinical trials, obtaining regulatory approval for products, and marketing approved products; and
- greater financial and human resources for product development, sales and marketing, and patent litigation.

Rapidly changing medical technology within the life sciences could make the product candidates that we are developing obsolete.

The medical industry is characterized by rapid and significant medical technological and therapy changes, frequent new product candidates and product introductions and enhancements and evolving industry standards. Our future success will depend on our ability to continually develop and then improve the product candidates that we design and to develop and introduce new product candidates that address the evolving needs of the physicians and patients on a timely and cost-effective basis. Any new product candidates and products developed by us may not be accepted in the intended markets. Our inability to gain market acceptance of new products could harm our future operating results.

The market opportunities for certain of our product candidates may be small, due to the fact that the products may be limited to those patients who are ineligible for or have failed prior treatments, and our projections regarding the size of the addressable market may be incorrect.

Cancer therapies are sometimes characterized as first line, second line or third line, and the FDA often approves new therapies initially only for third line use. When blood cancers are detected, they are treated with first line of therapy with the intention of curing the cancer. This generally consists of chemotherapy, radiation, antibody drugs,

tumor targeted small molecules, or a combination of these. In addition, sometimes a bone marrow transplantation can be added to the first line therapy after the combination chemotherapy is given. If the patient's cancer relapses, then they are given a second line or third line therapy, which can consist of more chemotherapy, radiation, antibody drugs, tumor targeted small molecules, or a combination of these, or bone marrow transplant. Generally, the higher the line of therapy, the lower the chance of a cure. With third or higher line, the goal of the therapy in the treatment of lymphoma and myeloma is to control the growth of the tumor and extend the life of the patient, as a cure is unlikely to happen. Patients are generally referred to clinical trials in these situations.

Our projections of both the number of people who have the cancers we are targeting, as well as the size of the patient population subset of people with these cancers in a position to receive first, second, third and fourth line therapy and who have the potential to benefit from treatment with our product candidates, are based on our beliefs and estimates. These estimates have been derived from a variety of sources, including scientific literature, surveys of clinics, patient foundations, or market research and may prove to be incorrect. Further, new studies may change the estimated incidence or prevalence of these cancers. The number of patients may turn out to be fewer than expected. Additionally, the potentially addressable patient population for our product candidates may be limited or may not be amenable to treatment with our product candidates. Even if we obtain significant market share for our product candidates, because the potential target populations are small, we may never achieve significant revenues without obtaining regulatory approval for additional indications or as part of earlier lines of therapy.

We rely on third parties to support our clinical trials. If these third parties do not 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 depend and will continue to depend upon independent investigators and collaborators, such as universities, medical institutions, CROs and strategic partners to support our and clinical trials under agreements with the Company.

We negotiate budgets and contracts with CROs and study sites, 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 clinical trials, and we control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with applicable protocol, legal, regulatory and scientific standards, and its reliance on third parties does not relieve us of our regulatory responsibilities. TCB and these third parties are required to comply with GCPs, which are regulations and guidelines enforced by 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, our clinical trials must be conducted with biologic product produced under cGMPs and will require a large number of test patients. 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 violates federal or state fraud and abuse or false claims laws and regulations or healthcare privacy and security laws.

Any third parties supporting our clinical trials are 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 preclinical, clinical and nonclinical programs. These third parties may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical studies or other drug 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.

If any of our relationships with trial sites, or any CRO that we may use in the future, terminates, we may not be able to enter into arrangements with alternative trial sites or CROs or do so on commercially reasonable terms. Switching or adding third parties to conduct our clinical trials will involve substantial cost and require 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 its desired clinical development timelines.

We do not have any current sales, marketing, commercial manufacturing and distribution capabilities or arrangements, and will need to create these as we move towards commercialization of our products.

We do not yet have commercial sales, marketing, manufacturing and distribution capabilities or arrangements. We will need to develop all of the foregoing or partner with organizations who have expertise in all the foregoing. We do not have any corporate experience in establishing these commercial sized capabilities. We believe that setting up the commercialization aspects of a company such as ours, in our field, will take a substantial amount of capital and time. Therefore, we may seek development and marketing partners and license our drug technologies or product candidates to others in order to avoid our having to provide the marketing, manufacturing and distribution capabilities within our organization. There can be no assurance that we will find any development and marketing partners or companies that are interested in licensing our drug technology or any of our product candidates or products. If we are unable to establish and maintain adequate sales, marketing, manufacturing and distribution capabilities, independently or with others, we will not be able to generate product revenue, and may not become profitable.

We may rely on third parties to manufacture our clinical product supplies, and we may have to rely on third parties to produce and process our product candidates, if approved.

Although to date, we have used our internal capabilities to manufacture clinical trial supplies, wedo not yet have sufficient information to reliably estimate the cost of commercially manufacturing and processing of our product candidates. The actual cost to manufacture and process our product candidates could materially and adversely affect the commercial viability of our product candidates. As a result, we may never be able to develop a commercially viable product.

We anticipate that we will rely on a limited number of third-party manufacturers for commercial production, but this will expose us to the following risks.

- We may be unable to identify manufacturers on acceptable terms or at all because the number of potential manufacturers is limited and the regulatory authorities may have questions regarding any replacement contractor. This may require new testing and regulatory interactions. In addition, a new manufacturer would have to be educated in, or develop substantially equivalent processes for, production of our products.

- Third-party manufacturers might be unable to timely formulate and manufacture our product or produce the quantity and quality required to meet our clinical and commercial needs, if any.

- Future contract manufacturers may not perform as agreed or may not remain in the contract manufacturing business for the time required to supply our clinical trials or to successfully produce, store and distribute our products.

- Manufacturers are subject to strict compliance with cGMP and other government regulations and corresponding foreign standards. We do not have control over third-party manufacturers' compliance with these regulations and standards.

- We may not own, or may have to share, the intellectual property rights to any improvements made by our third-party manufacturers in the manufacturing process for our products.

- Third-party manufacturers could breach or terminate their agreement(s) with us.

Contract manufacturers would also be subject to the same risks we face in developing our own manufacturing capabilities, as described above. Each of these risks could delay our clinical trials, the regulatory approval, if any, of our product candidates or the commercialization of our product candidates or result in higher costs or deprive us of potential product revenue. In addition, we will rely on third parties to perform release tests on our product candidates prior to delivery to patients. If these tests are not appropriately done and test data are not reliable, patients could be put at risk of serious harm.

Cell-based therapies rely on the availability of specialty raw materials, which may not be available to us on acceptable terms or at all.

Our product candidates require many specialty raw materials, including viral vectors that deliver the targeting moiety (CAR) and other genes to the product candidate. We currently manufacture some of our requirements through contract manufacturers, some of which are manufactured by companies with limited resources and experience to support a commercial product, and the suppliers may not be able to deliver raw materials to our specifications. In addition, those suppliers normally support blood-based hospital businesses and generally do not have the capacity to support commercial products manufactured under cGMP by biopharmaceutical firms. The suppliers may be ill-equipped to support our needs, especially in non-routine circumstances like an FDA inspection or medical crisis, such as widespread contamination. We also do not have contracts with many of these suppliers, and we may not be able to contract with them on acceptable terms or at all. Accordingly, we may experience delays in receiving key raw materials to support clinical or commercial manufacturing.

In addition, some raw materials utilized in the manufacture of our candidates are currently available from a single supplier, or a small number of suppliers. For example, principal suppliers for the purchase of equipment and reagents critical for the manufacture of our product candidates include Cytiva (Global Life Sciences Solutions Operations UK Ltd), Wilson Wolf Manufacturing Corporation, Phoenix Labs, Nova Biologics, Inc., Sexton Biotechnologies and other suppliers. We cannot be sure that these suppliers will remain in business or that they will not be purchased by one of our competitors or another company that is not interested in continuing to produce these materials for our intended purpose. In addition, the lead time needed to establish a relationship with a new supplier can be lengthy, and we may experience delays in meeting demand in the event that we must switch to a new supplier. The time and effort to qualify a new supplier could result in additional costs, diversion of resources or reduced manufacturing yields, any of which would negatively impact our operating results. Further, we may be unable to enter into agreements with a new supplier on commercially reasonable terms, which could have a material adverse impact on our business.

Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face an even greater risk if we commercially sell any products that we may develop. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- reduced resources of our management to pursue our business strategy;

- decreased demand for any product candidates or products that we may develop;

- injury to our reputation and significant negative media attention;

- withdrawal of clinical trial participants;

- initiation of investigations by regulators;

- product recalls, withdrawals or labelling, marketing or promotional restrictions;

- significant costs to defend the resulting litigation;

- substantial monetary awards paid to clinical trial participants or patients;

- loss of revenue; and

- the inability to commercialize any products that we may develop.

We currently hold £5.0 million in clinical study liability annual insurance cover for each clinical study, with a per patient limit of £5.0 million, which may not be adequate to cover all liabilities that we may incur. We may need to increase our insurance coverage as we expand our clinical trials or if we commence commercialization of our product candidates. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

Risks Related to Governmental Regulations

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 and file income tax returns in multiple jurisdictions. Our consolidated effective income tax rate 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 OECD, 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 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 increase the estimated tax liability that we have expensed to date and paid or accrued on our balance sheets, and otherwise 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.

Changes in our business strategy or operations may result in grant income being repaid to government grant awarding bodies

We have been awarded and received grant income from government agencies with respect to a number of research and development programs totaling £5.6 million since incorporation through December 31, 2020. In some cases, the grant award contains commitments for the business that extend beyond the specific program period. If the Company changes strategy or the nature of its operations, some grant awarding bodies may view this as a breach of the original terms of the grant and all or part of the original grant award may become subject to repayment. In the event of our having to return funds under prior grant awards, the Company may be required to repay up to an aggregate of £5.6 million.

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 United States Internal Revenue Service, the IRS, or another tax authority could challenge our allocation of income by tax jurisdiction and the amounts paid between our affiliated companies pursuant to our intercompany arrangements and transfer pricing policies, including amounts paid with respect to our intellectual property development. 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. High-profile companies can be particularly vulnerable to aggressive application of unclear requirements. Many companies must negotiate their tax bills with tax inspectors who may demand higher taxes than applicable law appears to provide. 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.

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 UK tax legislation.

As a UK incorporated and tax resident entity, we are subject to UK corporate taxation. Due to the nature of our business, we have generated losses since inception and therefore have not paid any UK corporation tax. As of December 31, 2020, we had cumulative carryforward tax trading losses of £12.8 million. Subject to any relevant utilization 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. The use of loss carryforwards in relation to UK profits incurred on or after April 1, 2017 will be limited each year to £5.0 million per group plus, broadly, an incremental 50% of UK taxable profits.

As a company that carries out extensive research and development activities, we seek to benefit from the UK 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 the trading losses that arise from our qualifying research and development activities for a cash rebate of up to 33.35% of such qualifying research and development expenditures. The majority of our research, clinical trials management and manufacturing development activities are eligible for inclusion within these tax credit cash rebate claims. We may not be able to continue to claim payable research and development tax credits in the future if we cease to qualify as a SME, based on size criteria concerning employee headcount, turnover and gross assets.

We may benefit in the future from the UK'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. We own several patents which cover our investigational therapies, and accordingly, future upfront fees, milestone fees, product revenue and royalties could be eligible for this 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 UK 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.

Failure to comply with United States health and data protection laws and regulations could lead to enforcement actions, including civil or criminal penalties, private litigation, and adverse publicity and could negatively affect our operating results and business.

We and any potential collaborators are subject to data protection laws and regulations, such as laws and regulations that address privacy and data security. In the United States, numerous federal and state laws and regulations, including state data breach notification laws, state health information privacy laws, and federal and state consumer protection laws, govern the collection, use, disclosure, and protection of health-related and other personal information. In addition, we may obtain health information from third parties, including research institutions from which we obtain clinical trial data, which are subject to privacy and security requirements under HIPAA, as amended by HITECH. To the extent that we act as a business associate to a healthcare provider engaging in electronic transactions, we may also be subject to the privacy and security provisions of HIPAA, as amended by HITECH, which restricts the use and disclosure of patient-identifiable health information, mandates the adoption of standards relating to the privacy and security of patient-identifiable health information, and requires the reporting of certain security breaches to healthcare provider customers with respect to such information. Additionally, many states have enacted similar laws that may impose more stringent requirements on entities like ours. Depending on the facts and circumstances, we could be subject to significant civil, criminal, and administrative penalties if we obtain, use, or disclose individually identifiable health information maintained by a HIPAA-covered entity in a manner that is not authorized or permitted by HIPAA.

Additionally, in June 2018, the State of California enacted the California Consumer Privacy Act of 2018, or CCPA, which came into effect on January 1, 2020 and provides new data privacy rights for consumers (as that term is broadly defined) and new operational requirements for companies, which may increase our compliance costs and potential liability. 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. While there is currently an exception for protected health information that is subject to HIPAA and clinical trial regulations, as currently written, the CCPA may impact certain of our business activities. The CCPA could mark the beginning of a trend toward more stringent state privacy legislation in the United States, which could increase our potential liability and adversely affect our business.

Compliance with U.S. and foreign privacy and data protection laws and regulations could require us to take on more onerous obligations in our contracts, restrict our ability to collect, use and disclose data, or in some cases, impact our ability to operate in certain jurisdictions. Failure to comply with these laws and regulations could result in government enforcement actions (which could include civil, criminal and administrative penalties), private litigation, and/or adverse publicity and could negatively affect our operating results and business. Moreover, clinical trial subjects, employees and other individuals about whom we or our potential collaborators obtain personal information, as well as the providers who share this information with us, may limit our ability to collect, 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

and could result in adverse publicity that could harm our business.

European data collection is governed by restrictive privacy and security regulations governing the use, processing and cross-border transfer of personal information.

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/or (ii) carried out in the context of the activities of our establishment in any EU member state, is subject to the EU General Data Protection Regulation, or GDPR, which became effective on May 25, 2018, as well as other national data protection legislation in force in relevant member states (including the Data Protection Act 2018 in the UK).

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 also imposes strict rules on the transfer of personal data to countries outside the EEA, including the United States, and permits data protection authorities to impose large penalties for violations of the GDPR, including potential fines of up to €20 million or 4% of annual global revenue, whichever is greater. The GDPR provides individuals with various rights in respect of their personal data, including rights of access, erasure, portability, rectification, restriction and objection. The GDPR also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR.

The GDPR may increase our responsibility and liability in relation to personal data that we process where such processing is subject to the GDPR. While we have taken steps to comply with the GDPR, and implementing legislation in applicable EU member states, including by seeking to establish appropriate lawful bases for the various processing activities we carry out as a controller or joint controller, reviewing our security procedures and those of our vendors and collaborators, and entering into data processing agreements with relevant vendors and collaborators, we cannot be certain that our efforts to achieve and remain in compliance have been, and/or will continue to be, fully successful.

Following the UK's withdrawal from the EU on January 31, 2020 and following the end the of the transitional arrangements on December 31, 2020, it is likely that the data protection obligations of the GDPR will continue to apply to UK-based organizations' processing of personal data in substantially unvaried form, for at least the short term thereafter.

Risks Related to Our Business Operations, Managing Growth and Employee Matters

We may have difficulty managing growth in our business.

Because of our small size, growth in accordance with our business plan, if achieved, will place a significant strain on our financial, technical, operational and management resources. As we expand our activities, there will be additional demands on these resources. The failure to continue to upgrade our technical, administrative, operating and financial control systems or the occurrence of unexpected expansion difficulties, including issues relating to our research and development activities and retention of experienced scientists, managers and engineers, could have a material adverse effect on our business, financial condition and results of operations and our ability to timely execute our business plan. If we are unable to implement these actions in a timely manner, our results may be adversely affected.

We depend upon our key personnel and our ability to attract and retain employees

We are heavily dependent on the ongoing employment and involvement of certain key employees. These include (i) Dr Michael Leek, our current Chief Executive Officer and Chairman (who is expected to become the Executive Chairman of the Board after the completion of this offering), (ii) Angela Scott, our Chief Operating Officer, (iii) Bryan Kobel, our recently appointed Chief Executive Officer of our future North American operations and who is expected to serve as our group Chief Executive Officer after the completion of this offering, and (iv) Sebastian Wanless, our head our clinical efforts in the United Kingdom, Europe and North America. In response to this dependence, we are arranging to have appropriate key man insurance in place on these individuals immediately prior to the completion of this offering.

Dr Michael Leek and Angela Scott are married. They are our co-founders, our two most senior and experienced executive officers and are a vital part of our business. If the marriage ended or they could otherwise not amicably work with each other, one of them may decide to leave us which would materially harm our business.

We anticipate a requirement to expand our current personnel, who will be based in the UK, the EU and the USA, very rapidly in order to achieve our planned business activities and aims to further engage in clinical trials. Such expansion is dependent on our ability to recruit experienced and suitably trained employees or consultants, and to retain such employees on a long-term basis. Our ability to take our existing pipeline of GD-T cell therapeutics and to meet the demands of our clinical programs may be compromised or delayed if we are unable to recruit sufficient personnel on a timely basis.

The loss of key managers and senior scientists could delay our research and development activities. In addition, our ability to compete in the highly competitive pharmaceutical industry depends upon our ability to attract and retain highly qualified management, scientific and medical personnel. Many other companies and academic institutions that we compete against for qualified personnel have greater financial and other resources, different risk profiles and a longer history in the industry than we do. Therefore, we might not be able to attract or retain these key persons on conditions that are economically acceptable. Moreover, some qualified prospective employees may choose not to work for us due to negative perceptions regarding the therapeutic use of psilocybin or other objections to the therapeutic use of a controlled substance. Furthermore, we will need to recruit new managers and qualified scientific personnel to develop our business if we expand into fields that will require additional skills. Our inability to attract and retain these key persons could prevent us from achieving our objectives and implementing our business strategy, which could have a material adverse effect on our business and prospects.

In addition, certain key academic and scientific personnel play a pivotal role in our collaborative partners' research and development activities. If any of those key academic and scientific personnel who work on development of our research programs, our investigational GD-T cell therapy and any future therapeutic candidates leave our collaborative partners, the development of our research programs, our investigational GD-T cell therapy and any future therapeutic candidates may be delayed or otherwise adversely affected.

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

As of the date of this prospectus, we had 68 full-time equivalent employees. As our development and commercialization plans and strategies develop, and as we transition into operating as a public company, we will have to add a significant number of additional managerial, operational, financial, and other personnel. Future growth will 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 regulatory review process for our GD-T therapeutic 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 our GD-T therapeutic 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 fail to maintain proper and effective internal controls, our ability to produce accurate financial statements on a timely basis could be impaired, which would adversely affect our business and our stock price.

Ensuring that we have adequate internal financial and accounting controls and procedures in place to produce accurate financial statements on a timely basis is a costly and time-consuming effort that needs to be re-evaluated frequently. We may discover material weaknesses in our internal financial and accounting controls and procedures that need improvement from time to time.

Management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes. Management does not expect that our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within our company will have been detected.

We will be required to comply with Section 404 of the Sarbanes-Oxley Act in connection with our SEC reports. We expect to expend significant resources in developing the necessary documentation and testing procedures required by Section 404. We cannot be certain that the actions we will be taking to improve our internal controls over financial reporting will be sufficient, or that we will be able to implement our planned processes and procedures in a timely manner. In addition, if we are unable to produce accurate financial statements on a timely basis, investors could lose confidence in the reliability of our financial statements, which could cause the market price of our ordinary shares to decline and make it more difficult for us to finance our operations and growth.

A pandemic, epidemic, or outbreak of an infectious disease, such as the COVID-19 pandemic, may materially and adversely affect our business, including our preclinical studies, clinical trials, third parties on whom we rely, our supply chain, our ability to raise capital, our ability to conduct regular business and our financial results.

We are subject to risks related to public health crises such as the COVID-19 pandemic. The COVID-19 pandemic continues throughout the world. The pandemic and policies and regulations implemented by governments in response to the pandemic, often directing businesses and governmental agencies to cease non-essential operations at physical locations, prohibiting certain nonessential gatherings and ceasing non-essential travel have also 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 service and supplies, has spiked, while demand for other goods and services, such as travel, has fallen. The full extent to which COVID-19 will ultimately impact our business, preclinical trials and financial results will depend on future developments, which are highly uncertain and cannot be accurately predicted, including new information which may emerge concerning the severity of COVID-19 and the actions to contain COVID-19 or treat its impact, among others. Global health concerns, such as the COVID-19 pandemic, could also result in social, economic, and labor instability in the countries in which we or the third parties with whom we engage operate.

In response to the COVID-19 pandemic, we have taken temporary precautionary measures intended to help minimize the risk of the virus to our employees, including temporarily requiring all employees to work remotely, suspending all non-essential travel worldwide for our employees and discouraging employee attendance at industry events and in-person work-related meetings, all of which could negatively affect our business. The extent of the impact of the COVID-19 pandemic on our preclinical studies or clinical trial operations, our supply chain and manufacturing and our office-based business operations, will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the duration of the pandemic, the severity of the COVID-19 pandemic, or the effectiveness of actions to contain and treat coronavirus.

While we are working closely with our third-party manufacturers, distributors and other partners to manage our supply chain activities and mitigate potential disruptions to current and any future therapeutic candidates as a result of the COVID-19 pandemic, if the COVID-19 pandemic continues and persists for an extended period of time, we expect there will be significant and material disruptions to our supply chain and operations, and associated delays in the manufacturing and supply of current and any future therapeutic candidates. Any such supply disruptions would adversely impact our ability to generate sales of and revenue from our approved products and our business, financial condition, results of operations and growth prospects could be materially adversely affected.

The COVID-19 pandemic may also affect employees of third-party CROs located in affected geographies that we rely upon to carry out our clinical trials. As COVID-19 continues to be present and spread around the globe, we may experience additional disruptions that could severely impact our business and clinical trials, including:

- delays or difficulties in enrolling patients in our clinical trials;

- delays or difficulties in clinical site initiation, including difficulties in recruiting clinical site investigators and clinical site staff;

- diversion of healthcare resources away from the conduct of clinical trials, including the diversion of sites or facilities serving as our clinical trial sites and staff supporting the conduct of our clinical trials, including our trained therapists, or absenteeism due to the COVID-19 pandemic that reduces site resources;

- interruption of key clinical trial activities, such as clinical trial site monitoring, due to limitations on travel imposed or recommended by federal, state or national governments, employers and others or interruption of clinical trial subject visits and study procedures, the occurrence of which could affect the integrity of clinical trial data;

- risk that participants enrolled in our clinical trials will acquire COVID-19 while the clinical trial is ongoing, which could impact the results of the clinical trial, including by increasing the number of observed adverse events or patient withdrawals from our trials;

- limitations in employee resources that would otherwise be focused on conducting our clinical trials, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people;

- delays in receiving authorizations from regulatory authorities to initiate our planned clinical trials;

- delays in clinical sites receiving the supplies and materials needed to conduct our clinical trials;

- interruption in global shipping that may affect the transport of clinical trial materials, such as the cell therapy used in our clinical trials;
- 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 the discontinuation of the clinical trials altogether;
- interruptions or delays in preclinical studies due to restricted or limited operations at research and development laboratory facilities;
- 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; and
- refusal of the FDA, the EMA, the MHRA or the other regulatory bodies to accept data from clinical trials in affected geographies outside the United States or the EU or other relevant local geography.

Any negative impact the COVID-19 pandemic has on patient enrolment or treatment or the development of our investigational cell therapies and any future therapeutic candidates could cause costly delays to clinical trial activities, which could adversely affect our ability to obtain regulatory approval for and to commercialize our investigational cell therapies and any future therapeutic candidates, if approved, increase our operating expenses, and have a material adverse effect on our financial results.

The COVID-19 pandemic has also caused significant volatility in public equity markets and disruptions to the United States and global economies. This increased volatility and economic dislocation may make it more difficult for us to raise capital on favorable terms, or at all. We cannot currently predict the scope and severity of any potential business shutdowns or disruptions. If we or any of the third parties with whom we engage, however, 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 negatively affected, which could have a material adverse impact on our business and our results of operations and financial conditions. To the extent the COVID-19 pandemic adversely affects our business and financial results, it may also heighten many of the other risks described in this "Risk Factors" section, such as those relating to the timing and completion of our clinical trials and our ability to obtain future financing.

Our current operations are headquartered in one location, and we or the third parties upon whom we depend may be adversely affected by unplanned natural disasters, as well as occurrences of civil unrest, and our business continuity and disaster recovery plans may not adequately protect us from a serious disaster, including earthquakes, outbreak of disease or other natural disasters.

Our current business operations are headquartered in our offices in Glasgow, UK, with an additional office in Leiden in the Netherlands. Any unplanned event, such as flood, fire, explosion, earthquake, extreme weather condition, medical epidemics, power shortage, telecommunication failure or other natural or man-made accidents or incidents, including events of civil unrest that result in us being unable to fully utilize our facilities, or the manufacturing facilities of our third-party contract manufacturers, may have a material and adverse effect on our ability to operate our business, particularly on a daily basis, and have significant negative consequences on our financial and operating conditions. Loss of access to these facilities may result in increased costs, delays in the development of our investigational GD-T cell therapy or any future therapeutic candidates or interruption of our business operations.

The disaster recovery and business continuity plans we have in place may prove inadequate in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our disaster recovery and business continuity plans, which, could have a material adverse effect on our business. As part of our risk management policy, we maintain insurance coverage at levels that we believe are appropriate for our business, but in the final result may not be sufficient to satisfy any damages and losses.

The increasing use of social media platforms presents new risks and challenges.

Social media is increasingly being used to communicate about our clinical development programs and the diseases our investigational GD-T cell therapy or any future therapeutic candidates are being developed to treat, and we may use appropriate social media in connection with our commercialization efforts of our investigational GD-T cell therapy following approval of our GTT cell therapy or any future therapeutic candidates, if any. Social media practices in the biopharmaceutical industry continue to evolve, and regulations and regulatory guidance relating to such use are evolving and not always clear. This evolution creates uncertainty and risk of noncompliance with regulations applicable to our business, resulting in potential regulatory actions against us, along with the potential for litigation related to certain prohibited activities. For example, patients may use social media channels to comment on their experience in an ongoing clinical trial or to report an alleged adverse event. When such disclosures occur, there is a risk that trial enrolment may be adversely impacted, we fail to monitor and comply with applicable adverse event reporting obligations, or that we may not be able to defend our business or the public's legitimate interests in the face of the political and market pressures generated by social media due to restrictions on what we may say about our investigational GD-T cell therapy or any future therapeutic candidates. There is also a risk of inappropriate disclosure of sensitive information or negative or inaccurate posts or comments about us on any social networking website. If any of these events were to occur or we otherwise fail to comply with applicable regulations, we could incur liability, face regulatory actions or incur other harm to our business.

Risks Related to Intellectual Property

If we or our licensors are unable to protect our/their intellectual property, then our financial condition, results of operations and the value of our drug technology and product candidates could be adversely affected.

Patents and other proprietary rights are essential to our business, and our ability to compete effectively with other companies is dependent upon the proprietary nature of our drug technologies and product candidates. We also rely upon trade secrets, know-how, continuing innovations and licensing opportunities to develop, maintain and strengthen our competitive position. We seek to protect these, in part, through confidentiality agreements with employees, consultants and other parties. Our success will depend in part on the ability of TCB and our licensors to obtain, to maintain (including making periodic filings and payments) and to enforce patent protection for the licensed intellectual property, in particular, those patents to which we have secured rights. We, and our licensors, may not successfully prosecute or continue to prosecute the patent applications which we have licensed. Even if patents are issued in respect of these patent applications, TCB or our licensors may fail to maintain these patents, may determine not to pursue litigation against entities that are infringing upon these patents, or may pursue such enforcement less aggressively than we ordinarily would for our own patents. Without adequate protection for the intellectual property that we own or license, other companies might be able to offer substantially identical products for sale, which could unfavorably affect our competitive business position and harm our business prospects. Even if issued, patents may be challenged, invalidated, or circumvented, which could limit our ability to stop competitors from marketing similar products or limit the length of term of patent protection that we may have for our products.

Litigation or third-party claims of intellectual property infringement or challenges to the validity of our patents would require us to use resources to protect our rights and may prevent or delay our development, regulatory approval or commercialization of our product candidates.

If we are the target of claims by third parties asserting that our product candidates and products or intellectual property infringe upon the rights of others we may be forced to incur substantial expenses or divert substantial employee resources from our current business endeavors. If successful, those claims could result in our having to pay substantial damages or could prevent us from developing one or more product candidates or commercializing a product. Further, if a patent infringement suit were brought

against us or our collaborators, we or they could be forced to stop or delay research, development, manufacturing or sales of the product candidate or product that is the subject of the suit.

If we or our collaborators experience patent infringement claims, or if we elect to avoid potential claims others may be able to assert, we or our collaborators may choose to seek, or be required to seek, a license from the third-party and would most likely be required to pay license fees or royalties or both. These licenses may not be available on acceptable terms, or at all. Even if we or our collaborators were able to obtain a license, the rights may be nonexclusive, which would give our competitors access to the same intellectual property. Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations if, as a result of actual or threatened patent infringement claims, we or our collaborators are unable to enter into licenses on acceptable terms. This could harm our business significantly. The cost to us of any litigation or other proceeding, regardless of its merit, even if resolved in our favor, could be substantial. Some of our competitors may be able to bear the costs of such litigation or proceedings more effectively than we can because of their having greater financial resources. 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. Intellectual property litigation and other proceedings may, regardless of their merit, also absorb significant management time and employee resources.

If we are unable to obtain and maintain patent protection for our GD-T cell technologies and product candidates, or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and biologics similar or identical to ours, and our ability to successfully commercialize our technology and product candidates may be impaired.

Our success depends on our ability to obtain and maintain patent protection in the United States, the European Union, Japan and other countries with respect to our product candidates. We seek to protect our proprietary position by filing patent applications related to our technology and product candidates in the major pharmaceutical markets, including the United States, major countries in Europe and Japan. If we do not adequately protect our intellectual property, competitors may be able to use our technologies and erode or negate any competitive advantage that we may have, which could harm our business and ability to achieve profitability.

To protect our proprietary positions, we file patent applications related to our novel technologies and product candidates that are important to our business. The patent application and prosecution process is expensive and time-consuming. We may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. We may also fail to identify patentable aspects of our research and development before it is too late to obtain patent protection. It is possible that defects of form in the preparation or filing of our patents or patent applications may exist, or may arise in the future, such as with respect to proper priority claims, inventorship, claim scope or patent term adjustments. If any current or future licensors or licensees are not fully cooperative or disagree with us as to the prosecution, maintenance or enforcement of any patent rights, such patent rights could be compromised and we might not be able to prevent third parties from making, using and selling competing products. If there are material defects in the form or preparation of our patents or patent applications, such patents or applications may be invalid and unenforceable. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how. Any of these outcomes could impair our ability to prevent competition from third parties.

Patent applications are generally in the form of composition of matter or method patents. A composition of matter (COM) patent protects an actual drug molecule or engineered cell or other therapeutic agent and will be infringed by a third party making any use of the protected composition. COM patents provide de-facto protection for any and all uses of the protected composition and are generally held to be the strongest and most valuable form of patent protection. Method patents protect, for example, a method of manufacturing a product or a method of using it. They can be valuable but typically are more limited in scope than COM patents, particularly method of use patents which only protect a particular application of a product. Where our patent applications are limited in their scope, such as a patent protecting the method of use, such patent rights could be compromised and we might not be able to prevent third parties from making, using and selling competing products.

Prosecution of our owned and in-licensed patent portfolio is at a very early stage. We have a one granted US patent and one granted Israeli patent to date and no granted European patents. Most of our current patent portfolio consists of applications pending at a number of national or regional patent offices (Australia, Canada, Brazil, China, Eurasia, Europe, Hong Kong, Israel, Japan, South Korea, New Zealand, Singapore, US, South Africa). Neither priority applications nor PCT applications can themselves give rise to issued patents. Rather, protection for the inventions disclosed in these applications must be further pursued by applicable deadlines via applications that are subject to examination. As applicable deadlines for the priority and PCT applications become due, we will need to decide whether to and in which countries or jurisdictions to pursue patent protection for the various inventions claimed in these applications, and we will only have the opportunity to pursue and obtain patents in those jurisdictions where we pursue protection.

It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. The patent applications that we own or in-license may fail to result in issued patents with claims that cover our current and future product candidates in the countries in which we pursue patent protection. Our patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless, and until, a patent issues from such applications, and then only to the extent the issued claims cover the technology.

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

Patent and other intellectual property rights may not be upheld, in which case we will suffer a loss of our intellectual property position and the value of our assets.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain. Changes in either the patent laws or interpretation of the patent laws of the various jurisdictions in which we pursue patents may diminish the value of our patents or narrow the scope of our patent protection. In addition, the protections offered by laws of different countries vary. No consistent policy regarding the breadth of claims allowed in biotechnology and pharmaceutical patents has emerged to date in many jurisdictions. In addition, the determination of patent rights with respect to pharmaceutical technologies, such as our cell technologies, commonly involves complex legal and factual questions, which has in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights, whether owned or in-licensed, are highly uncertain. Furthermore, the scope, strength and enforceability of our patent rights or the nature of proceedings that may be brought by or against us related to our patent rights may change as the related patent and intellectual property laws change over time. Additionally, in the United States, one of the jurisdictions in which we purse patent protection, the U.S. Supreme Court has ruled on several patent cases in recent years either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the U.S. federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain patents or to enforce any patents that we might obtain in the future.

We may be unaware of the rights of others which may ultimately be used to limit our intellectual property rights.

We may not be aware of all third-party intellectual property rights potentially relating to our current and future our product candidates. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in many jurisdictions typically are not published until 18 months or more after filing, or in some cases not at all. Therefore, we cannot be certain that we or our licensors were the first to make the inventions claimed in our patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions. Similarly, should we own or in-license any patents or patent applications in the future, we may not be certain that we or the applicable licensor were the first to file for patent protection for the inventions claimed in such patents or patent applications. As a result, the issuance, scope, validity and commercial value of our patent rights cannot be predicted with any certainty. Moreover, in the United States, we may be subject to a third-party pre-issuance submission of prior art to the U.S. Patent and Trademark Office, or USPTO, or become involved in opposition, derivation, re-examination, *inter partes* review or interference proceedings, in the United States or elsewhere, challenging our patent rights or the patent rights of others. An adverse determination in any such submission,

proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or product candidates 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, which could significantly harm our business and results of operations.

We may be subject to claims by third parties asserting that we or our employees have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property.

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies. Although we try to ensure that our employees do not use the proprietary information or know-how of third parties in their work for us, we may be subject to claims that these employees or we have inadvertently or otherwise used intellectual property, including trade secrets or other proprietary information, of any such employee's former employer. We may also in the future be subject to claims that we have caused an employee to breach the terms of his or her non-competition or non-solicitation agreement. Litigation may be necessary to defend against these potential claims.

In addition, while it is our policy to require our employees and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, such employees and contractors may breach the agreement and claim the developed intellectual property as their own.

If we fail in defending any the claims we have made, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A court could prohibit us from using technologies or features that are essential to our products if such technologies or features are found to incorporate or be derived from the trade secrets or other proprietary information of the former employers. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs and could be a distraction to management. In addition, any litigation or threat thereof may adversely affect our ability to hire employees or contract with independent service providers. Moreover, a loss of key personnel or their work product could hamper or prevent our ability to commercialize our products.

Technologies and other proprietary rights for which we seek patent protection may not be obtained, which would potentially limit the value of our intellectual property.

Our pending and future patent applications, whether owned or in-licensed, may not result in patents being issued that protect our technology or product candidates, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Even if our patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection against competing products or processes sufficient to achieve our business objectives, prevent competitors from competing with us or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our owned or licensed patents, should they issue, by developing similar or alternative technologies or products in a non-infringing manner. Our competitors may seek approval to market their own products similar to or otherwise competitive with our products. In these circumstances, we may need to defend and/or assert our patents, including by filing lawsuits alleging patent infringement. In any of these types of proceedings, a court or other agency with jurisdiction may find our patents invalid and/or unenforceable.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our owned and licensed patents may be challenged in the courts or patent offices in the jurisdictions in which we have filed for patent protection. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. In addition, given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized.

We may be subject to claims challenging the inventorship or ownership of our owned or in-licensed patent rights and other intellectual property.

We generally enter into confidentiality and intellectual property assignment agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors. However, these agreements may not be honored and may not effectively assign intellectual property rights to us. For example, disputes may arise from conflicting obligations of consultants or others who are involved in developing our technology and product candidates. Litigation may be necessary to defend against these and other claims challenging inventorship or ownership. The owners of intellectual property in-licensed to us could also face such claims. If we or our licensors fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we or our licensors are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could significantly harm our business.

We believe that we have proprietary and modular T cell programming technology that does not infringe the intellectual property and other proprietary rights of third parties. Numerous third-party U.S. and non-U.S. issued patents exist in the area of biotechnology, including in the area of programmed T cell therapies. Some are patents held by our competitors. If any third-party patents cover our product candidates or technologies, we may not be free to manufacture or commercialize our product candidates as planned.

There is a substantial amount of intellectual property litigation in the biotechnology and pharmaceutical industries, and we may become party to, or threatened with, litigation or other adversarial proceedings regarding intellectual property rights with respect to our technology or product candidates, including interference proceedings before the relevant patent office. Intellectual property disputes arise in a number of areas including with respect to patents, use of other proprietary rights and the contractual terms of license arrangements. Third parties may assert claims against us based on existing or future intellectual property rights and claims may also come from competitors against whom our own patent portfolio may have no deterrent effect. The outcome of intellectual property litigation is subject to uncertainties that cannot be adequately quantified in advance. Other parties may allege that our product candidates or the use of our technologies infringes patent claims or other intellectual property rights held by them or that we are employing their proprietary technology without authorization. As we continue to develop and, if approved, commercialize our current and future product candidates, competitors may claim that our technology infringes their intellectual property rights as part of business strategies designed to impede our successful commercialization. There are and may in the future be additional third-party patents or patent applications with claims to, for example, materials, compositions, formulations, methods of manufacture or methods for treatment related to the use or manufacture of any one or more of our product candidates.

If we are found to infringe a third party's intellectual property rights, we could be forced, including by court order, to cease developing, manufacturing or commercializing the infringing product candidate or product. Alternatively, we may be required or may choose to obtain a license from such third party in order to use the infringing technology and continue developing, manufacturing or marketing the infringing product candidate. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative effect on our business. Even if successful, the defense of any claim of infringement or misappropriation is time-consuming, expensive and diverts the attention of our management from our ongoing business operations.

We may need to license intellectual property from third parties, and such licenses may not be available or may not be available on commercially reasonable terms.

A third party may hold intellectual property rights, including patent rights, which are important or necessary to the development or manufacture of our product candidates. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our product candidates, in which case we would be required to obtain a license from these third parties. Such a license may not be available on commercially reasonable terms, or at all, and we could be forced to accept unfavorable contractual terms. If we are unable to obtain such licenses on commercially reasonable terms, our business could be harmed.

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

Competitors may infringe our patents, if issued, trademarks, copyrights or other intellectual property. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming and divert the time and attention of our management and scientific personnel. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their patents, trademarks, copyrights or other intellectual property. In addition, in a patent infringement proceeding, there is a risk that a court will decide that a patent of ours is invalid or unenforceable, in whole or in part, and that we do not have the right to stop the other party from using the invention at issue. There is also a risk that, even if the validity of such patents is upheld, the court will construe the patent's claims narrowly or decide that we do not have the right to stop the other party from using the invention at issue on the grounds that our patents do not cover the invention. An adverse outcome in a litigation or proceeding involving our patents could limit our ability to assert our patents against those parties or other competitors, and may curtail or preclude our ability to exclude third parties from making and selling similar or competitive products. Similarly, if we assert trademark infringement claims, a court may determine that the marks we have asserted are invalid or unenforceable, or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In this case, we could ultimately be forced to cease use of such trademarks.

In any infringement litigation, any award of monetary damages we receive may not be commercially valuable. 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 litigation. Moreover, there can be no assurance that we will have sufficient financial or other resources to file and pursue such infringement claims, which typically last for years before they are concluded. 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. Even if we ultimately prevail in such claims, the monetary cost of such litigation and the diversion of the attention of our management and scientific personnel could outweigh any benefit we receive as a result of the proceedings. Accordingly, despite our efforts, we may not be able to prevent third parties from infringing, misappropriating or successfully challenging our intellectual property rights. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a negative impact on our ability to compete in the marketplace.

Any trademarks we may obtain may be infringed or successfully challenged, resulting in harm to our business.

We expect to rely on trademarks as one means to distinguish any of our product candidates that are approved for marketing from the products of our competitors. While we have a corporate trademark, we have not yet selected trademarks for our product candidates and have not yet begun the process of applying to register trademarks for our product candidates. Once we select trademarks and apply to register them, our trademark applications may not be approved. Third parties may oppose our trademark applications, or otherwise challenge our use of the trademarks. In the event that our trademarks are successfully challenged, we could be forced to rebrand our products, which could result in loss of brand recognition and could require us to devote resources to advertising and marketing new brands. Our competitors may infringe our trademarks and we may not have adequate resources to enforce our trademarks.

In addition, any proprietary name we propose to use with our clinical-stage product candidates or any other product candidate in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. The FDA typically conducts a review of proposed product names, including an evaluation of the potential for confusion with other product names. If the FDA objects to any of our proposed proprietary product names, we may be required to expend significant additional resources in an effort to identify a suitable proprietary product name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA.

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

In addition to seeking patent and trademark protection for our product candidates, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect our trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets. Monitoring unauthorized uses and disclosures of our intellectual property is difficult, and we do not know whether the steps we have taken to protect our intellectual property will be effective. In addition, we may not be able to obtain adequate remedies for any such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts in the jurisdiction in which we operate or intend to operate are less willing or unwilling to protect trade secrets.

Moreover, our competitors may independently develop knowledge, methods and know-how equivalent to our trade secrets. Competitors could purchase our products and replicate some or all of the competitive advantages we derive from our development efforts for technologies on which we do not have patent protection. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed.

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

Periodic maintenance and annuity fees on any issued patent are due to be paid to the patent offices and patent agencies over the lifetime of the patent to maintain the patents that have been issued. Additionally, these offices and agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If we or our licensors fail to maintain the patents and patent applications covering our products or product candidates, our competitors might be able to enter the market, which would harm our business. In addition, to the extent that we have responsibility for taking any action related to the prosecution or maintenance of patents or patent application in-licensed from a third party, any failure on our part to maintain the in-licensed rights could jeopardize our rights under the relevant license and may expose us to liability.

If we fail to comply with our obligations in the agreements under which we license our development or commercialization rights to products or drug technologies from third-parties, we could lose license rights that are important to our business.

We hold a license from UCL Business plc ("UCLB") for its technology related to co-stimulatory CAR-T in GD-T cells. This is in addition to the intellectual property that we own. Our license with UCLB is for a single CAR-T binder, where we pay an annual license fee totaling less than $100k, certain performance-based milestone payments and a single-digit royalty on sales arising from use of that binder together with certain cumulative sales-based milestone payments. Furthermore, the Company has a duty not to breach the terms of the license agreement. If we fail to meet these obligations, the licensor will have the right to terminate the applicable license or modify certain terms of the license agreement.

Risks Related to the Offering and Ownership of Our Ordinary Shares

Control by a limited number of shareholders may limit your ability to influence the outcome of director elections and other transactions requiring shareholder approval

Upon completion of this offering, the directors, management persons and 5% and greater shareholders as a group will own _____% of our issued and outstanding ordinary shares, including options and other convertible securities that may be converted within sixty days of the date of this prospectus. Mr. Michael Leek and Angela Scott, who are married and are part of our management team, and upon completion of this offering, they will own approximately ___% of our outstanding shares on a beneficial basis. Such persons together, along with several other long term significant shareholders, will have significant influence over corporate actions requiring shareholder approval, including the following actions:

- to elect our directors;
- to amend or prevent amendment of our articles of association;
- to effect or prevent a merger, sale of assets or other corporate transaction; and
- to influence the outcome of any other matter submitted to our shareholders for vote.

These persons' share ownership may discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of our company, which in turn could reduce our stock price or prevent our shareholders from realizing a premium over our stock price.

Prior to the completion of our initial public offering, there was no public trading market for our ordinary shares, and our share price may decline after this offering.

The offering under this prospectus is an initial public offering of our ordinary shares. We plan to apply for listing of our ordinary shares on the Nasdaq Global Market under the symbol "____." No assurance can be given that our application will be approved. If the application is not approved, we will not complete this offering and our ordinary shares will not have any public market. There can be no assurance that we will be able to successfully develop a liquid market for our ordinary shares after this offering. The stock market in general, and early stage public companies in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of such companies. If we are unable to develop a market for our ordinary shares after this offering, you may not be able to sell your shares at prices you consider to be fair or at times that are convenient for you, or at all.

The offering price of our ordinary shares will be arrived at by negotiation.

We and the underwriter will negotiate to determine the initial public offering price. The initial public offering price may be higher than the trading price of our ordinary shares following this offering. As a result, you could incur losses.

We will have significant flexibility in using the net proceeds of this offering, and may use the proceeds in ways that you may not agree, and if we do not use those proceeds effectively your investment could be harmed.

We intend to use the proceeds of this offering to primarily to fund the cost of our proposed trials (TCB008-001 and TCB008-002) clinical and pre-clinical research and development with respect to applications of GD-T cell therapy, and general corporate purposes. We will have significant flexibility over the specific use of the net proceeds that we receive in this offering and may find it necessary or advisable to use portions of the proceeds from this offering for other purposes. You may not have an opportunity to evaluate the economic, financial or other information on which we base our decisions on how to use our proceeds and will need to rely upon our judgment with respect to the use of proceeds. As a result, you and other shareholders may not agree with our decisions. If we do not use the net proceeds that we receive in this offering effectively, our business, results of operations and financial condition could be harmed.

We will be a foreign private issuer and, as a result, we will not be subject to U.S. proxy rules and will be subject to Exchange Act reporting obligations that, to some extent, are more lenient and less frequent than those of a U.S. domestic public company.

Upon consummation of this offering, we will report under the Exchange Act as a non-U.S. company with foreign private issuer status. Because we will 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. These include: (1) the sections of the Exchange Act regulating the solicitation of proxies, consents or authorizations with respect to a security registered under the Exchange Act; (2) the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and liability for insiders who profit from trades made in a short period of time; and (3) the rules under the Exchange Act requiring the filing with the SEC of quarterly reports on Form 10-Q containing unaudited financial and other specified information, or current reports on Form 8-K upon the occurrence of specified significant events. In addition, foreign private issuers are not required to file their annual report on Form 20-F until four months after the end of each fiscal year, while U.S. domestic issuers are required to file their annual report on Form 10-K within 90 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.

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

We will be a foreign private issuer as of the effective date of this registration statement. As a result, in accordance with Nasdaq Listing Rule 5615(a)(3), we will comply with home country governance requirements and certain exemptions thereunder rather than complying with certain of the corporate governance requirements of Nasdaq.

Scottish law does not require that a majority of our board of directors consist of independent directors or that our board committees consist of entirely independent directors. Our board of directors and board committees, therefore, may include fewer independent directors than would be required if we were subject to Nasdaq Listing Rule 5605(b)(1). In addition, we will not be subject to Nasdaq Listing Rule 5605(b)(2), which requires that independent directors must regularly have scheduled meetings at which only independent directors are present. Also, Scottish law does not require the board of directors to have a nominations committee, and we do not plan on having such a committee.

We also will seek exemption from the Nasdaq listing rules so as to follow the quorum rules for shareholder meetings under Scottish law. We also will seek exemption from the Nasdaq listing rules so as to not be required to obtain shareholder approval for certain issuance of securities and shareholder approval of share option plans.

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.

We will be a foreign private issuer immediately after this offering. In order to maintain our current status as a foreign private issuer, a majority of our ordinary shares must continue to be either directly or indirectly owned of record by non-residents of the United States. If a majority of our ordinary shares are instead held by U.S. residents then in order to continue to maintain our foreign private issuer status, (i) a majority of our executive officers or directors must not be U.S. citizens or residents, (ii) more than 50% of our assets must not be located in the United States, and (iii) our business must be administered principally outside the United States. At the completion of this offering, the [** majority of our directors will be resident in the United Kingdom**] and not United States citizens or green card holders, less than 50% of our assets will be located in the United States, and our business will be administered principally in the United Kingdom.

Losing our status as a foreign private issuer would require us to comply with all of the periodic disclosure and current reporting requirements of the Exchange Act applicable to U.S. domestic issuers. We may also be required to make changes in our corporate governance practices in accordance with various SEC and Nasdaq rules. The regulatory and compliance costs to us under U.S. securities laws, if we are required to comply with the reporting requirements applicable to a U.S. domestic issuer, may be significantly higher than the cost we would incur as a foreign private issuer. As a result, we would expect that a loss of foreign private issuer status will increase our legal and financial compliance costs and will make some activities highly time consuming and costly. We also expect that if we will be required to comply with the rules and regulations applicable to U.S. domestic issuers, it will make it more difficult and expensive for us to obtain director and officer liability insurance; we may therefore be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These rules and regulations could also make it more difficult for us to attract and retain qualified members of our board of directors.

As a foreign private issuer we do not intend to list our ordinary shares on any market in the United Kingdom. This may limit the information available to holders of our ordinary shares whose shares are listed in the United Kingdom.

Our shares are not listed and we do not currently intend to list our shares on any market in the United Kingdom. As a result, we are not subject to the reporting and other requirements of companies listed in the United Kingdom. Accordingly, there will be less publicly available information concerning our company than there would be if we were a public company listed in the United Kingdom.

There has been no prior active trading market for our ordinary shares and an active and liquid market for our ordinary shares may fail to develop, which could harm the market price of our ordinary shares and you may not be able to resell your ordinary shares at or above the initial public offering price.

There is a risk that an active trading market for our ordinary shares may not develop or be sustained after this offering is completed. The initial offering price was determined by negotiations among the lead underwriters and us. Among the factors considered in determining the initial offering price will be the following:

- our financial information;
- the history of, and the future prospects for, our company and the industry in which we compete;
- an assessment of our management, its past and present operations, and the prospects for, and timing of, our future revenue;
- the present state of our development; and
- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

Following the offering, our ordinary shares may not trade at a price equal to or greater than the initial offering price. The initial offering price may not be indicative of the market price of our ordinary shares after the offering. In the absence of an active trading market for our ordinary shares, investors may not be able to sell their ordinary shares at or above the initial offering price or at the time that they would like to sell.

The market price of our ordinary shares may be volatile and you could lose all or part of your investment.

The price of the securities of publicly-traded emerging pharmaceutical and drug discovery and development companies has been highly volatile and is likely to remain highly volatile in the future. As a result of this volatility, you may not be able to sell your ordinary shares at or above the initial public offering price. The market price of our ordinary shares may fluctuate significantly due to a variety of factors, including the following:

- positive or negative results of testing and clinical trials by us, strategic partners or competitors;
- delays in entering into strategic relationships with respect to development or commercialization of our investigational GD-T cell therapy or any future therapeutic candidates;
- entry into strategic relationships on terms that are not deemed to be favorable to us;
- technological innovations or commercial therapeutic introductions by competitors;
- changes in government regulations and healthcare payment systems;
- developments concerning proprietary rights, including patent and litigation matters;

  public concern relating to the commercial value or safety of any of our investigational GD-T cell therapy or any future therapeutic candidates;

- negative publicity or public perception of the use of GD-T cells as a treatment therapy;
- financing or other corporate transactions;
- publication of research reports or comments by securities or industry analysts;
- the trading volume of our Ordinary shares on Nasdaq;
- sales of our ordinary shares by us, members of our senior management and directors or our shareholders or the anticipation that such sales may occur in the future;
- general market conditions in the pharmaceutical industry or in the economy as a whole;

- general economic, political, and market conditions and overall market volatility in the United States or the UK as a result of the COVID-19 pandemic or other pandemics or similar events; and

- other events and factors, many of which are beyond our control.

These and other market and industry factors may cause the market price and demand for our securities to fluctuate substantially, regardless of our actual operating performance, which may limit or prevent investors from readily selling their ordinary shares and may otherwise negatively affect the liquidity of our ordinary shares. In addition, the stock market in general, and pharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies.

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

Historically, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because pharmaceutical and biopharmaceutical companies have experienced significant share 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.

Assuming a market for our ordinary shares develops, shares eligible for future sale may adversely affect the market for our ordinary shares.

Commencing on the 180th day following the close of this offering and expiration of the lock up terms to which they have agreed, many of our shareholders will be eligible to sell all or some of their ordinary shares by means of ordinary brokerage transactions in the open market pursuant to Rule 144, promulgated under the Securities Act. In general, pursuant to Rule 144, non-affiliate shareholders may sell freely after six months, subject only to the current public information requirement. Of the _____ ordinary shares expected to be outstanding following completion of the offering, _____ shares will be freely tradable without restriction pursuant to Rule 144 following the expiration of the 180-day lock-up agreed upon by those shareholders.

Any substantial sale of our ordinary shares pursuant to Rule 144 or pursuant to any resale prospectus (including sales by investors of securities acquired in connection with this offering) may have a material adverse effect on the market price of our ordinary shares. Further details can be found in the 'Shares Eligible for Future Sale' section.

You will experience immediate dilution in the book value per share of the ordinary shares you purchase.

Because the price per share of our ordinary shares being offered is substantially higher than the book value per ordinary share, you will experience substantial dilution in the net tangible book value of the shares you purchase in this offering. Based on the offering price of $____ per share, if you purchase shares in this offering, you will experience immediate and substantial dilution of $_____ per share in the net tangible book value per share at _____, 2021.

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

As a Scottish public company listed in the U.S., we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of Nasdaq, and other applicable securities rules and regulations impose various requirements on foreign reporting public companies, including the establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our board of directors, management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance, which in turn could make it more difficult for us to attract and retain qualified members of our board of directors.

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

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

Prior to the completion of this offering, we have been a private company with limited operating scale and with the appropriate accounting personnel to adequately execute our accounting processes and other supervisory resources with which to address our internal control over financial reporting. We are progressing with the activities necessary to implement, in due course, appropriate accounting policies, processes and controls to comply with our expected expansion in scale of operations and with Section 404. These activities include identifying and recruiting additional individuals with requisite expertise to assist in implementation activities designed to strengthen our internal control over financial reporting to avoid control deficiencies and initiating the design and implementation of improvements to our financial control environment to address our future needs. However, we cannot assure you that the measures we have taken to date, and actions we plan to take in the future, will be sufficient to prevent or avoid potential future material weaknesses in our controls.

Our independent registered public accounting firm will not be required to formally attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 until we are no longer an "emerging growth company" which will be for up to five years after this offering.

If we are unsuccessful in building an appropriate accounting infrastructure, we may not be able to prepare and disclose, in a timely manner, our financial statements and other required disclosures, or comply with existing or new reporting requirements. Any failure to report our financial results on an accurate and timely basis could result in sanctions, lawsuits, delisting of our shares from Nasdaq or other adverse consequences that would materially harm our business. If we cannot provide reliable financial reports or prevent fraud, our business and results of operations could be harmed and investors could lose confidence in our reported financial information. Any of the foregoing occurrences, should they come to pass, could negatively impact the public perception of our company, which could have a negative impact on the price of our ordinary shares.

Your rights as a shareholder will be governed by Scottish law and will differ from the rights of shareholders under U.S. law.

Upon completion of the corporate reorganization, we will be public limited company under the laws of Scotland and United Kingdom. Therefore, the rights of holders of our ordinary shares are governed by the corporate law of Scotland and the United Kingdom and by our memorandum of association and articles. The statutory framework

that governs the Company is the Companies Act 2006 which is a UK-wide act and references to the "UK Law" are to UK-wide legislation. These rights differ from the typical rights of shareholders in U.S. corporations. In certain cases, facts that, under U.S. law, would entitle a shareholder in a U.S. corporation to claim damages may not give rise to a cause of action or claim for damages under Scottish law. For example, the rights of shareholders to bring proceedings against the Company or against our directors or officers in relation to public statements are more limited under Scottish law and UK Law than under the civil liability provisions of the U.S. securities laws. Further details are provided in the section "Description of Share Capital and Articles of Association" showing the differences between Delaware corporate law and the Companies Act 2006.

You may face difficulties in protecting your interests, and your ability to protect your rights through the U.S. federal courts may be limited, because we are incorporated outside the United States, conduct most of our operations outside the United States and most of our directors and senior management reside outside the United States.

We are incorporated and have our registered office in, and are currently existing under the laws of, Scotland. In addition, most of our tangible assets are located, and most of our senior management and certain of our directors reside, outside of the United States. As a result, it may not be possible to serve process within the United States on certain directors or us or to enforce judgments obtained in U.S. courts against such directors or us based on civil liability provisions of the securities laws of the United States.

The United States and the UK 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 UK. In addition, uncertainty exists as to whether courts of Scotland would entertain original actions brought in Scotland against us or our directors or senior management predicated upon the securities laws of the U.S. or any state in the U.S. Any final and conclusive monetary judgment for a definite sum obtained against us in U.S. courts would be treated by the courts of Scotland 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 subject to determination by the court making such decision. If the courts of Scotland give a judgment for the sum payable under a U.S. judgment, the Scottish judgment will be enforceable by methods generally available for this purpose. These methods generally permit the courts of Scotland 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.

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

Scottish 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, such authorization stating the aggregate nominal amount of shares that it covers and being valid for a maximum period of five years, each as specified in the articles of association or relevant ordinary resolution passed by shareholders at a general meeting. Once allotted, the board of directors are free to issue the shares without further shareholder approval. The authority from our shareholders to allot additional shares for a period of five years from _____, 2021 was included in the ordinary resolution passed by our shareholders on _____, 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).

Scottish law also generally provides shareholders with pre-emptive rights when new shares are issued for cash. However, it is possible for the articles of association, 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 pre-emptive rights. Such a disapplication of pre-emptive rights may be for a maximum period of up to five years from the date of adoption of the articles of association, if the disapplication is contained in the articles of association, 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 pre-emptive rights for a period of five years was included in the special resolution passed by our shareholders on, _____, 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).

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

Our business and results of operations may be negatively impacted by the UK's withdrawal from the EU.

The UK withdrew from the EU effective on January 31, 2020, and the transition period ended on December 31, 2020, which we refer to as Brexit. The future regulations that will apply in the UK following the transition period (including financial laws and regulations, tax and free trade agreements, intellectual property rights, data protection laws, supply chain logistics, environmental, health and safety laws and regulations medicine licensing and regulations, immigration laws and employment laws), have yet to be fully addressed and continue to be in transaction, subject to change. The overall lack of clarity on future UK laws and regulations and their interaction with the EU laws and regulations may negatively impact foreign direct investment in the UK, increase costs, depress economic activity and restrict access to capital. As we are headquartered in the UK and have operations and clinical trials in the United Kingdom and EU, it is possible that Brexit may impact some or all of our current operations and otherwise how we conduct business. For example, Brexit may impact our ability to freely move employees from our headquarters in the UK to other locations in Europe, and it may impact the ability of European therapists to move freely to the UK in order to complete part of their training or work on our clinical trials there.

The long-term effects of Brexit will depend in part on the agreements the UK made during the Brexit transition period to retain access to markets in the EU. The Brexit withdrawal from the EU is unprecedented, and it is unclear how the UK's access to the European single market for goods, capital, services and labor within the EU, or single market, and the wider commercial, legal and regulatory environment, will impact our current and future operations (including business activities conducted by third parties and contract manufacturers on our behalf) and clinical activities in the UK In addition to the foregoing, our UK operations support our current and future operations and clinical activities in the EU and EEA and these operations and clinical activities could be disrupted by Brexit.

We may also face new regulatory costs and challenges that could have an adverse effect on our operations as a result of Brexit. The UK could lose the benefits of global trade agreements negotiated by the EU on behalf of its member states, which may result in increased trade barriers that could make our doing business in the EU and the EEA more difficult. Since the regulatory framework in the UK covering quality, safety and efficacy of therapeutic substances, clinical trials, marketing authorization, commercial sales and distribution of therapeutic substances is derived from EU directives and regulations, Brexit could materially impact the future regulatory regime with respect to the approval of our GD-T cell therapy or any future therapeutic candidates in the UK. For instance, in November 2017, EU member states voted to move the EMA, the EU's regulatory body, from London to Amsterdam. Operations in Amsterdam commenced in March 2019, and the move itself may cause significant disruption to the regulatory approval process in Europe. It remains to be seen how, if at all, Brexit will impact regulatory requirements for therapeutic candidates and therapies in the UK. Any delay in obtaining, or an inability to obtain, any regulatory approvals, as a result of Brexit or otherwise, would delay or prevent us from commercializing our investigational GD-T cell therapy or future therapeutic candidates in the UK and/or the EU and restrict our ability to generate revenue and achieve and sustain profitability. We may be forced to restrict or delay efforts to seek regulatory approval in the UK and/or EU for GD-T cell therapy or any future therapeutic candidates, which could significantly and materially harm our business.

We expect that Brexit, in the near and middle term will lead to certain legal uncertainties and potentially divergent national laws and regulations as the UK determines which EU laws to replicate or replace, including those related to data privacy and the regulation of medicinal products, as described above. Any of these effects of Brexit, and others we cannot anticipate, could negatively impact our business and results of operations.

Our business may be subject to risks related to possible Scottish independence from the UK

The possibility of Scottish independence from the UK creates a range of uncertainties for business in general, which would require careful assessment by the board of directors and management as political events develop. There could be changes in currency, taxation, general legislation, regulations and trading arrangements and agreements, together with economic prospects more generally. It is not possible to predict the effect of Scottish independence if it were to occur and the changes introduced could have only limited effect on the business, be beneficial to the business or could have a material adverse effect on the business' revenue, financial condition, profitability, prospects and results of operations.

A transfer of ordinary shares, other than one effected by means of the transfer of book-entry interests in the Depositary Trust Company, may be subject to United Kingdom stamp duty.

The transfer of our ordinary shares effected by means of the transfer of book entry interests in the Depositary Trust Company ("DTC") in the United States will generally not be subject to United Kingdom stamp duty. It is anticipated that the majority of our ordinary shares will be traded through DTC by brokers who hold such shares on behalf of customers. However, if you hold your ordinary shares directly rather than beneficially through DTC, any transfer of your ordinary shares (including into DTC with a view to trading) would be likely to be subject to United Kingdom stamp duty currently at the rate of 1.5% of the higher of the price paid or the market value of the shares acquired.

If our ordinary shares are not eligible for deposit and clearing within the facilities of DTC, then transactions in the ordinary shares may be disrupted.

The facilities of DTC are a widely-used mechanism in the United States securities market that allow for rapid electronic transfers of securities between the participants in the DTC system, which include many large banks and brokerage firms. Our ordinary shares are expected to be eligible for deposit and clearing within the DTC system, however, DTC has discretion to cease to act as a depository and clearing agency for the ordinary shares. If DTC determines at any time that the ordinary shares are not eligible for continued deposit and clearance within its facilities, then we believe the ordinary shares would not be eligible for continued listing on a U.S. securities exchange and trading in the ordinary shares would be disrupted. While we would pursue alternative arrangements to preserve our listing and maintain trading, any such disruption could have a material adverse effect on the trading price of the ordinary shares.

General Risk Factors

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

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 and our functional currency is the pound sterling and the majority of our operating expenses are paid in pound sterling. We regularly acquire services, consumables and materials in U.S. dollars, pound sterling 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 ordinary shares 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.

Collaborations, whether through joint ventures, licensing, development arrangements, and other forms of agreements, will be important to our overall business development.

In common with many development stage biotechnology companies an element of our business plan is consider entering into collaborative arrangements with larger pharmaceutical and biotechnology companies. We expect that future collaborations will provide us with important expertise, aid in product development, facilitate market entry and may provide some level of funding or future revenue. Notwithstanding our belief that collaborations will be beneficial to us, any collaboration arrangement may by their nature pose a number of risks, including the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to a project;
- collaborators may not perform their obligations as expected;
- collaborators may dispute the amounts of payments owed;
- collaborators may not pursue development and commercialization of any product candidates that achieve regulatory approval or may elect not to continue or renew development or commercialization programs or license arrangements

In the past, we have entered into collaborative arrangements with two partners, bluebird bio, Inc. (USA) and Nipro Corporation (Japan), which involved funded or partly funded preclinical collaboration. Neither collaboration involve us in any current clinical or development activity or are generating any current cash receipts for us. It is uncertain if these collaborations will generate any future cash receipts or obligations for TCB.

As a company based outside of the United States, our business is subject to economic, political, regulatory and other risks associated with international operations.

Our business is based in the United Kingdom and is subject to risks associated with conducting business outside of the United States. Many of our suppliers and clinical trial relationships are located outside the United States, primarily in the United Kingdom and in the EU. Accordingly, our future results could be harmed by a variety of factors, including:

- economic weakness, including inflation, or political change;
- differing and changing regulatory requirements for product approvals;
- differing jurisdictions could present 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 non-U.S. currency exchange rates of the pound sterling, U.S. dollar, euro and currency controls;

- changes in a specific country's or region's political or economic environment, including the implications of the recent action of the United Kingdom withdrawing from the European Union and efforts related to Scottish independence;
- customs, tariffs and trade barriers, trade protection measures, import or export licensing requirements or other restrictive actions by governments;
- differing medical product reimbursement regimes and price controls;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad, including, for example, the variable tax treatment in different jurisdictions of options granted under our share option schemes or equity incentive plans;
- workforce uncertainty in countries where labor unrest is more common than in the United Kingdom and the United States;
- difficulties associated with staffing and managing international operations, including differing labor relations; and
- business interruptions resulting from geo-political actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods and fires.

If we are not able to maintain and enhance our reputation and brand recognition, our business, financial condition and results of operations will be harmed.

We believe that maintaining and enhancing our reputation and brand recognition is critical to our relationships with existing and future third-party therapy locations, therapists, patients and collaborators, and to our ability to attract clinics to become our third-party therapy locations offering our therapies. The promotion of our brand may require us to make substantial investments, and we anticipate that, as our market becomes increasingly competitive, these marketing initiatives may become increasingly difficult and expensive. Brand promotion and marketing activities may not be successful or yield increased revenue, and to the extent that these activities yield increased revenue, the increased revenue may not offset the expenses we incur and our business, financial condition and results of operations could be harmed. In addition, any factor that diminishes our reputation or that of our management, including failing to meet the expectations of our network of third-party therapy locations, therapists and patients, could harm our reputation and brand and make it substantially more difficult for us to attract new third-party therapy locations, therapists and patients. If we do not successfully maintain and enhance our reputation and brand recognition, our business may not grow and we could lose our relationships with third-party therapy sites, therapists and patients, which would harm our business, financial condition and results of operations.

We are subject to anti-corruption laws, export control laws, customs laws, sanctions laws and other laws governing our operations. If we fail to comply with these laws, we could be subject to civil or criminal penalties, other remedial measures and legal expenses, be precluded from manufacturing our products and developing and selling our investigational therapies or any future therapeutic candidates or be required to develop and implement costly compliance programs, which could adversely affect our business, results of operations and financial condition.

Our operations are subject to anti-corruption laws, including the UK Bribery Act 2010, or Bribery Act, the U.S. Foreign Corrupt Practices Act of 1977, as amended, or FCPA, and other anti-corruption laws that apply in countries where we do business and may do business in the future. The Bribery Act, FCPA and these other laws generally prohibit us, our officers, and our employees and intermediaries from bribing, being bribed or making other prohibited payments to government officials or other persons to obtain or retain business or gain some other business advantage.

The Bribery Act, the FCPA and these other laws generally prohibit us and our employees and intermediaries from authorizing, promising, offering, or providing, directly or indirectly, a financial or other advantage to government officials or other persons to induce them to improperly perform a relevant function or activity (or reward them for such behavior).

Under the Bribery Act, we may also be liable for failing to prevent a person associated with us from committing a bribery offense. We, along with those acting on our behalf and our commercial partners, operate in a number of jurisdictions that pose a high risk of potential Bribery Act or FCPA violations, and we participate in collaborations and relationships with third parties whose corrupt or illegal activities could potentially subject us to liability under the Bribery Act, FCPA or local anti-corruption laws, even if we do not explicitly authorize or have actual knowledge of such activities. In addition, we cannot predict the nature, scope or effect of future regulatory requirements to which our international operations might be subject or the manner in which existing laws might be administered or interpreted.

Compliance with the FCPA, in particular, is expensive and difficult, particularly in countries in which corruption is a recognized problem. In addition, the FCPA presents particular challenges in the pharmaceutical industry, because, in many countries, hospitals are operated by the government, and doctors and other hospital employees are considered foreign officials. Certain payments to hospitals in connection with clinical trials and other work have been deemed to be improper payments to government officials and have led to FCPA enforcement actions. need to dedicate additional resources to comply with numerous laws and regulations in each jurisdiction in which we plan to operate.

We may in the future operate in jurisdictions that pose a high risk of potential Bribery Act or FCPA violations, and we may participate in collaborations and relationships with third parties whose actions could potentially subject us to liability under the Bribery Act, FCPA or local anti-corruption laws. In addition, we cannot predict the nature, scope or effect of future regulatory requirements to which our international operations might be subject or the manner in which existing laws might be administered or interpreted. If we expand our operations, we will need to dedicate additional resources to comply with numerous laws and regulations in each jurisdiction in which we plan to operate.

We are also subject to other laws and regulations governing our international operations, including regulations administered by the governments of the UK and the U.S., and authorities in the EU, including applicable export control regulations, economic sanctions on countries and persons, customs requirements and currency exchange regulations, collectively referred to as the Trade Control laws. In addition, various laws, regulations and executive orders also restrict the use and dissemination outside of the United States, or the sharing with certain non-U.S. nationals, of information classified for national security purposes, as well as certain products and technical data relating to those products. If we expand our presence outside of the U.S., it will require us to dedicate additional resources to comply with these laws, and these laws may preclude us from manufacturing our products and developing and selling our investigational therapies or any future therapeutic candidates outside of the United States, which could limit our growth potential and increase our development costs.

There is no assurance that we will be completely effective in ensuring our compliance with all applicable anti-corruption laws, including the Bribery Act, the FCPA or other legal requirements, including Trade Control laws. If we are not in compliance with the Bribery Act, the FCPA and other anti-corruption laws or Trade Control laws, we may be subject to criminal and civil penalties, disgorgement and other sanctions and remedial measures, and legal expenses, which could have an adverse impact on our business, financial condition, results of operations and liquidity. Any investigation of any potential violations of the Bribery Act, the FCPA, other anti-corruption laws or Trade Control laws by UK, U.S. or other authorities could also have an adverse impact on our reputation, our business, results of operations and financial condition.

Because we are subject to environmental, health and safety laws and regulations, we may become exposed to liability and substantial expenses in connection with environmental compliance or remediation activities which may adversely affect our business and financial condition.

Our operations, including our research, development, testing and manufacturing activities, are subject to numerous environmental, health and safety laws and regulations. These laws and regulations govern, among other things, the controlled use, manufacture, handling, release and disposal of and the maintenance of a registry for,

hazardous materials, such as chemical solvents, human cells, carcinogenic compounds, mutagenic compounds and compounds that have a toxic effect on reproduction, laboratory procedures and exposure to blood-borne pathogens.

We may incur significant costs to comply with these current or future environmental and health and safety laws and regulations. Furthermore, if we fail to comply with such laws and regulations, we could be subject to fines or other sanctions.

As with other companies engaged in activities similar to ours, we face a risk of environmental liability inherent in our current and historical activities, including liability relating to releases of or exposure to hazardous materials and, as a result, may incur material liability as a result of such release or exposure. Environmental, health and safety laws and regulations are becoming more stringent. We may incur substantial expenses in connection with any current or future environmental compliance or remediation activities, in which case, our production and development efforts may be interrupted or delayed and our financial condition and results of operations may be materially adversely affected. In the event of an accident involving such hazardous materials, an injured party may seek to hold us liable for damages that result.

The requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain qualified board members.

Once we are a public company, we will incur additional accounting, legal and other expenses that we did not incur as a private company. We will incur costs associated with our public company reporting requirements. We also anticipate that we will incur costs associated with corporate governance requirements, including requirements under the Sarbanes-Oxley Act of 2002, as well as rules and regulations implemented by the SEC and The Nasdaq Stock Market. We expect these rules and regulations to increase our legal and financial compliance costs and to make some activities more time-consuming and costly. Furthermore, these rules and regulations could make it more difficult or costlier for us to obtain certain types of insurance, including director and officer liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers. We are currently evaluating and monitoring developments with respect to these rules and regulations, and we cannot predict or estimate the amount of additional costs we may incur or the timing of such costs.

New laws and regulations as well as changes to existing laws and regulations affecting public companies, including the provisions of the Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Protection Act, and rules adopted by the SEC and The Nasdaq Stock Market, will likely result in increased costs to us as we respond to their requirements.

Our internal computer systems, or those of our future collaborators or other contractors or consultants, may fail or suffer security breaches, which could result in a significant disruption of our product development programs and our ability to operate our business effectively.

Our internal computer systems and those of our current and any future collaborators and other contractors or consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we have not experienced any significant system failure, accident or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a disruption of our development programs and our business operations, whether due to a loss of our trade secrets or other proprietary information or other similar disruptions. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, our competitive position could be harmed and the further development and commercialization of our product candidates could be delayed.

We are an "emerging growth company" under the federal securities laws and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our ordinary shares less attractive to investors.

We are an "emerging growth company," as defined in Section 2(a) of the Securities Act, and we may take advantage of certain exemptions from various reporting requirements that are applicable to public companies that are not "emerging growth companies" including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our ordinary shares less attractive because we may rely on these exemptions. Investors may be unable to compare our business with other companies in our industry if they believe that our reporting is not as transparent as other companies in our industry. If some investors, including persons considering an investment in the company, find our ordinary shares less attractive as a result, there may be a less active trading market for our ordinary shares and our stock price may be more volatile.

We will remain an "emerging growth company" for up to five years, although we will lose that status sooner if our revenues exceed $1 billion (or equivalent), if we issue more than $1 billion (or equivalent) in non-convertible debt in a three-year period, or if the market value of our ordinary shares that is held by non-affiliates exceeds $700 million (or equivalent) as of any June 30.

We have not paid dividends in the past and have no plans to pay dividends

We plan to reinvest all of our earnings, to the extent we have earnings, in order to develop our pipeline products and cover operating costs and to otherwise become and remain competitive. We do not plan to pay any cash dividends with respect to our securities in the foreseeable future. We cannot assure you that we would, at any time, generate sufficient surplus cash that would be available for distribution to the holders of our ordinary shares as a dividend. Therefore, you should not expect to receive cash dividends on the ordinary shares we are offering.

If we are a "passive foreign investment company," or a PFIC, in the year of the offering or in any future year, a U.S. shareholder may be subject to adverse U.S. federal income tax consequences.

Under the Internal Revenue Code of 1986, as amended, or the Code, we will be a PFIC for any taxable year in which, after the application of certain look-through rules with respect to our subsidiaries, either (i) 75% or more of our gross income consists of passive income or (ii) 50% or more of the average quarterly value of our assets consists of assets that produce, or are held for the production of, passive income (including cash). Passive income includes, among other things, dividends, interest, certain non-active rents and royalties, and capital gains. Based on our operations, income, assets and certain estimates and projections, including as to the relative values of our assets and the treatment of amounts in respect of refundable tax credits from governmental entities we received, or are or may become entitled to receive, as gross income that is not passive income, we do not believe that we were a PFIC in 2020 and do not expect to be a PFIC for our 2021 taxable year. However, the determination whether we are a PFIC is a fact-intensive determination that must be made on an annual basis applying principles and methodologies that are in some circumstances unclear, and whether we will be a PFIC in 2021 or any future taxable year is uncertain because, among other things, (i) we currently own, and will own after the closing of this offering, a substantial amount of passive assets, including cash, (ii) the valuation of our assets that generate non-passive income for PFIC purposes, including our intangible assets, is uncertain and may depend in part of the market price of our ordinary shares or, if applicable, our ordinary shares from time to time, which may fluctuate substantially, (iii) the treatment of amounts in respect of refundable tax credits from governmental entities we received, or are or may become entitled to receive, as gross income that is not passive income is uncertain, and (iv) the composition of our income may vary substantially over time. Accordingly, there can be no assurance that we will not be a PFIC for any taxable year, and our U.S. counsel expresses no opinion with respect to our PFIC status, or with respect to our expectations regarding our PFIC status in 2021 or any future taxable year.

If we are a PFIC for any taxable year during which a U.S. investor holds our ordinary shares, we would continue to be treated as a PFIC with respect to that U.S. investor for all succeeding years during which the U.S. investor holds our ordinary shares, even if we ceased to meet the threshold requirements for PFIC status, unless certain exceptions apply. Such a U.S. investor may be subject to adverse U.S. federal income tax consequences, including (i) the treatment of all or a portion of any gain on the disposition of our ordinary shares as ordinary income (and therefore ineligible for the preferential rates that apply to capital gains with respect to some U.S. investors), (ii) the application of a deferred interest charge on such gain and the receipt of certain dividends on our ordinary shares and (iii) compliance with certain reporting requirements. We do not intend to provide the information that would enable investors to make a qualified electing fund election, or a QEF Election, with respect to their holding of ordinary shares that could mitigate the adverse U.S. federal income tax consequences to a U.S. investor should we be classified as a PFIC.

If we are a controlled foreign corporation for U.S. federal income tax purposes, there could be adverse U.S. federal income tax consequences to certain U.S. holders who own, directly, indirectly or by attribution, ten percent or more of our ordinary shares.

Each "Ten Percent Shareholder" (as defined below) in a non-U.S. corporation that is classified as a "controlled foreign corporation," or 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", investment of earnings in U.S. property, and "global intangible low-taxed income", even if the CFC has made no distributions to its shareholders. 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. 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, indirectly or constructively (through attribution), 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 10% or more of the total combined voting power of all classes of stock entitled to vote of such corporation or 10% or more of the total value of the stock of such corporation. The determination of CFC status is complex and includes attribution rules, the application of which is not entirely certain. A failure by a United States shareholder of a CFC to comply with its reporting obligations may subject the United States shareholder to significant monetary penalties and other adverse tax consequences, and may extend the statute of limitations. We cannot provide any assurances that we will assist U.S. holders in determining whether we or any of our non- U.S. subsidiaries are CFCs or whether any holder is a Ten Percent Shareholder. We also cannot guarantee that we will furnish information that may be necessary to comply with the aforementioned obligations. U.S. holders should consult their own advisors regarding the potential application of these rules.

DIVIDEND POLICY

Since inception, we have not declared or paid any dividends on our ordinary shares. We do not have any current plans to pay any dividends on our ordinary shares in the foreseeable future. We intend to retain most, if not all, of our available funds and any future earnings to operate and expand our business. Because we do not anticipate paying any cash dividends on our ordinary shares in the foreseeable future, capital appreciation, if any, will be your sole source of gains and you may never receive a return on your investment.

The determination to pay dividends will be made at the discretion of our board of directors and may be based on a number of factors, including our future operations and earnings, capital requirements and surplus, general financial condition, contractual and legal restrictions and other factors that the board of directors may deem relevant.

Under current Scottish law, among other things, a company's accumulated realized profits must exceed its accumulated realized losses (on a non-consolidated basis) before dividends can be paid. Accordingly, 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.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of the ordinary shares in this offering will be $____ million, or $ million if the underwriters exercise their option to purchase additional ordinary shares in full, based on an assumed initial public offering price of $ per ordinary share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each $1.00 increase or decrease in the assumed initial public offering price per ordinary share would increase or decrease our net proceeds, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $ _____ million, assuming that the number of ordinary shares offered by us remains the same. An increase or decrease of 1,000,000 ordinary shares from the expected number of ordinary shares to be sold in this offering, assuming no change in the assumed initial public offering price per ordinary share, would increase or decrease our net proceeds from this offering by $ million, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We currently expect to use the net proceeds from this offering primarily as follows:

- to finance the cost of treating patients under our proposed clinical trial TCB 008-001 (a phase 2/3 trial for the treatment of acute myeloid leukemia), including initiating and progressing the patient doses planned as part of the phase 2/3 trial - $_____;
- to finance the cost of treating patients under our proposed clinical trial TCB 008-002 (for the treatment of COVID-19 infections), including completing the patient doses planned as part of the phase 1 trial - $_____;
- to continue the research and development of our proposed GD-T CAR therapies to treat solid cancers including initiating of planned proof of concept studies - $_____; and
- financing our operating overhead costs - $_____.

Based on our current operational plans and assumptions, we expect that the net proceeds from this offering, combined with our current cash, will be sufficient to fund operations through late 2022. We, however will need to raise additional capital in order to continue product development, conduct clinical trials, pursue regulatory approvals, protect our intellectual property, and generally commercialize our product candidates. Our expected use of net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the actual amounts that we will spend on the uses set forth above. We believe opportunities may exist from time to time to expand our current business through the acquisition or in-license of complementary product candidates or programming technologies. While we have no current plans or agreements for any specific acquisitions or in-licenses at this time, we may use a portion of the net proceeds for these purposes.

The amounts and timing of our actual expenditures will depend on numerous factors, including the progress of our clinical trials, the potential for achieving accelerated regulatory approval and the amount of cash used in our operations. We therefore cannot estimate with certainty the amount of net proceeds to be used for the purposes described above. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the net proceeds.

Pending these uses, we plan to invest these net proceeds in short-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the United States and the United Kingdom. The goal with respect to the investment of these net proceeds is capital preservation and liquidity so that such funds are readily available to fund our operations.

CORPORATE REORGANIZATION

We are a private company with limited liability incorporated pursuant to the laws of Scotland in July 2021, under the name TC BioPharm (Holdings) Limited. We were incorporated with nominal share capital for the purpose of becoming the ultimate holding company of TC BioPharm Limited, the company in which our operations are undertaken, and for the purpose of consummating the corporate reorganization described herein. TC BioPharm (Holdings) Limited will not conduct any operations except those as the listed entity, once it has re-registered as a "public limited company", as explained below.

TC BioPharm Limited was incorporated on July 1, 2013 as a private company with limited liability pursuant to the laws of Scotland and has conducted all our operations to date. TC BioPharm Limited has two wholly owned subsidiaries:

- TC BioPharm BV, The Netherlands – incorporated March 2019
- TC BioPharm (North America), Inc. – incorporated June 2021

These two subsidiaries have currently had limited trading activity since their incorporation. Following the offering it is anticipated that TC BioPharm (North America), Inc. will develop operations and a management presence in the United States with a view to expanding our product offerings into that jurisdiction in the future.

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

- All shareholders and holders of options and other rights to purchase shares in TC BioPharm Limited will exchange each of the respective classes of shares. options and/or rights held by them for the same number and classes of newly issued shares, options or rights of TC BioPharm (Holdings) Limited and, as a result, TC BioPharm Limited will become a wholly owned subsidiary of TC BioPharm (Holdings) Limited.

- TC BioPharm (Holdings) Limited will be re-registered under the laws of Scotland as a public limited company, with a change of name to TC BioPharm (Holdings) plc.

- The different classes and nominal values of issued share capital of TC BioPharm (Holdings) plc will be reorganized into a single class of ordinary shares with the same nominal value. Certain outstanding options and rights will be converted into additional ordinary shares and others may be converted into securities of TC BioPharm (Holdings) plc for ordinary shares of the public company.

Investors in this offering will only acquire, and this prospectus only describes, the offering of ordinary shares of TC BioPharm (Holdings) plc.

The steps outlined above are described in further detail below:

Exchange of TC BioPharm Limited securities for TC BioPharm (Holdings) Limited securities

Prior to our corporate reorganization, the share capital of TC BioPharm Limited was divided into two classes: 'A ordinary shares' (par value £0.001 each) and 'ordinary shares' (par value £1.00 each), TC BioPharm Limited also had issued options and granted rights to certain shareholders in connection with prior capital raises. Prior to the effectiveness of the registration statement of which this prospectus forms a part, the shareholders, option holders and rights holders of TC BioPharm Limited will exchange each of these classes of securities of TC BioPharm Limited for the same number and classes of securities in TC BioPharm (Holdings) Limited. As a result, TC BioPharm (Holdings) Limited will become the sole shareholder of TC BioPharm Limited. TC BioPharm Limited and its two subsidiaries in the Netherlands and the United States will continue as the operating companies.

Re-registration of TC BioPharm (Holdings) Limited as a Public Limited Company and Change of Name to TC BioPharm (Holdings) plc

Following the step described above and prior to the completion of this offering, TC BioPharm (Holdings) Limited will re-register as a public limited company and change its name to TC BioPharm (Holdings) plc. This re-registration and change of name will require certain special resolutions to be passed by the shareholders of TC BioPharm (Holdings) Limited to approve the re-registration as a public limited company, the name change to TC BioPharm (Holdings) plc and the adoption of new articles of association for TC BioPharm (Holdings) plc, as would be appropriate for a public company. Certain further resolutions will be required to be passed by the shareholders of TC BioPharm (Holdings) plc prior to the completion of this offering, details of which are set out in the section titled "Description of Share Capital and Articles of Association" " and include adoption of new articles of association that will become effective upon the completion of this offering (see the section entitled Post-IPO Articles of Association) and authorization of our directors to allot shares in the company and grant rights to subscribe for or convert any securities into shares in the company up to a maximum aggregate nominal amount of £ for a period of years.

Reorganization of separate classes of Shares of TC BioPharm (Holdings) plc into a single class of Ordinary Shares

Pursuant to the terms of the articles of association of TC BioPharm (Holdings) plc as will be in effect at as a result of the reorganization, each class of shares of TC BioPharm (Holdings) plc will be reorganized into one class of ordinary shares of TC BioPharm (Holdings) plc, thus our A ordinary shares shall be converted into ordinary shares as a condition of the listing envisaged in this prospectus. Prior to such conversion each ordinary share of £1.00 will be converted into 1 ordinary share of £0.001 each and 999 deferred shares of £0.001 each. The deferred shares are required to facilitate changing the nominal value of the ordinary shares so that they have the same nominal value as the A ordinary shares. The deferred shares shall have nominal economic value and no voting rights; thus they will effectively be worthless and ultimately retired. Our A ordinary shares are entitled to receive additional A ordinary shares for nominal consideration in circumstances where an exit (including a listing of the type envisioned under this prospectus) takes place at a valuation which is less that the valuation at which the relevant A ordinary shares were issued. The issuance of any such additional shares shall take place prior to, or as a condition of, the aforementioned conversion of the A ordinary shares into ordinary shares.

CAPITALIZATION

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

- an actual basis

- a pro forma basis as adjusted to give effect to (i) our corporate reorganization, and (ii) the sale of _____ ordinary shares in this offering.

The pro forma as adjusted calculations assume an initial public offering price of $ per ordinary share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this information together with our audited consolidated financial statements and related notes appearing elsewhere in this prospectus and the

information set forth under the sections titled “Selected Consolidated Financial Data,” “Use of Proceeds” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

	As of December 31, 2020			
	Actual		Pro Forma As Adjusted (1) (2)	
	(in thousands, except share and per share data)			
	£	$	£	$
Cash and cash equivalents	748	1,022		
Total equity attributable to equity holders:				
A Ordinary shares, £0.001 par value; 164,502 shares authorized, issued and outstanding, actual; shares authorized, shares issued and outstanding, pro forma as adjusted	-	-		
Ordinary shares, £1.00 par value; 1,781,301shares authorized,issued and outstanding, actual; shares authorized, shares issued and outstanding, pro forma as adjusted	1,781	2,433		
Share premium	14,761	20,166		
Accumulated deficit	(19,889)	(27,172)		
Total shareholders’ equity	(3,347)	(4,573)		
Total capitalization	(3,347)	(4,573)		

(1) A $1.00 increase (decrease) in the assumed initial public offering price of $ per ordinary share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) pro forma as adjusted amount of each of cash and cash equivalents, total shareholders’ equity and total capitalization by approximately £ million ($ ___million), assuming that the number of ordinary shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts, commissions and offering expenses. An increase (decrease) of 1,000,000 ordinary shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, total shareholders’ equity and total capitalization by approximately £___ million ($___million), assuming no change in the assumed initial public offering price per ordinary share and after deducting estimated underwriting discounts, commissions and offering expenses.

(2) From January 2021 to April 2021 the Company issued an aggregate of 8,956 A ordinary shares at a purchased price of £43.00 per share for an aggregate cash consideration totaling £0.4 million. From April 2021 to September 2021, the Company issued convertible loan notes with a face value amount of $10.0 million. The loan note was issued with a 50% discount. At the time of a listing, 50% of the face value of loan notes outstanding at the time convert to equity in the listed entity at the lower of an entity valuation of $120,000,000 or the value placed on the Company upon listing. The remaining balance of the loan notes are repayable or convertible (at the same value) at the loan note holders’ option in two equal tranches at 90 days and 180 days after the listing date.

The number of ordinary shares outstanding on a pro forma as adjusted basis in the table above does not include:

- Any exercise by the underwriters of the over-allotment option or of the warrant to purchase up to ordinary shares (or ordinary shares if the underwriters exercise in full their option to purchase additional ordinary shares) to be issued to the Representative in connection with this offering.
- Any exercise of options granted under our employee share option plan or any other option grants or rights to purchase shares described in this prospectus.
- Any additional shares to be issued to the holders of our A Ordinary Shares in connection with their rights to receive additional shares upon conversion of A Ordinary Shares into Ordinary Shares in certain circumstances described in our Articles of Association.

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

DILUTION

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

After giving effect to (i) our corporate reorganization and (ii) the sale of ordinary shares in this offering at an assumed initial public offering price of $ per ordinary share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value at _____, 2021 would have been £ per ordinary share (equivalent to $ per ordinary share). This represents an immediate increase in pro forma as adjusted net tangible book value of $ per ordinary share to new investors and immediate dilution of $ per ordinary share to new investors. The following table illustrates this dilution to new investors purchasing ordinary shares in this offering on a per ordinary share basis:

Assumed public sale price per ordinary share	
Historical net tangible book value per share as of _____, 2021	
Increase in net tangible book value per ordinary share after giving effect to this offering and the corporate reorganization	
Pro forma as adjusted net tangible book value per ordinary share after giving effect to this offering as of _____, 2021	
Dilution per ordinary share to new investors participating in this offering	$

The dilution information discussed above is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. A $1.00 increase (decrease) in the assumed initial public offering price of $ per ordinary share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) our pro forma as adjusted net tangible book value as of _____, 2021, after this offering by $ per ordinary share, and would increase (decrease) dilution to new investors by $ per ordinary share, assuming that the number of ordinary shares offered by us, as set forth on the

cover page of this prospectus, remains the same. An increase of 1,000,000 in the number of ordinary shares we are offering would increase our pro forma as adjusted net tangible book value as of _____, 2021, after this offering by $ per ordinary share, and would decrease dilution to new investors by $ per ordinary share, assuming the assumed initial public offering price per ordinary share remains the same. A decrease of 1,000,000 in the number of ordinary shares we are offering would decrease our pro forma as adjusted net tangible book value as of _____, 2021, after this offering by $ per ordinary share, and would increase dilution to new investors by $ per ordinary share, assuming the assumed initial public offering price per ordinary share remains the same.

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

The following table summarizes, on the pro forma as adjusted basis described above as of _____, 2021, the differences between the existing shareholders and the new investors in this offering with respect to the number of ordinary shares, including ordinary shares represented by ordinary share purchased from us, the total consideration paid to us and the average price per share, , based on an assumed initial public offering price of $ per ordinary share, which is the midpoint of the price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Ordinary Shares Purchased		Total Consideration		Average Price Per Ordinary
	Number	Percent	Amount	Percent	Share
Existing shareholders					
New investors					
Total					

A $1.00 increase (decrease) in the assumed initial public offering price of $ per ordinary share, which is the midpoint of the price range on the cover page of this prospectus, would increase or decrease the total consideration paid by new investors by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by percentage points, assuming that the number of ordinary shares offered by us, as set forth on the cover page of this prospectus, remains the same. An increase (decrease) of 1,000,000 in the number of ordinary shares offered by us, as set forth on the cover page of this prospectus, would increase or decrease the total consideration paid by new investors by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by percentage points, assuming no change in the assumed initial public offering price per ordinary share.

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

The table and discussion above exclude:

- Any exercise by the underwriters of the over-allotment option or of the warrant to purchase up to ordinary shares (or ordinary shares if the underwriters exercise in full their option to purchase additional ordinary shares) to be issued to the Representative in connection with this offering.
- Any exercise of options granted under our employee share option plan or any other option grants or rights to purchase shares described in this prospectus.
- Any additional shares to be issued to the holders of our A Ordinary Shares in connection with their rights to receive additional shares upon conversion of A Ordinary Shares into Ordinary Shares in certain circumstances described in our Articles of Association.

SELECTED CONSOLIDATED FINANCIAL DATA

We prepare our consolidated financial statements in accordance with IFRS as issued by the IASB. The following summary historical consolidated financial data as of and for the years ended December 31, 2019 and 2020 have been derived from our audited consolidated financial statements, which are included elsewhere in this prospectus. Our historical results for any prior period are not necessarily indicative of results expected in any future period.

The financial data set forth below should be read in conjunction with, and is qualified by reference to, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and notes thereto included elsewhere in this prospectus.

We maintain our books and records in pounds sterling, and we prepare our financial statements in accordance with IFRS as issued by the IASB. We report our financial results in pounds sterling. For the convenience of the reader, we have translated pound sterling amounts in the tables below as of December 31, 2020 and for the year ended December 31, 2020 into U.S. dollars at the noon buying rate of the Federal Reserve Bank of New York on December 31, 2020, which was £1.00 to $1.3662. These translations are solely for illustration and convenience and should not be considered representations that any amounts have been, could have been or could be converted into U.S. dollars at that or any other exchange rate as of that or any other date.

	Year Ended December 31,		
	2019	2020	2020
	(in thousands, except per share data)		
Consolidated Income Statement:			
Revenue	£ 3,427	£ 1,979	$ 2,703
Research and development expenses	(8,614)	£ (6,680)	$ (9,126)
Administrative expenses	(3,015)	£ (2,207)	$ (3,015)
Other income	1,561	£ 569	$ 778
Finance income - interest	22	£ 1	$ 1
Finance costs	(275)	£ (292)	$ (399)
Loss before tax	(6,894)	£ (6,630)	$ (9,058)

Income tax credit	826	£ 1,172	$ 1,601
Net loss for the year	(6,068)	(5,458)	(7,457)
Total other comprehensive income/(loss)	-	-	-
Total comprehensive loss for the year	£ (6,068)	£ (5,458)	$ (7,457)
Basic and diluted loss per share	£ (3.39)	£ (2.88)	$ (3.93)
Weighted average shares outstanding	1,792	1,892	

	As at December 31,		
	2019	2020	2020
		(in thousands)	
Consolidated Statement of Financial Position items:			
Cash and cash equivalents	£ 956	£ 748	$ 1,022
Working capital [(1)]	336	(1,970)	(2,691)
Total assets	10,140	7,267	9,928
Total liabilities	(12,679)	(10,614)	(14,500)
Share capital and share premium account	12,877	16,542	22,600
Accumulated deficit	(15,416)	(19,889)	(27,173)
Total equity attributable to the equity shareholders of the parent	(2,539)	(3,347)	(4,573)

(1). Working capital is defined as current assets less current liabilities

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

You should read the following discussion and analysis of financial condition and operating results together with the information in "Selected Consolidated Financial Data" and our consolidated financial statements and the related notes to those statements included elsewhere in this prospectus. We present our consolidated financial statements in pounds sterling and in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or IASB, which may differ in material respects from generally accepted accounting principles in other jurisdictions, including generally accepted accounting principles in the United States, or U.S. GAAP.

The statements in this discussion regarding industry outlook, our expectations regarding our future performance, liquidity and capital resources and other non-historical statements are forward-looking statements. These forward-looking statements are subject to numerous risks and uncertainties, including the risks and uncertainties described in the sections titled "Risk Factors." Our actual results may differ materially from those contained in the following discussion and analysis, as well as the section titled "Special Note Regarding Forward-Looking Statements.".

In July 2021, TC BioPharm (Holdings) Limited was incorporated under the laws of Scotland to become the holding company for TC BioPharm Limited pursuant to our corporate reorganization. See "Corporate Reorganization." Prior to this offering, TC BioPharm (Holdings) Limited has only engaged in activities incidental to its formation, the corporate reorganization and this offering. Accordingly, a discussion and analysis of the results of operations and financial condition of TC BioPharm (Holdings) Limited for the period of its operations prior to the corporate reorganization would not be meaningful and are not presented. Following the corporate reorganization, the historical consolidated financial statements of TC BioPharm (Holdings) plc will be the historical financial results of TC BioPharm Limited for all periods presented.

Overview

TC BioPharm is a clinical-stage biopharmaceutical company with a cell-based product pipeline capable of treating a variety of disorders including cancer and infectious disease.

TCB is currently developing a pipeline of next generation CAR-T treatments with a number of advantages over conventional approaches. TC BioPharm owns its two main patent families in the GD CAR-T space, providing robust IP protection and manufactures all products in-house, leading to a much lower cost of goods than competitor products.

Conventional CAR-T treatments have seen many patients experience treatment-related adverse events and are limited to liquid tumors. Furthermore, the cost of manufacture of such treatments is high which can lead to difficulties in scaling an infrastructure to meet patient demand.

Our approach takes advantage of the inherent specificity of GD T cells against phosphoantigens which are expressed only by cancerous and infected cells. This ensures that the cytotoxic effect of the CAR-expressing Gamma-delta T cells will be focused on the pathogenic cells expressing the target antigen whilst ignoring healthy cells. This is ensured by the fact that when the target antigen is expressed on a healthy cell, the Gamma-delta CAR-T cell is not activated. This technology enables the targeting of cell surface antigens which have previously been deemed 'undruggable' due to their expression on healthy/non-diseased tissue. Thus, our CAR-T products have the potential to treat a wider range of tumors than can be targeted with present strategies.

Going concern

As of December 31, 2020, the Company had an accumulated deficit of £20.0 million. The Company has incurred recurring losses and has no sales as no products have obtained the necessary regulatory approval in order to market products. The Company expects to continue to incur losses as a result of costs and expenses related to the Company's clinical development and corporate general and administrative activities.

The Company had negative cash flows from operating activities during the year ended December 31, 2020 of £3.4 million, and current projections indicate that the Company will have continued negative cash flows for the foreseeable future. Net losses incurred for the year ended December 31, 2020 and 2019, amounted to £5.5 million and £6.1 million, respectively.

At December 31, 2020, the Company's cash and cash equivalents amounted to £0.7 million, current assets amounted to £2.2 million and current liabilities amounted to £4.2 million. The Company closed on the sale of A Ordinary shares in August 2020 resulting in the issuance of 79,454 shares for £3.4 million in gross proceeds and a further 8,956 A Ordinary shares subsequent to December 31, 2020 raising an additional £0.4 million of gross proceeds. This funding is in addition to £3.7 million raised in 2019 and early 2020 and brings the total equity raised to date to over £16 million. The Company has additionally issued convertible loan notes subsequent to December 31, 2020 totaling

£3.8 million. The existing cash and cash equivalents will not be sufficient to enable the Company to meet its short-term obligations or long-term plans, including commercialization of clinical pipeline products, if approved, or initiation or completion of future registration studies.

Management believes that the net proceeds from this offering and the existing cash and cash equivalents will be sufficient to fund the current operating plans through late 2022. Should the proceeds from listing its securities not materialize or occur as expected, management will need to consider alternative arrangements and such arrangements could have a potentially significant negative impact on the current net asset value of the Group. The Company will consider the following ways to fund its operations including: (1) raising additional capital through equity and/or debt financings; (2) new commercial relationships to help fund future clinical trial costs (i.e. licensing and partnerships); (3) reducing and/or deferring discretionary spending on one or more research and development programs; and/or (4) restructuring operations to change its overhead structure. The Company's future liquidity needs, and ability to address those needs, will largely be determined by the success of its product candidates and key development and regulatory events and its decisions in the future.

The accompanying financial statements have been prepared in conformity with IFRS as issued by IASB, which contemplate continuation of the Company as a going concern. The Company has not established a source of revenues sufficient to cover its operating costs, and as such, have been dependent on funding operations primarily through the sale of equity securities and collaboration revenue. The Company expects to incur further losses over the next several years as it develops its business. The Company has spent, and expects to continue to spend, a substantial amount of funds to implement its business strategy, including its planned product development efforts, preparation for its planned clinical trials, performance of clinical trials and its research and discovery efforts. Although proceeds from listing its securities have not yet been obtained by the Group, management believes it is likely that adequate funding from the anticipated proceeds from listing its securities will be received, such that the Company consequently will have sufficient liquidity to fund the Company's operating activities for at least the next 12 months. On this basis management continues to view the Company as a going concern.

Management's plans include continuing to finance operations through the issuance of additional equity instruments and continuing the development of the current pipeline or through the acquisition of a third party or license agreement. Any transactions which occur may contain covenants that restrict the ability of management to operate the business or may have rights, preferences or privileges senior to the Company's current shareholders and may dilute current shareholders of the Company.

Engaging in a transaction with a third party is contingent on negotiations among the parties; therefore, there is no certainty that the Company will enter into such an agreement should the Company so desire.

There can be no assurance that the Company will achieve or sustain positive cash flows from operations or profitability. If the Company is unable to maintain adequate liquidity, future operations will need to be scaled back or discontinued. These conditions raise substantial doubt about the Company's ability to continue as a going concern. The Company's consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Financial Operations Overview

Revenues

We do not have any approved products. Accordingly, we have not generated any revenue from the sale of products, and we do not expect to generate any such revenue unless and until we obtain regulatory approvals for, and commercialize any of, our product candidates. In the future, we will seek to generate revenue primarily from product sales and, potentially, regional or global collaborations with strategic partners, which may produce license fee income.

During the relevant periods we had two collaboration agreements with global pharmaceutical companies. Revenue arose under these contracts as a result of (i) us recharging development costs incurred by us under those agreements to our partners and (ii) on upfront payments received under those collaboration agreements, which are taken to revenue on a straight-line basis over the estimated term over which the services promised will be provided. In addition, the business is entitled to receive contractual payments, which would be recorded as revenue, when and if certain clinical trial performance milestones are met on partnered programs. Our collaborations are at a pre-clinical stage and there can be no assurance that we will receive any future milestone revenues.

Operating Expenses

We classify our operating expenses into two categories: research and development expenses and administrative expenses. Personnel costs, including salaries, benefits, bonuses and share-based payment expense, comprise a significant component of each of these expense categories. We allocate expenses associated with personnel costs based on the function performed by the respective employees.

Research and Development Expenses

The largest component of our total operating expenses since inception has been costs related to our research and development activities, including the preclinical and clinical development of our product candidates.

Research and development costs are expensed as incurred. Our research and development expense primarily consist of:

- consumable costs related to research and development of pharmaceutical or biologic therapy products for preclinical studies and clinical trials;
- costs related to manufacturing active pharmaceutical or biologic therapy products for preclinical studies and clinical trials;
- salaries and personnel-related costs, including bonuses, benefits and any share-based payment expense, for our personnel performing research and development activities or managing those activities that have been out-sourced;
- fees paid to consultants and other third parties who support our product candidate development;
- third party costs incurred in connection with preclinical studies and clinical trials from investigative sites and contract research organizations, or CROs;
- other costs incurred in seeking regulatory approval of our product candidates;
- costs of related office space allocated to our research and development function, materials and equipment; and
- payments under our license agreements.

The successful development of our product candidates is highly uncertain. 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. In addition, the cost of development of our CAR-T range of products is likely to be substantially higher than costs incurred historically in the development of our unmodified products. Accordingly, we expect research and development costs to increase significantly for the foreseeable future as programs progress. However, we do not believe that it is possible at this time to accurately project total program-specific expenses through commercialization. We are also unable to predict when, if ever, material net cash inflows will commence from our product candidates to offset these expenses. Our expenditures on current and future preclinical and clinical development programs are subject to numerous uncertainties in timing and cost to

completion.

The duration, costs and timing of clinical trials and development of our product candidates will depend on a variety of factors including:

- the scope, rate of progress, results and expenses of our ongoing and future clinical trials, preclinical studies and research and development activities;
- the potential need for additional clinical trials or preclinical studies requested by regulatory agencies;
- potential uncertainties in clinical trial enrolment rates or drop-out or discontinuation rates of patients;
- competition with other drug development companies in, and the related expense of, identifying and enrolling patients in our clinical trials and contracting with third-party manufacturers for the production of the drug product needed for our clinical trials;
- the achievement of milestones requiring payments under in-licensing agreements;
- any significant changes in government regulation;
- the terms and timing of any regulatory approvals;
- the expense of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights; and
- the ease, cost and ability to market, commercialize and achieve market acceptance for any of our product candidates, if approved.

We track research and development expenses on a program-by-program basis for both clinical-stage and preclinical product candidates. Manufacturing, clinical trial and preclinical research and development expenses are assigned or allocated to individual product candidates. We do not allocate employee costs or facility expenses, 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 research and development as well as for managing our preclinical development, process development, manufacturing and clinical development activities.

The table below summarizes our research and development expenses incurred by program:

	Year Ended December 31,		
	2019	2020	Change
	£	£	£
		(in thousands)	
Direct research and development expenses by program:			
TCB 008-001	977	283	(694)
TCB 008-002	-	323	323
Partner research and development programs	945	71	(874)
Other research and development programs	681	223	(458)
Total direct research and development expense	2,603	900	(1,703)
Research and development and unallocated costs:			
Personnel related (including share-based compensation)	4,594	4,276	(318)
Indirect research and development expense	1,417	1,504	87
Total research and development expenses	8,614	6,680	(1,934)

Administrative Expenses.

Administrative expenses consist of personnel costs, other administrative expenses and other expenses for outside professional services, including legal, audit and accounting services. Personnel costs consist of salaries, bonuses, benefits and share-based payment expense. Other administrative expenses include office space-related costs not otherwise allocated to research and development expense, professional fees and costs of our information systems. We anticipate that our administrative expenses will continue to increase in the future as we increase our headcount to support our continued research and development and potential commercialization of our product candidates. In future we expect to incur additional expenses as a public company, including expenses related to compliance with the rules and regulations of the SEC and Nasdaq, additional insurance expenses, and expenses related to investor relations activities and other administrative and professional services.

Finance Income - Interest

Finance income relates to interest earned on our cash and cash equivalents and short-term deposits.

Finance Costs

Finance expense includes interest expense representing the unwinding of discounted lease liabilities in respect of assets presented on our balance sheet in accordance with IFRS 16 “Leases”.

Income Tax Credit

We are subject to corporate taxation in the United Kingdom. Due to the nature of our business, we have generated losses since inception. Our income tax credit recognized represents the sum of the research and development tax credits recoverable in the United Kingdom.

As a company that carries out extensive research and development activities, we benefit from the U.K. research and development tax credit regime and are able to surrender some of our losses for a cash rebate of up to 33.35% of expenditures related to eligible research and development projects. Qualifying expenditures largely comprise clinical trial and manufacturing costs, employment costs for relevant staff and consumables incurred as part of research and development projects. Certain subcontracted qualifying research and development expenditures are eligible for a cash rebate of up to 21.68%. A large portion of costs relating to our research and development, clinical trials and manufacturing activities are eligible for inclusion within these tax credit cash rebate claims.

We may not be able to continue to claim research and development tax credits in the future under the current research and development tax credit scheme because we may

no longer qualify as a small or medium-sized company. However, we may be able to file under a large company scheme.

Tax losses that have not been utilized to offset taxable income or surrendered in connection with the aforementioned research and development tax credits are carried forward to be offset against future taxable profits. After accounting for tax credits receivable, there were accumulated tax losses for carry forward in the United Kingdom of £12.8 million as of December 31, 2020. Unrecognized deferred tax assets totaling £3.6 million consist of temporary differences on tax losses and share-based compensation arrangements. No deferred tax asset is recognized in respect of accumulated tax losses or temporary differences on share-based compensation arrangements because future profits are not sufficiently certain.

In the event we generate revenues in the future, we may benefit from the UK government's "patent box" initiative that allows profits attributable to revenues from patents registered in the United Kingdom or European Union or patented products to be taxed at a lower rate than other streams of revenue. The current rate of tax for relevant streams of revenue for companies receiving this relief is 10%.

Value Added Tax, or VAT, is charged on all qualifying goods and services by VAT-registered businesses. An amount of 20% of goods and services is added to all sales invoices and is payable to the U.K. tax authorities. Similarly, VAT paid on purchase invoices is reclaimable from the U.K. tax authorities.

Results of Operations

Fiscal year ended December 31, 2020 compared to the fiscal year ended December 31, 2019

The following table summarizes the results of our operations for the years ended December 31, 2020 and 2019, together with the changes to those items.

	Year Ended December 31,		Change	
	2020	2019	Increase/(Decrease)	
	£	£	£	%
	(in thousands, except for percentages)			
Revenue	**1,979**	**3,427**	**(1,448)**	**(42)%**
Research and development expenses	(6,680)	(8,614)	(1,934)	(22)%
Administrative expenses	(2,207)	(3,015)	(908)	(30)%
Other income	569	1,561	(992)	(64)%
Finance income - interest	1	22	(21)	(95)%
Finance costs	(292)	(275)	17	6%
Loss before tax	**(6,630)**	**(6,894)**	**(364)**	**(5)%**
Income tax credit	1,172	826	346	42%
Net loss for the year	**(5,458)**	**(6,068)**	**(710)**	**(12)%**

Revenue

Revenue decreased by 42% to £2.0 million for the year ended December 31, 2020 from £3.4 million for the year ended December 31, 2019. This reflected more research and development work being done in 2020 by our collaboration partners to progress programs, as those programs naturally progress through phases of activity to be undertaken by partners rather than ourselves, resulting in a corresponding reduction in incurred research and development spend which is recharged (as revenue to us) to our collaboration partners.

Research and development expenses

Research and development expenses decreased by 22% to £6.7 million for the year ended December 31, 2020 from £8.6 million for the year ended December 31, 2019. The reduction in direct research and development expenses of £1.7 million in 2020 reflected the impact of a reduced level of clinical activity due to the impact of the coronavirus pandemic of £2.0 million offset by increased expense related to the new clinical program in response to the pandemic of £0.3 million. Personnel costs reduced to £4.3 million for the year ended December 31, 2020 from £4.6 million for the year ended December 31, 2019 reflecting the reduced headcount during 2020. Indirect research and development expense, which contains a number of fixed costs such as facility and property expenditure increased to £1.5 million for the year ended December 31, 2020 from £1.4 million for the year ended December 31, 2019. Our research and development expenses are highly dependent on the phases of our research projects and therefore fluctuate from year to year. We expect our total research and development expenses in the year ended December 31, 2021 to be higher than our expenses in our fiscal years ended December 31, 2020 and 2019 due to the ongoing advancement of our preclinical programs and clinical trials.

Administrative expenses

Administrative expenses decreased by 30% to £2.2 million for the year ended December 31, 2020 from £3.0 million for the year ended December 31, 2019. Similarly, to research and development expenses, the reduction reflected a reduced level of activity to the impact of the pandemic and we expect these costs to increase in 2021.

Other Income

Other income has decreased from £1.6 million in the year ended December 31, 2019 to £0.6 million for the year ended December 31, 2020. This is due to a reduced amount of program related grant claims being awarded and recognized during 2020. During the year ended December 31, 2020 the Company recognized employee furlough related government grants totaling £0.5 million.

Finance Income - Interest

Finance income - interest consisted of bank interest earned on cash balances and short-term deposits. Finance income – interest was less than £0.1 million for the year ended December 31, 2020 and the year ended December 31, 2019. Interest income reduced during 2020 with reduced levels of short-term deposits and cash at bank. Interest income consisted of bank interest earned on cash balances and short-term deposits.

Finance Costs

Finance costs related to sale and leaseback finance costs and interest computed on the liabilities associated with right of use assets. Finance costs were less than £0.3 million for the year ended December 31, 2020 and the year ended December 31, 2019. Interest expenses increased by 6% in 2020 reflecting a full year of lease costs from additional property leases established during the prior year.

Income tax credit

The research and development tax credit increased by 42% to £1.2 million for the year ended December 31, 2020 from £0.8 million in the same period in 2019. The increase was driven by the increase in the proportion of those expenditures that are eligible for research and development tax credits.

Liquidity and Capital Resources

Sources of Funds

For the years ended December 31, 2020 and December 31, 2019, we incurred net losses of £5.5 million and £6.1 million, respectively. We used £3.4 million of cash in operating activities in the year ended December 31, 2020 and used £6.7 million of cash in operating activities for the year ended December 31, 2019.

As of December 31, 2020, and December 31, 2019, we had cash and cash equivalents of £0.7 million and £1.0 million respectively. From incorporation through to September 17, 2021, we have financed our operations primarily through private placements of equity securities, convertible loans, government grants, research and development tax credits, and payments for collaborative research and development services totaling £43.1 million.

During 2021, TCB obtained shareholder approval to issue convertible loan notes with a face value of up to an aggregate of $20,000,000. The loan note is issued with a 50% discount. At the time of the public offering, 50% of the face value of the loan notes then outstanding will convert into ordinary shares of TCB at the lower of an entity valuation of $120,000,000 or the market value placed on the Company in the offering. The remaining balance due on the loan notes is repayable or convertible (at the same value) at the loan note holders' option in two equal tranches at 90 days and 180 days after the offering date. From April 30, 2021 to September 17, 2021 the Company had issued convertible loan notes with a face value of $10.0 million. In the event of a default (including if the Company does not complete its public offering before 15th December 2021) the outstanding notes become repayable on demand at their face value.

If we obtain regulatory approval to advance any of our GD-T cell therapeutic candidates into pivotal clinical trials or to commercialization, we will incur significant research and development expenses, and also commercialization expenses related to product sales, marketing, manufacturing and distribution and additional funding would be required. Where appropriate, we will seek to fund our operations through milestone payments under our agreements with collaboration partners and additional equity financings.

Cash Flows

The following table summarizes the results of our cash flows for the below respective periods:

	Year Ended December 31,		Change	
	2020	2019	Increase/(Decrease)	
	£	£	£	%
	(in thousands, except for percentages)			
Consolidated Cash Flow Statement:				
Net cash flows used in operating activities	(3,432)	(6,730)	3,298	49%
Net cash flows used in investing activities	(205)	(2,197)	1,992	91%
Net cash flows from financing activities	3,430	3,274	156	5%
Net decrease in cash and cash equivalents	(207)	(5,653)	5,446	96%

Operating Activities

Net cash used in operating activities was £3.4 million for the year ended December, 31, 2020. The loss before taxation for the year ended December 31, 2020 was £6.6 million, which included noncash items of £1.7 million. The noncash items consisted primarily of depreciation, amortization and equity-settled share-based compensation expense. The reduction in working capital in the period was £1.8 million reflecting the receipt of accrued grant income and tax credits in the year.

Net cash used in operating activities was £6.7 million for the year ended December, 31, 2019. The loss before taxation for the year ended December 31, 2019 was £6.9 million, which included noncash items of £1.7 million. The noncash items consisted primarily of depreciation, amortization and equity-settled share-based compensation expense. The increase in working capital in the period was £0.3 million reflecting the anticipated receipt of accrued grant income and tax credits post year end.

Investing Activities

Net cash used in investing activities was £0.2 million and £2.2 million for the year ended December 31, 2020 and year ended December 31, 2019, respectively. These amounts related primarily to purchases of property, plant and equipment related to the expansion of our laboratory facilities in the United Kingdom during 2019.

Financing Activities

Net cash from financing activities was £3.4 million and £3.3 million for the year ended December 31, 2020 and year ended December 31, 2019, respectively.

For the year ended December 31, 2020, these amounts consisted of proceeds from the issue of ordinary share capital (£4.0 million) offset by the repayment of sale and leaseback asset finance obligations and lease liabilities (£0.4 million). For the period ended December 31, 2019, these amounts consisted of proceeds from the issue of ordinary share capital and stock subscription received (£3.1 million) and receipt of sale and leaseback asset finance (£0.3 million), which was offset by the repayment of sale and leaseback asset finance obligations and lease liabilities (£0.2 million).

Funding Requirements

We expect our expenses to increase substantially in connection with our ongoing activities, particularly as we advance the preclinical activities and clinical trials of our product candidates. Our expenses will increase as we (i) advance our product candidates through phases of clinical development and, potentially, registration, (ii) fund our research and development activities to further expand our GD-T cell technologies and develop future product candidates and follow-on versions of our more advanced product candidates, (iii) fund our manufacturing activities and the expansion of our plant to support our ongoing and future clinical trials and potential commercial launch; and (iv) fund our general operations.

Following this offering, we will be a publicly traded company and will incur significant legal, accounting and other expenses that we were not required to incur as a private company. In addition, the Sarbanes-Oxley Act of 2002, as well as rules adopted by the SEC and The Nasdaq Stock Market, requires public companies to implement specified corporate governance practices that are currently inapplicable to us as a private company. We expect these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly.

We expect that our cash resources immediately after this offering will enable us to fund our current operating expenses and capital expenditure requirements through late 2022. 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. We will require additional capital to continue to conduct our business and implement our business plans.

Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical product candidates, we are unable to estimate the amount of our future working capital requirements, which will depend on and are likely to increase significantly as a result of many uncertain factors, including:

- the scope, progress, outcome and costs of our clinical trials and other research and development activities;
- the costs, timing, receipt and terms of any marketing approvals from applicable regulatory authorities;
- the costs of future sales and marketing activities, including cost of product sales, medical regulatory affairs, marketing, manufacturing and distribution, for any of our product candidates for which we receive marketing approval;
- the amount and timing of the receipt of any future revenue from commercial sale of our products, should any of our product candidates receive marketing approval and become successful in the market;
- the impact of the COVID-19 pandemic on our ability to progress research and development and clinical trials;
- the costs and timing of hiring new employees to support our future growth;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims; and
- the cost of and extent to which we in-license or acquire additional product candidates or technologies.

Until such time, if ever, that we can generate product revenue sufficient to achieve profitability, we expect to finance our future cash needs through equity offerings and debt and a combination thereof, including securities convertible into ordinary shares and through development collaborations with partners.

To the extent that we raise additional capital through the sale of equity, our shareholders' ownership interest will be diluted.

If we raise additional funds through other third-party funding, collaborations 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.

If we are unable to raise additional funds through equity financings 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. If we raise funding through borrowings, we may have to enter into onerous covenants which may adversely impact our operations and our ability to obtain further funding.

There is no assurance that we will be able to raise any further funding, or if further funding is offered, it will be on terms that are acceptable to us and may bring dilution which is unacceptable to our shareholders.

Contractual Obligations and Commitments

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

	Payments Due by Period				
	Total	Less than 1 Year	1 to 3 Years	4 to 5 Years	More than 5 Years
	(in thousands)				
Lease liabilities[(1)]	£4,129	£ 694	£ 1,201	£ 894	£ 1,340

(1) Amounts in the table reflect minimum payments due for our leases of office, laboratory and manufacturing space.

Lease liabilities relate to our leased corporate headquarters and manufacturing space in the United Kingdom. We entered into a lease for our corporate headquarters in April 2014 and, as part of this agreement, exercised an option to lease additional space in January 2017 and March 2019. The overall lease expires in March 2027.

Other commitments

We enter into contracts in the normal course of business with third parties who support us in the conduct of certain specialist aspects of clinical trials and preclinical research studies and testing. These contracts are generally cancellable by us upon prior notice. Payments due upon cancellation consist only of payments for services provided or expenses incurred, including noncancelable obligations of our service providers, up to the date of cancellation. These payments are not included in the preceding table, as the amount and timing of such payments are not known.

We have not included any contingent payment obligations that we may incur upon achievement of clinical, regulatory and commercial milestones, as applicable, or royalty payments that we may be required to make under in-licensing agreements which we have or may enter into which could be payable if any of our products generate future sales or license revenue as the amount, timing and likelihood of such payments are not known and are not anticipated in the near term or before we generate significant revenues.

Off-Balance Sheet Arrangements

During the periods presented, we did not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

Critical Judgments in Applying Our Accounting Policies

In the application of our accounting policies, we are required to make judgments, estimates, and assumptions about the value of assets and liabilities for which there is

no definitive third party reference. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

Our estimates and assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revisions and future periods if the revision affects both current and future periods.

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

Going Concern

Our evaluation of our ability to continue as a going concern requires us to evaluate our future sources and uses of cash sufficient to fund our currently expected operations in conducting research and development activities one year from the date our consolidated financial statements are issued. We evaluate the probability associated with each source and use of cash resources in making our going concern determination. The research and development of cell therapies is inherently subject to uncertainty. Further detail about the Company's ability to continue as a going concern are described in Note 1 to the consolidated financial statements.

Revenue from contracts with customers

Identification of contracts with pharma partners

The Company has entered into collaboration agreements with a number of parties. Application of IFRS 15 "Revenue from contracts and customers" on collaboration agreements requires judgement around whether these contracts were within the scope of IFRS 15.

The Company's core business is around researching and developing immunotherapies and the contracts entered into with pharma partners are consistent with those objectives and the outputs are in line with the Company's ordinary activities.

The contracts with pharma partners do not involve sharing the risks and benefits of a joint arrangement in the sense of IFRS 11 "Joint arrangements".

In light of the nature of the work being undertaken with pharma partners, and the fact that these agreements have commercial substance with clearly defined milestones and rights and obligations for each party, management concluded that these collaboration agreements meet the definition of a contract with a customer and fall within the scope of IFRS 15.

Identification of performance obligations in contracts

The collaboration agreements entered into by the Company include obligations to fulfil the research and development programs. The Company identified, from reviews of the relevant agreements, that there are no specific obligations but an implied performance obligation to deliver each overall contracted research and development program. Reflecting the broad nature of these obligations, spanning the full duration of the contract, the obligations are satisfied over the expected duration of the relevant contract.

Determination and allocation of the transaction price

The collaboration agreements include a number of elements of consideration and are allocated to the satisfaction of the relevant obligation.

The Company can receive upfront payments as part of the consideration. The Company has determined that upfront payments are in connection with the performance of the research and development program and are satisfied during the duration of the contract.

The business is entitled to receive contractual milestone payments on achievement of certain performance obligations, with revenue being recognised in the same way. The relevant transaction price is allocated to the related milestone.

Key Sources of Estimation Uncertainty

The key assumptions concerning the future, and other key sources of estimation uncertainty at the balance sheet date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next year are discussed below.

Revenue from contracts with customers

Timing of revenue recognition

Revenue from upfront payments in connection with collaboration agreements is recognised over the estimated term over which the services promised will be provided. This term was estimated by management at the inception of each contract and evaluated at the year end. The estimated time to complete as at the year end is 35 months.

The resulting deferred income liabilities are disclosed in the consolidated financial statements attached to this prospectus. Due to the uncertainty around the time to complete multi-year collaboration programs it is possible that the estimated terms may be extended. If the estimated term of the current contracts had been adjusted by one year, then it would be expected that the corresponding revenue would have decreased by £588,888 and deferred income liabilities would have increased by £588,888. The business is entitled to receive contractual milestone payments on achievement of certain performance obligations. Due to significant uncertainties associated with the achievement of contractual milestones, no revenue has been recognised to date from milestone payments and these will be recognised when the milestones are certain to occur.

Valuation of ordinary shares

As there has been no public market for the Group's ordinary shares to date, the estimated fair value of the ordinary shares has been determined by management, considering the most recently available third-party valuations of the Group's ordinary shares, and the 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.

After considering the market approach, the income approach and the asset-based approach, we utilized the market approach to determine the estimated fair value of our ordinary shares based on its determination that this approach was most appropriate for a clinical-stage biopharmaceutical company at this point in its development, using the option-pricing method ("OPM"). Consideration was given to the American Institute of Certified Public Accountants' Practice Aid: "Valuation of Privately-Held Company Equity Securities Issued as Compensation," or the Practice Aid, in addition to input from management, the likelihood of completing an IPO and recent transactions with investors.

Once a public trading market for our ordinary shares has been established in connection with the completion of this offering, it will no longer be necessary to estimate the fair value of our ordinary shares in connection with our accounting for share-based payment expenses, as the fair value of our ordinary shares will be determinable by reference to the trading price of our ordinary shares on Nasdaq.

Share option and other share-based payment assumptions

The determination of the value of share-based payments requires management to use professional expertise to arrive at assumptions to be used to calculate the value of the share-based payment. The estimated fair value of the options outstanding in the period was calculated by applying a Monte Carlo Simulation for those options issued in 2020 and a Black Scholes Model for those options issued in prior periods. The most appropriate approach is selected with reference to the share capital structure at the time of grant and the directors need to use judgement in setting the key assumptions. Further details are included in the consolidated financial statements attached to this prospectus.

The Company determines the share price used in the fair value calculation by reference to shares issued close to the time of grant of the share options. Consideration is given to the nature of the shares issued and investors in the rounds when evaluating the share price as well as an assessment of any factors that were relevant and which may have changed from the date of the most recent share issuance to the date of grant.. As a privately held company, the Company's share price does not have sufficient historical volatility to adequately assess the fair value of the share option grants. As a result, management considered the historical volatility of other comparable publicly traded companies and, based on this analysis, concluded that a volatility range of 70% to 75% was appropriate for the valuation of our share options.

The expected life of the option, beginning with the option grant date, was used in valuing our share options. The expected life used in the calculation of share-based payment expense is the time from the grant date to the expected exercise date. The life of the options, which is a subjective estimate that can materially alter the valuation, depends on the option expiration date, volatility of the underlying shares and vesting features.

IFRS 2 "Share-based Payment" requires the use of the risk-free rate of the country in which the entity's shares are principally traded with a remaining term equal to the expected life of the option. This should also be the risk-free interest rate of the country in whose currency the exercise price is expressed. The Company has applied the appropriate risk-free rate, based on 4-year, 3-year and 2-year UK government bond yields as at the respective grant dates.

Quantitative and Qualitative Disclosure about Market Risk

We are exposed to a variety of risks in the ordinary course of our business, including, but not limited to, currency risk, liquidity risk and credit risk, as discussed below. We regularly assess each of these risks to minimize any adverse effects on our business as a result of those factors. See Note 22 to our audited consolidated financial statements for further discussion of our exposure to these risks.

Currency risk

We have transactions denominated in various currencies, with the principal currency exposure being fluctuations in U.S. Dollars ("USD") and Euros. The impact of our exposure to foreign currency is not considered to be material to the overall results.

Liquidity risk

We manage liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

We utilize shareholder funds, convertible loans, collaboration agreements, grant funding and asset finance to support our working capital requirements. All cash funds are held with a maturity of three months or less.

Credit risk

We only engage with banks and financial institutions with a Standard and Poor credit rating of BBB or greater.

We have a small number of customers through our collaboration agreements. To manage the credit risks around collaboration agreements we will assess the creditworthiness of partners as part of the engagement process.

We have monitoring procedures in place to identify and follow up on any overdue debts.

Interest rate risk

The Company is exposed to no material interest rate risk.

BUSINESS

Overview

TC BioPharm is a clinical-stage biopharmaceutical company focused on developing novel immunotherapy products based on our proprietary allogeneic gamma delta T (GD-T) cell platform. Harnessing the innate ability of GD-Ts has enabled TCB to develop a range of clinical-stage cell therapies designed to combat cancer and viral infection.

In-house clinical studies have demonstrated that TCB's unmodified allogeneic GD-T products are (i) well tolerated and (ii) able to reduce cancer burden and improve life-expectancy of patients with late-stage blood cancer, known as acute myeloid leukemia – AML. Based on clinical data generated by TCB, we believe that unmodified GD-Ts have the potential to treat all blood cancers.

TCB now is embarking on phase 2b-into-pivotal (phase 3) clinical studies with a view to launching its first oncology product for the treatment of AML during 2023. Clinical results generated thus far have enabled TCB to obtain FDA orphan drug status for treatment of AML.

In addition to unmodified allogenic GD-Ts for treatment of blood cancers, TCB also is developing an innovative range of genetically-modified CAR-T products for treatment of solid cancers. We believe that solid cancers are more difficult to treat than blood cancers and may require the addition of a CAR (chimeric antigen receptor) (i) to help therapeutic cells to 'navigate' into diseased cancerous tissue and (ii) to retain therapeutic cells in-situ at the lesion for maximal efficacy (increased persistence).

In response to the recent pandemic, TCB is planning clinical studies to treat patients with both acute and long covid symptoms.

In order to manufacture our portfolio of allogeneic products, we select the highest quality GD-T cells from healthy donors, activate the cells and grow them in large numbers at our in-house GMP-compliant manufacturing facility before administration to a patient in order to target and then destroy malignant or virally-infected tissues. We

believe that TCB has introduced a step-change to our manufacturing platform by implementing a freeze-thaw process that will allow product to be shipped from cleanroom to patient without any shelf-life issue. Resulting products, we believe, will be more cost-effective and straightforward to ship form cleanroom to clinic.

Business Strategy

TC BioPharm has taken a step-wise approach to clinical development and commercialization. To achieve this, we have made the clinical transition from autologous GD-Ts to allogeneic GD-Ts to CAR-modified allogeneic GD-Ts. Our commercialization strategy is to introduce products firstly in blood cancers (AML initially) and then solid tumor indications.

Our strategic objective is to build a global therapeutic business with an extensive portfolio of GD-T (D1 & D2) cell-based products with the potential to significantly improve the outcomes of patients with cancer and infectious disease. In order to achieve our objective, TCB is focused on delivering success in the following areas:

Progress unmodified GD-T2s into Phase 2/3 clinical trials for the treatment of blood cancers

Having generated meaningful data showing our product is well-tolerated and capable of reducing cancer burden in late-stage AML patients with no remaining treatment options, TCB aims to commence phase 2b-into pivotal (phase 3) clinical studies (TCB008-001) during the fourth quarter of 2021 in AML patients who have failed to respond adequately to induction therapy. The aim is to provide a form of salvage therapy which will either stabilize the patient, thereby preventing disease progression, or delay the requirement for human stem cell transplant. Initial trial centers will be UK-based followed by patient treatment in the EU/US later during 2022. The aim is to partner sales and marketing for the US market whilst retaining such rights for the UK/EU market. Product launch in the EU is anticipated to be in 2023.

Working on the premise that other blood cancers should respond to GD-Ts in a similar manner to AML, TCB is planning a phase 1b/2a 'umbrella' clinical study in other hematological malignancies to commence 2022. The trial will target three blood cancers, specifically multiple myeloma, chronic lymphoid leukemia and acute lymphoid leukemia.

Progress unmodified GD-T2s into Phase 1 clinical trials for the treatment of infectious disease

Gamma-delta T cells are dysfunctional in patients with COVID-19 and many other severe viral diseases. TCB plans to commence treatment of COVID-19 patients with the aim of preventing infected individuals being admitted into intensive care as the disease progresses. Our approach is complementary with vaccines currently being tested, as some individuals will not take the vaccine and some infected individuals will not respond to vaccination. Moreover, TCB's approach to COVID-19 is not 'strain-specific' and will target both the current virus and future mutated strains. Phase 1b/2a clinical studies are anticipated in the EU during 2021, with potential preliminary efficacy data available early 2022. TCB expects to co-develop the COVID-19 treatment with pharmaceutical companies for phase 2b/3 studies and market access.

Progress CAR-modified GD-Ts into Phase 1 clinical trials for treatment of solid CNS tumors (B7-H3)

TCB aims to treat patients with central nervous system (CNS) tumors such as neuroblastoma and glioblastoma using CAR-modified (tissue resident) gamma-delta1 T cells. Phase 1b/2a cancer studies are anticipated to commence 2022/3 and would be initially be conducted in the UK using frozen product manufactured in the EU. This phase 1b/2a study could include up to 20 patients and take up to two years to complete. We expect to submit a regulatory package to UK regulators (the MHRA) during 2022, and will not treat patients until approval is granted.

Progress GD-T1s into Phase 1 clinical trials for treatment of GI-tract cancers

TCB aims to treat a range of gut-related solid cancers using GD-T1 cells. Due to complexities of formulation and manufacture, clinical studies using the co-stim approach will commence in 2023 and would be conducted in the USA using frozen product manufactured in the EU. This Phase 1b/2a study could include up to 20 patients and could take up to two years to complete.

Grow our business operations to support the increasing number of clinical-phase products in development

We believe that our existing cell and gene manufacturing facility in the UK has the capacity to support our committed clinical development plans. We plan to continue to build upon this to support expansion of our product pipelines to new assets and to grow our clinical team. We also will work closely with vendors to embrace merging technologies in our manufacturing operations that are appropriate and optimized for our products to continually improve the quality and efficiency of our manufacturing systems. We believe that maintaining in-house control of these activities is critical to effective and efficient progression and we will continue to seek to build integrated business functions where possible.

Apply our discovery engine to target further diseases and add additional functionality to our products

As a platform technology, the co-stimulatory CAR-T GD-T cell system has a wealth of potential options to build added functionality into our cell-based platform. We plan to continue to innovate and partner in the field to augment our drug products and introduce next generation attributes. We also plan to continue to innovate our manufacturing and supply chains to efficiently scale our processes and simplify the interface with patients and healthcare professionals, whilst continually seeking to reduce manufacturing costs to improve patient access.

Expand our intellectual property portfolio and acquire additional technologies to augment our strong IP position

We intend to continue building on our technology platform, comprised of intellectual property, proprietary methods and know-how in the field of GD-T cells. These assets form the foundation for our ability, not only to strengthen our product pipeline, but also to successfully defend and expand our position as a leader in the field of GD-T based immuno-oncology.

Our Pipeline

What are gamma delta T cells?

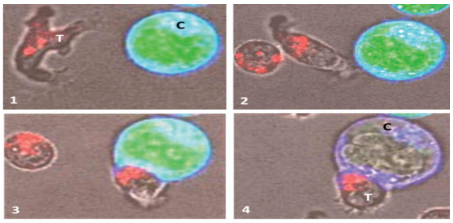
The immune system plays an important role in targeting and destroying cancer cells. One component has evolved to scan the body for diseased cells and eradicate them. In humans, GD-Ts arise as a number of different subtypes, defined by the sequence of the gamma and delta chains of the T-cell receptor (TCR) on the cell surface. The gammadelta2 (GD-T2) subtype typically is the most abundant of these cells in healthy humans, and its TCR- of anti-cancer immunity is GD-T cells – a type of white blood cell that express a variety of innate receptors, which mediated signaling has been fully characterized by researchers.

Virally-infected or cancer cells become stressed and accumulate cell surface phosphoantigens (IPP's) which are recognized by GD-T2 cells. Our proprietary technology platform includes the manufacturing of unmodified and genetically modified (CAR-T) GD-T cells as therapeutic candidates for use in clinical trials and commercialization. Almost all aspects of the value-chain from product manufacture, quality systems, clinical and regulatory are operated in-house by TC BioPharm. We believe this is one of our core competitive advantages, which we believe will contribute materially to our ability to overcome the challenging nature of developing new products.

Human lymphocytes comprise two groups of cells, B cells that generate antibodies for humoral immunity, and T cells that are responsible for cellular immune

responses. In healthy individuals, GD-T cells generally represent between 1% and 10% of peripheral blood T lymphocytes and present one of the first lines of defense against a wide range of bacterial and viral pathogens, as well as surveillance for cancerous cells. GD-T cells have the ability to regulate the initial immune response in several ways, including recruitment of other immune cells such as neutrophils, dendritic cells and macrophages through production of various chemokines (Kirby *et al*., 2007). Depletion of GD-T cells leads to impaired host defense to lung infections, for example (Moore *et al*., 2000; Lockhart *et al*., 2006). The predominant subset of GD-T cells in the blood is the GD-T2, which mediates a variety of immune responses by direct cytolysis of cancer cells and infected cells, development of memory phenotypes and modulation of other immune cells. The gammadelta1 (GD-T1) is a functionally distinct subset of GD-T cells and are a predominantly tissue resident population. GD-T1s are less well characterized, but their cytotoxic function also has been described in different liquid and solid tumors (Siegers & Lamb, 2014)

Both subsets of GD-T cells are thought to play a role in autoimmune disorders such as celiac disease, rheumatoid arthritis, autoimmune polyglandular syndrome and sarcoidosis where such lymphocytes are seen to accumulate in high numbers.



GD-T cell killing a cancer cell.

(1) A human GD-T (labelled 'T') identifies and scans (2) the surface of a cancer cell (labelled 'C'). On contact with the cancer cell (3) the GD-T releases perforin granules (stained red) into the cancer cell, rupturing its membrane (4) destroying the cancer cell (adapted from - Enc Life Sci, Jul-2007).

How can GD-Ts be used to treat disease?

Cellular immunotherapy is a form of treatment that harnesses the cells of the immune system to combat disease and is one of the most actively pursued areas of research by biotechnology and pharmaceutical companies today. Interest in immunotherapy is largely driven by recent compelling efficacy data in cancers and by the potential to achieve a cure or functional cure for some patients. While the field of immunotherapy in cancer, in general, has achieved proof of concept and yielded significant durable responses in multiple tumor types, there remain major tumor types such as colon, breast, and prostate cancers as well as patient groups within responsive tumors, that do not respond to current immunotherapy treatments. One theory to explain this non-responsiveness is that certain tumors require direct immune stimulation. T cell-based technologies seek to deliver activated T cells towards malignancies to initiate an immune response. The primary challenges in the field have been to couple an acceptable efficacy and safety profile to successfully target solid tumors.

Adoptive T cell transfer typically involves administration of autologous, allogeneic, or genetically-modified T cells (see footer below) into a recipient host with the specific goal of boosting or transferring enhanced immunologic functionality. One of the most advanced cell-based approaches - chimeric antigen receptor modified T cells (CAR-T) - has gained momentum. In a recent study, patients with refractory B cell acute lymphoblastic leukemia were treated with autologous genetically-modified T cells, with almost 90% of patients showing a marked improvement (Pan *et al.,* 2017*)*. Although the treatment is showing promise for specific tumor types, the safety profile remains a concern, as serious adverse events have previously been reported following CAR-T therapy (Grigor *et al.,* 2017). As a consequence of safety issues related to this approach, regulatory approval may be more complex for this genetically modified T cell therapy which effectively has two 'starting materials' - (i) the cellular component, and (ii) a lentiviral vector. The therapeutic premise is well-established - T cells are transduced with a viral vector encoding a chimeric antigen receptor capable of recognizing cancer-specific antigens, for example, CD19 which is commonly expressed on several tumors such as myeloma and B cell lymphomas. Following transduction, the T cells are genetically primed to recognize and kill specific tumor cells expressing the target antigen. The process involves extracting a patient's T cells (or growing an allogeneic T cell bank), transfecting the cells with a gene for a chimeric-antigen-receptor (CAR), and re-infusing transfected T cells into the patients. The use of cancer-specific cell therapies has gained momentum as several companies demonstrated that genetically modified CAR-T cells are efficacious when directed against blood tumors. These breakthrough findings have moved cell-based immunotherapy into the forefront of clinical oncology with two drugs now in the market.

T lymphocytes have long been known to play an important role in cancer suppression and modulation of tumor growth and numerous experimental studies have demonstrated the anti-cancer potential of GD-T lymphocytes. Indeed, GD-T cells can recognize a number of specific tumor-associated molecules including non-peptidic antigens (IPP's - isopentenyl pyrophosphate) and immune surveillance stress signals (such as HSP60/70, MICA, MICB, and ULBP) present on the surface of transformed cells. The GD-T cell overexpresses IL-2 receptors and this cytokine is necessary to activate them (Kjeldsen-Kragh, 1993). On recognizing a tumor cell, GD-T cells exert their anti-cancer properties *via* release of both perforin and of granzyme, a serine protease which enters the target cell to trigger cell death (apoptosis). Our research efforts are focused entirely on targeting tumors in ways that may result in an improved therapeutic index and that have potential applications in solid tumors as well as hematological malignancies. In contrast to conventional AB CAR-T cells, our GD-T cell technology provides greater specificity in targeting tumors through recognition of IPP-expressing cells, whilst avoiding on-target, off-tumor effects on healthy tissue lacking in IPPs.

Liquid cancers

For cell therapies to be effective several parameters need to be addressed. These include (i) viability, (ii) homing to the tumor, (iii) persistence at the tumor, and (iv) target-specificity.

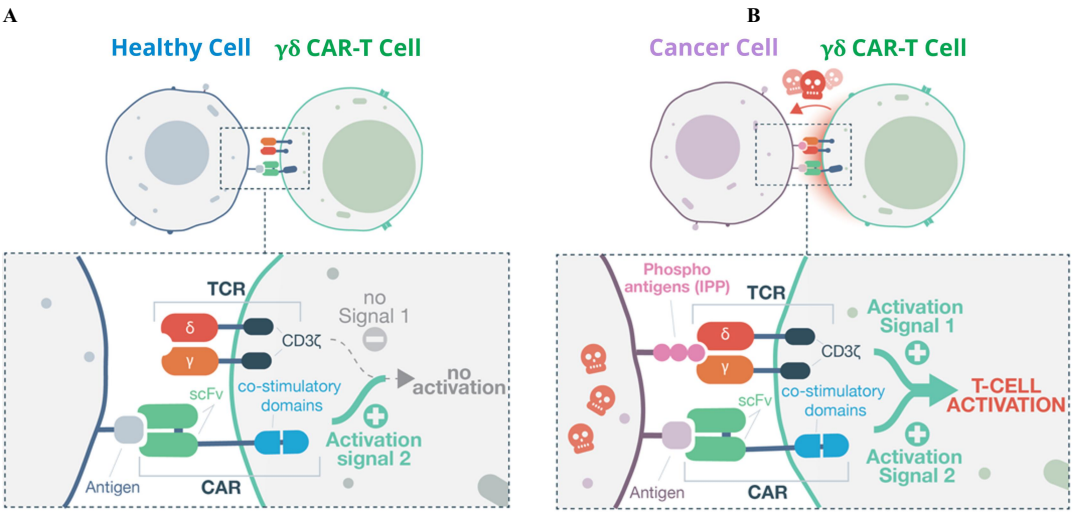
Use of unmodified GD-Ts to treat blood cancers addresses all the above factors. We believe that (i) we have demonstrated therapeutic cells remain viable when injected into the bloodstream of cancer patients; (ii) our research shows GD-Ts injected into the bloodstream remain in-situ; and (iii) they persist for up to 100 days after administration. Moreover, we believe we have demonstrated that certain late-stage blood cancer patients treated with multiple GD-T doses have shown significantly positive responses (see section xx). These findings lead TCB to believe that all patients with similar blood cancers may respond to GD-T cell therapy in a positive manner.

Solid cancers

We believe that it may be necessary to use CAR-T technology (i) to maximize therapeutic cell homing into the solid tumor site, and (ii) to increase GD-T cell persistence by 'tethering' the cell to antigens present on the cancer cell surface.

In order to overcome toxicities seen with conventional CAR-T approaches, we believe that we have developed a 'co-stimulatory' GD-T CAR which will only attack and kill cancerous cells whilst leaving healthy cells unharmed. This is important as many of the current conventional CAR-T therapies cannot distinguish target antigens expressed on healthy cells from those on cancerous cells, which results in various pathologies, including cytokine release syndrome, that in some cases had led to patient death. Such targeting of health cells with conventional CAR-T makes their use in solid cancers difficult, as too much healthy tissue is likely to be destroyed as 'collateral' damage in the treatment process.

The diagram below illustrates how TCB's approach works, using the innate receptors on the GD-T cell surface to act as a 'safety switch' - such receptors are generally not triggered by healthy cells, only by disease markers (IPP's) on the surface of cancerous or virally infected cells.



Co-stimulatory CAR-T: A) No GD-T cell activation in healthy cell. B) GD-T activation and cell-killing in cancer cell.

Autologous cells are derived from 'self', using patients own cells to treat their specific disease

Allogeneic cells are derived from donor material, giving rise to cell banks able to treat numerous patients

Genetically-modified cells are typically engineered with a 'chimeric' receptor to target specific cancer antigens

Commercialization of conventional CAR-T cell therapy has taken decades of high-quality research in academia and industry, and it has provided transformational results for a number of patients with B cell malignancies. However, as noted, there are numerous barriers to widespread adoption, including:

- Severe Toxicities. The significant risk of severe toxicities, especially cytokine release syndrome (CRS) and neurotoxicity occurring up to 3 weeks from treatment. These toxicities have resulted in the need for implementing specific clinical pathways to certify staff and facilities in the administration of the drugs and the management of the toxicities.

- On-target, off tumor toxicities. Conventional CAR-T products have no mechanism for discriminating between diseased and healthy cells. Activation is governed solely by the expression of the target antigen, which can lead to toxicity when the target antigen is expressed on healthy cells. In marketed products targeting CD19 (present in the vast majority of B cells), this can be tolerated as B-cell aplasia, albeit with the need for regular long-term immunoglobulin replacement therapy. However, in experimental CAR-T products targeting other antigens this has been shown to cause serious side-effects, up to and including fatality.

- Complex supply chains associated with autologous treatments. By definition, autologous treatments require the source cells to have been collected from the patient. It therefore requires a personalized supply chain with multiple touch points and the manufacturing process can only ever be performed on a single-patient batch size. This adds complexity to each treatment and has required the introduction of completely new processes and infrastructure in able to commercialize the products.

- Inherent variability of the drug product. Each patient has a different cell population and so the starting material of each manufacturing batch is always variable, leading to variable final product. This can be minimized during pre-screening, which eliminates some patients from treatment, but there are still significant challenges in manufacturing to provide consistent batches of drug products and in understanding which variables are critical to product quality.

- High list price of the products. The need for personalized manufacturing, new supply chain processes and management of acute and chronic toxicities have all contributed to the high prices associated with the first CAR-T products reaching the market. In the USA, Kymriah® has a list price of $475,000 for pediatric ALL, and Yescarta® lists at $373,000 for DLBCL patients. The associated treatment costs and ongoing management can increase this price significantly.

The combination of the co-stimulatory CAR, with GD-T cells, provides TCB with a proprietary platform which we believe addresses the problems with existing CAR-T products in the following ways:

- Using the natural T cell signaling of the GD-T cell will, we believe, result in less risk of hyperactivation and tonic signaling with an overall reduction in the risk of CRS and less exhaustion of the cells.

- The requirement on cell activation remains on the endogenous GD-T cell TCR signal, which detects stress signals associated with cancerous cells, so healthy cells are not targeted for destruction even if the target antigen is expressed and the CAR binds, thus off-tumor toxicity is avoided.

- Manufacturing in batches of high dose numbers, without the complex patient collection of personalized supply chain steps, we believe will result in a dramatic reduction in cost of goods. This will be reflected in a list price which is in line with current biologicals. With the reduced likelihood of associated toxicities, the treatment and management costs should also be significantly lower, and the products can be made available to many more patients as a result.

- The combination of a well-tolerated product and simplified supply chain (by virtue of our proprietary CryoTC freeze-thaw process), we believe, will make the therapy suitable for administration in local oncology centers without patients having to locate in centralized specialist centers of excellence, further reducing financial and logistic barriers to treatment.

- The tolerance of "off tumor" antigen binding without associated toxicity allows for a complete change in the current target identification paradigm. Instead of identifying targets that are exclusively expressed on tumor cells, we believe our co-stimulatory CAR-T approach confers an advantage to select targets that can be highly expressed on tumors and at low levels on healthy tissue. We select targets based on their relative therapeutic index increase in expression, their homogeneity in tumors and the antigen density. This allows us to target significantly more tumor associated antigens and to significantly expand the therapeutic index into higher doses or repeat administration.

- GD-T cells have multiple roles in humans, possessing both innate and adaptive functions. One role is a sentinel surveillance cell, and they are biologically primed to travel through tissue searching for sites of cellular stress. This ability to penetrate tissue makes them advantageous agents for treating solid tumors. We can add additional function to the GD-T cells by using one or more co-stimulatory CAR-T constructs to add targeting to appropriate antigen(s) and to provide armor or strategies to overcome environmental and immune suppression in the tumor microenvironment. Therefore, we believe that the platform offers a promising approach to target the full spectrum of cancer diseases.

Viral infections

GD-Ts are natural killers of virally infected cells, as well as cancerous cells. We believe that our unmodified GD-T therapy offers substantial potential as a first line of attack against future viral pandemics and can play an important ongoing role in managing COVID-19. During the COVID-19 pandemic, we took the opportunity to develop a trial protocol to treat patients with COVID-19, which was approved by the MHRA and we anticipate conducting a phase 1b/2a trial in H2 2021. TCB plans to commence treatment of COVID-19 patients at an early stage with the aim of boosting their levels of GD-Ts, which are often dysfunctional in patients with severe viral infections, and thus preventing the disease from progressing. This approach is complementary with vaccines, as some individuals will not take the vaccine and others may not respond to vaccination. One unique difference over use of vaccines is that GD-T therapy will not distinguish between viral variants providing a robust treatment irrespective of mutation.

Autologous versus allogeneic

Commercially-available cell therapies typically are either autologous or allogeneic. Autologous products are taken from one donor (the patient) and used to treat that same donor (self-to-self), whilst allogeneic products are usually taken from a single donor (not a patient) and used as the starting material to treat a large number of different individuals (patients). GD-T lymphocytes are known to exert their biological effect in a non-MHC restricted manner. This means the potential for graft-versus-host mediated rejection is significantly reduced if allogeneic (non-self) cells are used as a treatment compared with many other immune cell therapies. As many patients with late-stage cancer or severe viral infections are also immunosuppressed, potential for host-mediated rejection of allogeneic cells is also reduced. When compared with autologous variants, commercial benefits of allogenic treatment include the following:

- significant reduction in cost of goods;

- product can be campaign manufactured and stockpiled frozen;

- increased capacity to treat more patients;

- logistics of shipping product are simplified;

- higher doses of (reproducible) product are possible; and

- product is immediately available for acute disorders

Our strategy for developing an allogeneic solution for CAR-T is to select a pathway which will allow us to bring our products to patients as quickly as possible. These concepts build upon decades of previous development in allogeneic cell therapies and have clear understanding of development requirements in terms of manufacturing, clinical and regulatory execution.

Although manufacture of allogeneic cell therapies allows product to be 'pharmaceuticalized' by virtue of campaign manufacture and storage, the approach is however not without technical and logistic challenges. To manufacture allogeneic banks, donor cells need to be screened for numerous adventitious agents, including for example, HIV, hepatitis, CMV and syphilis. Additional tumorogenicity testing is required, and assays conducted to ensure the cell bank is free from karyotypic aberrations. In order to overcome any potential for rejection, TCB has developed allogeneic GD-T cell banks that are unlikely to elicit a graft-versus-host (GvH) or host-versus-graft (HvG) immune response.

Donors are screened and selected based on clinically-relevant history and then based on the proliferative capacity and phenotypic character of their GD-Ts, based on a small volume blood draw and in-house assays. In this way, only good quality GD-T cells are selected for repeat apheresis and banking. The banks are HLA-typed and become the starting material for all of the allogeneic CAR-T products. These banks are cryopreserved in our facilities and can later be thawed, genetically engineered with the CAR, activated and expanded into final product, before being frozen again as multiple individual doses of drug product.

Generation of Gamma Delta T cells from IPSC cells

Identification of appropriate donors whilst possible is challenging as only a limited number of batches can be created from a single donation. GD-T cells can be routinely expanded from peripheral over 14 days period time. This provides a short window of opportunity for cell modification/engineering.

Induced pluripotent stem cells (iPSCs) have the potential to overcome these issues because they are capable of unlimited proliferation and multidirectional differentiation. In 2013, several research groups from Japan reported the successful reprogramming of αβT-cells, followed by re-differentiation back to αβT cells (Vizcardo *et al.,* 2013; Nishimura *et al.,* 2013; Themeli *et al.,* 2013). While re-differentiated αβT cells-maintained antigen specificity, they were also characterized by higher proliferation ability than an original T-cell clone.

We hypothesized that GD-T derived iPSCs cells that carry the rearrangements at the TCRG and TCRD gene locus will be able to generate GD-T but not αβT cells. Furthermore, iPSC cells will provide a vast opportunity for the gene-editing without any time constraints of terminally differentiated cells.

Reprogramming GD-T cells has proven to be a challenge, as these cells are not tolerant of cell sorting. Therefore, GD-T cells can be reprogrammed in a bulk culture with the rest of peripheral blood cells or at the end of 14 days expansion, when the purity of GD-T is highest. After several unsuccessful reprogramming attempts, we have optimized the conditions favoring GD-T cells reprogramming. In the last round of reprogramming >50 clones have been created. After extensive analysis of DNA rearrangements in δ- and γ-locus of 5 pre-selected clones, it was confirmed that they are derived from GD-T cells with different TCR sequences.

IPSC technology is an attractive approach for the limitless source of GD-T cells are successful progress in reprogramming has been demonstrated. Further work is now required for the establishment of a GMP compatible T-cell differentiation protocol. Generation of DT cells from iPSC cells presents TCB with a vast opportunity for scaling without any time constraints of terminally differentiated cells.

Fresh versus frozen product

Commercial and clinical development of cellular therapy products will invariably require cryopreservation and frozen storage of cellular starting materials, intermediates and/or final product.

Optimizing cryopreservation is as important to obtaining maximum yield and a consistent end-product. Suboptimal cryopreservation can lead not only to batch-to-batch variation, lowered cellular functionality and reduced cell yield, but also to the potential selection of subpopulations with genetic or epigenetic characteristics divergent from the original cell line.

Regulatory requirements also impact on cryopreservation, requiring a robust and reproducible approach to freezing, storage and thawing of the product. This requires attention to all aspects of the application of low temperatures; from the choice of freezing container and cryoprotectant, the cooling rate employed and its mode of delivery, correct handling of the frozen material during storage and transportation, to eventual thawing of the product by the end-user. Each of these elements influences all of the others to a greater or lesser extent and have been taken into consideration as TCB moves from fresh to cryopreserved cell-based product.

In a recent submission to UK regulators, we provided batch manufacture and supporting data, and TCB was granted approval to commence treatment of cancer patients using frozen allogeneic product. This represents a significant milestone for TCB, as we pioneer use of cryopreserved-donated cells to treat cancer and COVID-19 patients. Obvious benefits include increased product reproducibility, ability to ship product globally on request and significant economy of scale (through batch manufacture and storage).

Clinical studies – unmodified GD-Ts in blood cancer

Management of acute myeloid leukemia (AML) is based on intensive chemotherapy and/or stem cell transplant, but these therapies lead to high relapse rates amongst treated patients. Particularly for the relapsed/refractory AML population or those who are not eligible for alloHSCT or intensive chemotherapy, the therapy options are limited, and patients are often placed in experimental protocol therapies or palliative care. As a result, there is a need for additional therapies, particularly for these cohorts.

GD-T cells have emerged as a promising therapy due to the ability to specifically target cancer cells. Nonclinical studies performed in AML cell lines suggest that GD-T cells specifically target AML tumor cells and lead to cell lysis in vitro (Kirk *et al.,* 1993). Additionally, in xenotransplantation animal models, GD-T cells obtained from healthy volunteers specifically target AML cells and result in increased survival and diminished tumor burden in NOD mice (Gertner-Dardenne *et al.*, 2012). Similarly, in vitro experiments conducted by TCB further support such findings whilst providing evidence that TCB002 specifically targets stress induced cells and effectively kills AML cells lines.

In the clinic, allogeneic treatment in AML patients in the phase 1b/2a trial TCB002 has shown our product is well-tolerated and capable of reducing cancer burden. Firstly, there were no signs of graft vs. host disease (GvHD) following therapy and secondly, CR (complete response) and CRi (complete response with incomplete hematologic recovery) were observed. Earlier results with autologous product demonstrated good tolerability. For the allogeneic product, TCB002, additional procedures were included to prevent GvHD (e.g. AB T cell depletion). Literature reports were also supportive of the use of TCB002 in cancer patients. The phase 1b/2a trial tested TCB002 in active relapsed or refractory AML who were not eligible for or did not consent to high dose salvage chemotherapy and/or allogeneic hematopoietic stem cell transplantation (alloHSCT). The trial was conducted to identify a tolerable dose and better understand the safety and efficacy of this therapy in the chosen indication. The primary, secondary and exploratory endpoints were as follows:

Primary endpoints:

- Assessment of adverse events (AEs) graded by Common Terminology Criteria for Adverse Events (CTCAE) v5.0, vital signs and evaluation of laboratory parameters
- Incidence of dose-limiting toxicities (DLTs) during the first 28 days after γδ T cell administration.
- Establish Maximum Tolerated Dose (MTD) of OmnImmune®

Secondary endpoints:

- Complete Remission (CR) rate
- Overall survival (OS)
- Quality of life determined by EORTC QLQ-C30 questionnaire

Exploratory endpoints:

- Changes in γδ T cell count and phenotype before and after OmnImmune® infusion

No formal statistical analysis was planned. The incidence of DLTs were to be summarised descriptively by γδ T cells dose for evaluable patients. The recommended dose would be determined as the greatest with an incidence of DLTs no greater than 1/3. All other data including efficacy results were summarized descriptively by γδ T cells dose.

The trial enrolled 8 patients and healthy donors aged >18 years.

Clinical outcome

Seven patients were treated with TCB002. No safety concerns were raised during Safety Review Committee (SRC) meetings. No treatment related Serious Adverse Reactions (SARs) were reported in any of the patients who were enrolled in the trial. No grade 3≥ TCB002 treatment related toxicities were noted in any of the treated patients. No emergency safety measures have occurred for any subjects receiving TCB002. No important potential or identified risks were identified during the trial. The single dose of $1x10^8$ cells was declared as the maximum tolerated dose (MTD). Three patients at 28 days post-treatment achieved a CR (one patient) or CRi (two patients). Two additional patients exhibited reduction in blast levels at 14 days-see table below. These promising early indications of efficacy were not expected given the refractory profile of the enrolled patients.

	PRA1-5002	PRA1-5006	PRA1-5007*	PRA1-5008	PRA1-5009
Initial Dose	$1x10^6$ cells/kg (total dose 6.1 x 10^7)	$1x10^6$ cells/kg (total dose 7.0 x 10^7)	$1x10^7$ cells/kg (total dose 7 x 10^8)	$1x10^7$ cells/kg (total dose 6.5 x 10^8)	$1x10^7$ cells/kg (total dose 8.5 x 10^8)
Preliminary Data	**Blast cell reduction:**	**Blast cell reduction:**	**Blast cell reduction:**	**Blast cell reduction:**	**Blast cell reduction:**
	62.5% on treatment	51% on treatment	9% on treatment	28% on treatment**	66% on treatment
	28% 14 days post-treat	8% 14 days post-treat	4.5% 14 days post-treat	7% 14 days post-treat**	38% 14 days post-treat
	10% on D28 (COMPLETE RESPONSE)* **	**2.6% on D28 (COMPLETE RESPONSE)*** **	**3.6% on D28 (COMPLETE RESPONSE)**	**MET 1º ENDPOINT (WITHDRAWN SEPSIS)**	**Study on hold (COVID-19)**

* PRA1-5007 was 4th line of treatment, relapsed refractory with low-blast count AML (LBC-AML).
Counts shown in bone marrow - peripheral blood blast count was 2.5% on treatment, 0% at day 14 and D28.
Patient PRA1-5007 achieved complete remission by D28.
** Peripheral blood (not bone marrow).
*** CRi, bone marrow response

NOTE: Patients PRA1-5001; 3; 4 and 5 did not survive to day 28 post-treatment due to disease severity or co-morbidities; none of these patients exhibited any treatment-related adverse events. As the trial was conducted in Prague each patient's unique identifier included the prefix 'PRA1'.

FDA Orphan Drug Designation

About 60 million people living in the European Union (EU) and USA suffer from a rare disease. The European Medicines Agency (EMA) and FDA play a central role in facilitating the development and authorization of medicines for rare diseases, which are termed 'orphan medicines' in the medical world. Developing medicines intended for small numbers of patients has little commercial incentive under normal market conditions. Therefore, the EU and USA offer a range of incentives to encourage the development of designated orphan medicines.

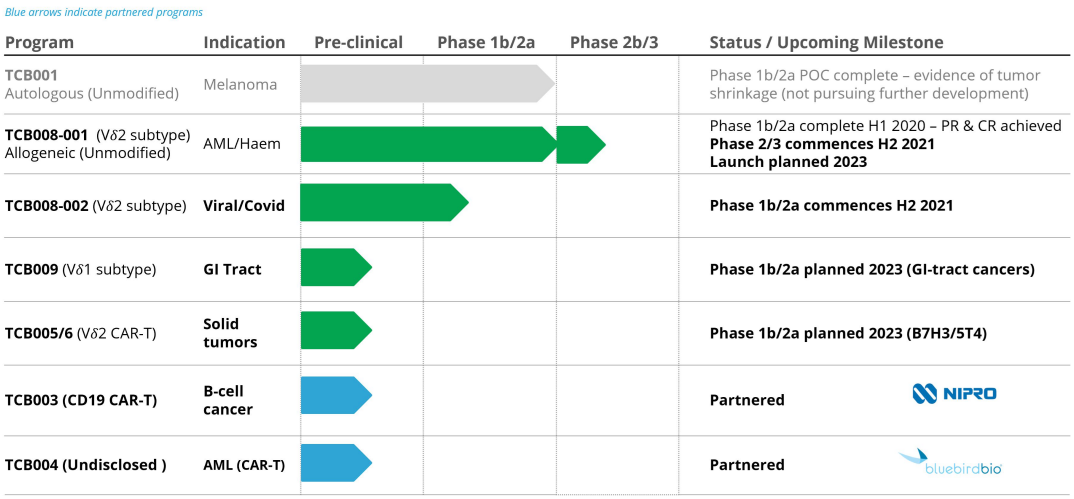
The general therapeutic strategy for the treatment of AML has not changed substantially over the past 30 years. Excluding APL (which should be treated with all trans-retinoic acid), AML management is based primarily on induction, incorporating an anthracycline and cytarabine, and consolidation therapy, and/or allogeneic Hematopoietic Stem Cell Transplantation (alloHSCT). Induction/consolidation therapy leads to high CRs rates in those who are eligible for treatment and present a favorable risk profile.

Several novel agents are in various stages of development for the treatment of AML. Novel approaches include antibody-based immunotherapy and adoptive cell therapy that aim to improve anti-leukemia T cell function, such as the therapies developed by TCB (TCB002 and TCB008-001).

TCB002 was initially studied in patients with active relapsed or refractory AML who are not eligible or do not consent to high dose salvage chemotherapy and/or alloHSCT. In July 2019, TCB002 was granted 'orphan medicine' status from the FDA for Acute Myeloid Leukemia (AML). TCB intends to conduct a further clinical phase 2/3 study (TCB008-001) in 2021/2 aimed at treating earlier stage AML patients.

Pipeline and plan

Our future pipeline is focused on treating liquid cancers with our unmodified GD-T therapies and the treatment of solid cancers with next-generation allogeneic GD-T CAR-T therapies. The following table summarizes our current product pipeline:



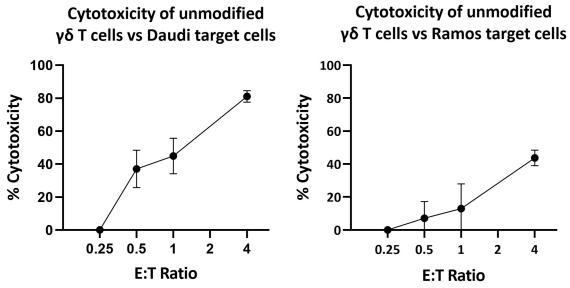
Note: Programs indicated by grey or blue bars do not involve any current development or clinical activity by the Company.

Our unmodified cell therapy, used in the treatment of Acute Myeloid Leukemia (Program TCB008-001), is supplied under the name OmnImmune; and our unmodified cell therapy, used to treat COVID-19, is supplied under the name ImmuniStim.

TCB008-001 is an allogeneic unmodified GD-T (Vd2) cell product. Donor-derived GD-T cells for proliferative capacity, were activated and expanded in our manufacturing facility before being infused into the patient as part of our TCB002 phase 1 trial. This trial was completed in H1 2020 at the Institute of Hematology and Blood Transfusion in Prague, Czech Republic. The product will continue being developed as the frozen variant, TCB008-001, towards phase 2/3 follow-up clinical trials and commercialization.

TCB008-002: We have recently been granted MHRA approval for a phase 1b/2a clinical trial of our allogeneic unmodified GD-T (Vd2) cell product to target COVID-19. We expect to treat our first patient during H2 2021. Numerous peer-reviewed publications have demonstrated that GD-T cells innate killers of cells which have become virally infected. Using Epstein-Barr virus infected cells as an exemplar, TCB has conducted pre-clinical studies to demonstrate that our GMP-compliant manufacturing process results in GD-T with potent anti-viral cytotoxicity – this is shown in below:

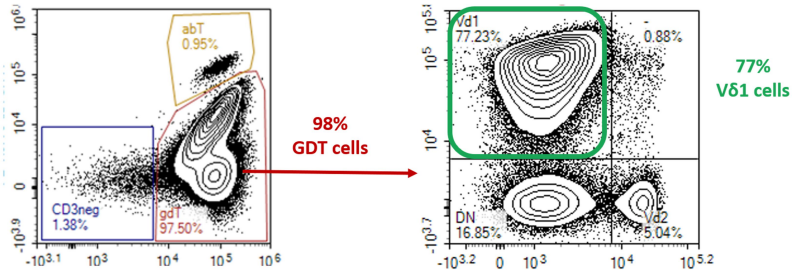
- Ramos (EBV-) and Daudi (EBV+) target cells labelled with PKH
- Expanded, Vγ9Vδ2 T cells added at different effector:target ratios
- Cytotoxicity against $PKH^{+}V\gamma9^{-}$ cells quantified at 48hrs
- GD-T's show low cytotoxicity against Ramos cells (EBV-); greater killing of Daudi cells (EBV+)



This table illustrates two B-cell lymphoma lines, one infected with Epstein Barr virus (Daudi) and another line which is virus free (Ramos). When each of the lymphocyte lines are incubated with TCB's GD-T cells, killing (cytotoxicity) is demonstrably increased in virally infected cells (Daudi) compared with the non-infected control. The above pre-clinical results, combined with clinical data from cancer patients facilitated UK regulatory approval to commence phase 1b/2a clinical studies on covid-positive patients. The trial will aim to prevent covid-infected individuals progressing to intensive care. We expect to treat first patients in the UK during Q4, 2021.

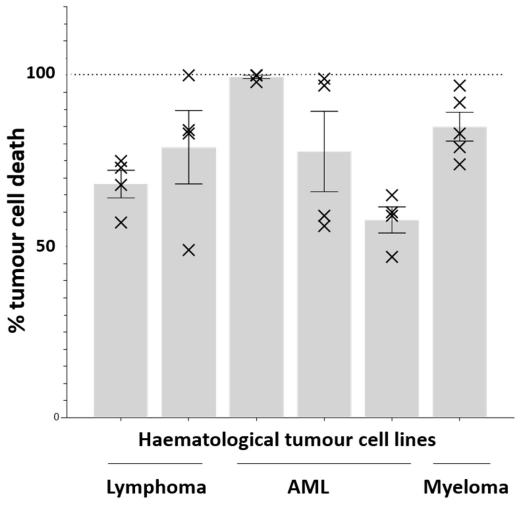
TCB009: In addition to developing Vd2-based cell therapies, we are also evaluating the Vd1 GD-T subtype as a possible treatment (initially for GI-tract cancer). The Vd1 subtype is present in high numbers throughout the gut, potentially having unique therapeutic potential within such tissues. Our preclinical studies have shown that we can reproducibly manufacture high-purity (typically 75-80%) Vd1 cells (below).

High-purity Vδ1 populations can reproducibly be produced:



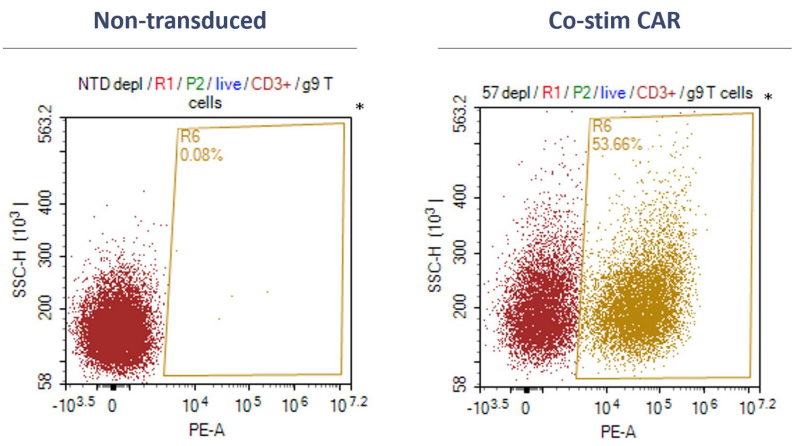
Taking these high-purity Vd1 cells we were able to demonstrate potent cell killing in different human cancer lines (see below – cells derived from different patients with either lymphoma, acute myeloid leukemia or multiple myeloma, data taken from 7 day incubation at 2:1 effector target ratio).

Expanded Vδ1 cells kill a range of haematological tumour cell lines *in-vitro*
(X represents expansion from single donor)



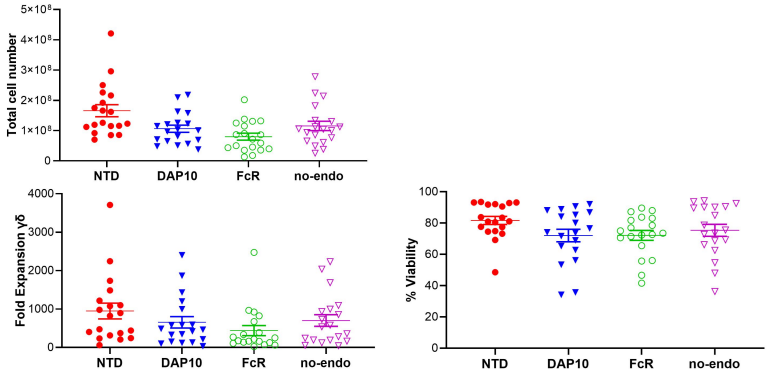
We are currently scaling-up manufacture of the Vd1 subtype to GMP-compliance, and anticipate UK regulatory submission for a phase 1b/2a clinical study during 2023.

TCB005/TCB006: These allogeneic co-stimulatory GD-T CAR pre-clinical drug candidates will target antigens expressed on a number of solid tumor types. We plan to progress initial clinical studies in 2023 targeting antigen-positive solid tumors. Our lead CAR candidates are B7-H3 and 5T4 which provisionally would be targeted against CNS cancers (such as neuroblastoma) and ovarian cancer respectively. TCB has generated *in-vitro* preclinical data as part of our CAR-T program which demonstrated that GD-Ts can be CAR-transduced with high efficiency (below).



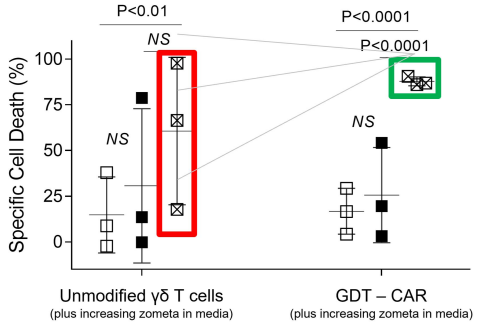
CAR Expression	0%	54%
γδ T Cell Purity	99%	99%

We have also demonstrated that following transduction with a CAR construct, GD-T's can be expanded *in-vitro* in an effective manner whilst exhibiting increase cytotoxicity in a zoledronate-dependent manner (see diagrams below - zoldronate-dependency reflects TCB's proprietary process for commercial expansion of GD-T's). TCB has engaged with UK regulators to discuss design of GD-T CAR phase1b/2a clinical studies (specifically relating to patient dosing and quality systems), we expect make a UK regulatory submission for a phase 1b/2a clinical study during 2023.



PBMCs from multiple donors were initiated into culture and γδ T cells expansion stimulated by zoledronic acid. On day 2 of expansion, cells were transduced with LVV to deliver the indicated CAR constructs. After routine feeding through the expansion process, cells were harvested on day 14 and the number, purity and viability of γδ T cells evaluated. Data present a compilation of experiments across multiple individual donors (N=9; n=1-5)

- GD-T cells taken from 3 donors
- High-dose zometa + CAR significantly increased target cell killing and reproducibility between donors



Manufacturing

Unlike many pre-clinical and early clinical stage biotech companies that rely on outsourcing key manufacturing and development functions with consequent complex and expensive supply chains and delays in delivery and execution, we have built a world-class fully integrated GMP grade specialist GD-T manufacturing center in Glasgow, Scotland. This facility undertakes all key functions associated with our GD-T cell development, testing, quality assurance, product manufacture, clinical trial recruitment, management design, support and interaction with regulators. This has resulted in rapid, focused development; highly efficient cost control;, controlled supply chain; speed of development and clinical delivery. We employ over 80 highly qualified people at our facility. The inspiration to create a fully integrated facility came from our founders' vision and considerable experience in cell therapy.

All advanced therapy medicinal products in the UK must be manufactured by law under a manufacturer's license granted by the MHRA TCB received its Manufacturer's Authorisation for Investigational Medicinal Products MIA (IMP) from the MHRA in January 2015 (license number MIA (IMP) 42803). In April 2016, the MHRA granted the 'Specials' license to TCB as well as approving the facility for ongoing GMP compliance, which permits the manufacture and release of Advanced Therapy Medicinal Products (ATMPs) for use in clinical trials.

The backbone of our company is TCB's Quality Management System, which TCB based on the principles of the current GMP as described in the 'Rules and Guidance for Pharmaceutical Manufacturers and Distributors' and EudraLex Volume 4 as revised. This is achieved by the application of a Quality Management System based around the requirements of ICH Q10 and the EU GMP Guide, which address factors affecting the desired quality, namely the personnel, facilities, equipment, materials, processes, procedures training, vendor selection and approval, User Requirement Specification (URS) qualification and validation of assays and systems and the record keeping. All personnel joining TCB undergo rigorous training on everything from GMP through to formalized systems for measuring and evaluating risk.

TCB's manufacturing facilities are equipped with two Class B clean rooms with space secured for future expansion for production of our products as it progresses from phase I to phase III clinical trials. The facility is also equipped with Development and Quality control testing laboratories together and ample stores for goods inwards and product release plus storage for intermediate and final product. Equipment is controlled and monitored through a Management Information System with 24/7 monitoring. All laboratory equipment undergoes a formal URS and once installed undergoes full qualification prior to it being put into routine use.

TCB's Quality Control team are responsible for the majority of release testing for our products. The Quality Control departments (analytical and microbiology) are responsible for product characterization using bespoke phenotyping and potency assays, safety testing assays and final release of the product to the clinic. In-house testing within TCB's Quality Control laboratories eliminates the necessity for third party involvement, resulting in reduced costs and gaining full control of scheduling. The Quality Control departments remit also extends to the microbiological monitoring of the facility to measure, assess and control the exceptionally high levels of sterility required within the aseptic manufacturing suites. Extensively equipped Quality Control microbial laboratories allow environmental monitoring of the manufacturing cleanrooms to GMP standards. The laboratories house incubators, biological safety cabinets, centrifuges, fridges, freezers, air and particle monitors.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our scientific knowledge, technology and development experience provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions. Any GD-T cell therapeutic candidates that we successfully develop and commercialize will compete with existing products and new products that may become available in the future. We believe our advanced clinical products in allogeneic and unmodified GD-Ts provide us a first mover advantage in oncology and viral indications. Our continued efforts in advancing our modified platform technologies, along with our efforts in banked GD-Ts, are in direct competition with a number of public and private companies in the cell therapy space.

Several direct competitors have recently emerged in the GD-T cell space developing cell-based, gene therapy based and bi-specific antibody-based products; a testament to the therapeutic potential of GD-T cells being acknowledged by scientists, clinicians and investors. These companies include Adicet Bio Inc., Sana Biotechnology, American Gene Technologies International Inc., Cytomed Therapeutics Pte Limited, Gadeta B.V., GammaDelta Therapeutics Limited, ImCheck Therapeutics, Immatics Biotechnlogies GmbH, IN8Bio Inc, Lava Therapeutics B.V., PhosphoGam Inc., Lyell Therapeutics, and Sorrento Therapeutics. All of these companies have product candidates at the preclinical stage with the exception of American Gene Technologies International Inc., ImCheck Therapeutics and Immatics. Other technologies may emerge which, while further away from market, may impact on market share of TCB's products during their lifecycle. This includes indirect competitors to GD-T cells such as the development of other cell-based approaches and non-cell based approaches modulating natural killer cells and other immune cells.

Commercial leaders in the CAR-T space are Novartis AG (Basel, Switzerland) and Gilead (Foster City, CA). Both of these companies market autologous CD19-targeted AB CAR-T products. Bristol Myers Squibb (New York, NY) is looking to gain approval for its CD19-directed CAR-T before the end of 2020. Via third party collaborations, all three of the commercial leaders in autologous CAR-T, have accessed gene editing technology with a view to creating allogeneic products. Novartis have partnered with Intellia (Cambridge, MA), Gilead have an agreement with Sangamo Therapeutics (Richmond, CA) and Bristol Myers Squibb have an agreement with Editas Medicine (Cambridge, MA). Richard Gregson will update to include 'top-5 GD-T companies).

We do not believe that any of these competitors will offer the same commercial proposition as our GD-T cell therapeutic candidates due to our:

- Ownership of foundation IP of the co-stimulatory CAR technology within GD-Ts.
- First-mover advantage in the field of modified GD-Ts as therapeutics.
- Ability to GMP manufacture large numbers of modified GD-T cells to a high purity in a cost-effective manner.
- Established banks of allogeneic products which may be used in future (following appropriate regulatory approvals) to treat both cancer and severe viral disease.
- The potential to create CAR-T therapies with significantly improved safety profile, suitable for widespread market adoption.
- Experience of, and in-house management of, our clinical trial programs
- Pipeline development strategy and screening tools to develop a deep pipeline of platform products for a range of diseases.

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.

Our Strengths

Our clinical trials have provided very strong evidence of drug-toleration and preliminary evidence of clinical benefit.

Our clinical trial of TCB001 involved treatment of patients with autologous unmodified GD-Ts. In a phase 1b/2a dose-ranging safety study (maximum total dose $30x10^9$ cells) we saw no evidence of drug-related severe adverse events. A total of eight patients were treated with escalating doses of TCB001, and no treatment-related toxicities were reported during the full six-week therapeutic course. Data from TCB002 suggests an excellent tolerability, with no observed Host versus Graft Disease (HvGD) and preliminary indication of clinical benefit. TCB002 has been granted Orphan Drug Designation by the FDA.

Our CAR-T platform is centered on development of safer and more widely applicable therapeutic candidates and associated process and manufacturing capabilities.

Our proprietary co-stimulatory CAR-T technology platform covers identification of target cancer antigens, successful design and engineering of target sequences, preclinical safety testing and optimized manufacturing processes suitable for producing therapeutic candidates for use in clinical trials and commercialization. We believe the platform will enable development of additional GD-T cell therapeutic candidates targeting cancers that have previously been difficult to treat. We believe the products will be demonstrably safer than the current generation of AB T cell CAR-T products because they will not attack healthy non-cancerous cells and augment the natural biological process rather than bypassing it.

We have identified a large and growing pool of cancer targets for which we can develop additional therapeutic candidates.

We have identified over 20 antigens that are preferentially expressed in cancer cells and have established ongoing research programs to develop several of these into our GD-T platform. Within the terms of our agreement, bluebird bio, we have first right of refusal on a further three oncology targets. Each antigentarget presents an opportunity to target many cancer types and therefore presents multiple potential represents a development, collaboration and/or an out-licensing opportunity as each target could be used to target specific cancer types. Growing the pipeline of products built on our co-stimulatory CAR-T and reaching patients is our priority.

We have historically entered collaborative arrangements with partners (bluebird bio, Inc. (USA) and Nipro Corporation (Japan), which involve funded or partly funded preclinical collaboration. It is uncertain at this time whether TCB will receive any significant revenues from these collaborations.

We retain control of key business elements, such as product manufacture and clinical research.

Whilst many companies contract out product manufacture, quality systems and clinical trial management, we have elected to build these skills in-house. TC BioPharm has a GMP (Good Manufacturing Practice) cleanroom facility where our products are manufactured. We also retain all the quality support systems such as product testing and release of final product to the clinic. Keeping these systems in-house allows the Company to control all aspects of the manufacturing process whilst significantly reducing costs of goods (CoGs). Further saving on costs are accrued by in-house manufacture, as contract manufacturing organizations (CMOs) will typically charge several times more than the actual costs to maintain their profit margins. Rather than fully outsource our clinical trial management, data management and pharmacovigilance, we maintain an inhouse clinical team that partners with a contract clinical research organization (CRO) for data management and pharmacovigilance services. The inhouse clinical team conducts and manages our own clinical trials in-house. In addition to significant cost savings, this allows us to build a strong working relationship with physicians who are treating the cancer patients; we believe this is key to successful product development as the physicians participating in our clinical studies will also be our future customers. We believe that retaining control of key elements of our business such as GMP manufacture and clinical operations, has allowed TC BioPharm to move quickly and efficiently since incorporation.

We continue to file new patent applications from new in-house product development, and have a strong growing intellectual property portfolio to protect our products and proprietary platform.

We have a strong intellectual property portfolio covering the key aspects of our manufacturing processes and product platforms. Our in-house product development team consists of 14 scientists who are dedicated to developing new therapeutic candidates and optimizing current manufacturing processes. All of our patent families are currently in various stages of the patent approval process, and as leaders in the path towards the commercialization of GD-Ts we hold significant first-mover advantage captured by trade secrets and know-how.

Our policy of developing strategic alliances has and will provide additional support for product development and commercialization.

We believe that strategic alliances, both historic and potential future alliances, have and will provide extensive experience in scale-up and automation, culture media manufacture and post-authorization sales and marketing with regional expertise.. Additionally, we expect to use knowledge gained from our collaborations to improve development pathways for our unpartnered CAR-T therapeutic candidate programs.

We have a highly knowledgeable and experienced management team with extensive industry experience and expertise in the United States and in Europe.

Our senior management has substantial experience in the biopharmaceutical industry, including our Chief Executive, Chairman and co-Founder, Dr Michael Leek, who has 30 years' experience of commercial regenerative medicine, serving on senior management teams and boards of public and private companies in the biotechnology sector, including several years as a founding director of Intercytex - a UK-based cell therapy company which listed on AIM in 2006. Our Chief Operating Officer and co-founder, Angela Scott, has 38 years of experience in cancer research and commercial biotechnology, working across several disciplines including preclinical and clinical development plus GMP manufacture; she was also one of the small team directly responsible for cloning Dolly the Sheep at PPL. Bryan Kobel, our recently appointed Chief Executive of TC BioPharm (North America) Inc and CEO designate (post listing) of TC BioPharm (Holdings) plc brings a US presence to our executive team and over 15 years' experience in Healthcare and Life Sciences capital markets. Martin Thorp, Chief Financial Officer has over 30 years' experience in implementing capital strategies globally from seed investment to IPO. He was global CEO of Arthur Andersen Corporate Finance based in New York. Dr Alan Clark, Chief Technical Officer has over 20 years' experience biotech and pharma including Organon NV and Alere Inc. Dr Sebastian Wanless, who heads our clinical and regulatory team, has over 30 years industry experience in clinical research and medical affairs. Sebastian was VP of Intercontinental Research at Bristol-Myers Squibb in the United States with international experience in Europe and Japan.

Ability to treat patients under the 'Specials' regulatory framework.

European regulations (Regulation 167 of the Human Medicines Regulations 2012) set out the exemption from the requirement for a medicinal product, placed on the market in the UK to hold a marketing authorization. This exemption flows from Article 5(1) of EU Directive 2001/83/EC, which states that a member of the EU may, in

accordance with legislation in force and to fulfil special needs, excludes from the provisions of this Directive medicinal products supplied in response to a bona fide unsolicited order, formulated in accordance with the specifications of an authorized healthcare professional and for use by an individual patient under his or her direct personal responsibility. Such an unlicensed medicinal product may only be supplied in order to meet the special needs of an individual patient. An unlicensed medicinal product should not be supplied where an equivalent licensed medicinal product can meet the special needs of the patient. Responsibility for deciding whether an individual patient has "special needs" which a licensed product cannot meet should be a matter for the doctor, dentist, nurse independent prescriber, pharmacist independent prescriber or supplementary prescriber responsible for the patient's care.

In 2016 we were granted 'Specials' License by the UK Medicines and Healthcare Regulatory Agency (MHRA). We have embraced the opportunity for broadening patient population by treating individual patients with different tumor types through a 'Specials' License. Clinicians have expressed strong initial interest in treating patients with solid tumors; along with blood-borne tumors such as multiple myeloma, chronic myeloid leukemia (CML) and chronic lymphocytic leukemia (CLL) with TCB008-001.

In terms of time and cost, the 'Specials' scheme is an attractive strategy. We believe that accumulating evidence by this route could lead to rapid and wider product uptake through 'off-label' use.

Intellectual Property

We have a strong portfolio of patents covering manufacture and commercialization of GD-T cell products and their modification*via* CAR-T (summarized below). Our technology platform and clinical programs have enabled us to raise over $50 million in grant, equity and collaboration funding since becoming operational in 2017. This financing has allowed us to enhance and expand our clinical and preclinical programs as well as build our team of world-class scientists.

The following table provides an overview of our core technology platforms, technology assets and competencies across the business. Additional details of our intellectual property portfolio are provided below.

ASSET SUMMARY	ATTRIBUTES
GD-T Vehicle	● Readily available and expanded to high numbers. ● Not MHC-restricted, therefore no graft vs host disease – an allogeneic platform. ● Pre-programmed tropism for infiltration of diseased tissue. ● Multiple modes of innate cytotoxicity and coordinating a wider immune response. ● Clinical tolerability of the allogeneic vehicle demonstrated at high dose level. ● Naturally arising in different subtypes offering a menu of vehicles with unique properties.
Allogeneic Cell Banks	● Donor GD-Ts selection based on highest therapeutic quality. ● Reproducible product with low cost-of-goods compared with autologous (patient-bespoke) therapies, can be frozen-shipped, thawed at clinic. ● Well understood clinical and regulatory pathway to commercialization.
Co-stimulatory CAR-T	● Elimination of off-tumor toxicity. ● Reduction of cytokine release from killing healthy cells. ● Reliance on natural T cell activation and no tonic signaling ● Antigen expression on healthy tissue tolerated – greatly expanded range. ● Ability to use multiple co-stimulatory receptors to add functionality.
Integrated Business Model	● Full control of critical stages of development projects, which increases speed and reliability of development and production, optimizes operations to our specialized products and materially reduces our cost base ● No pass-through or transaction costs form external service providers, which increases efficiency and speed of development and manufacturing and materially reduces our cost base ● In-house clinical management ensures best chance of clinical success and avoids use of very expensive clinical management in early-stage trials, materially reducing our cost base.

The strength of our patents involves complex legal and scientific questions and can be uncertain. We currently own over 60 pending patent applications worldwide.

We actively seek to protect the intellectual property and proprietary technology that we believe is important to our business, including seeking, maintaining, enforcing and defending patent rights for our therapeutics and processes, whether developed internally or licensed from third parties. Our success will depend on our ability to obtain and maintain patent and other protection including data/market exclusivity for our therapeutic products and platform technology, preserve the confidentiality of our know-how and operate without infringing the valid and enforceable patents and proprietary rights of third parties.

Our policy is to seek to protect our proprietary position generally by filing an initial priority filing at the U.K. Intellectual Property Office, or UKIPO. This is followed by the filing of a patent application under the Patent Co-operation Treaty claiming priority from the initial application(s) and then progressing to national applications in, for example, the United States, Europe, Japan, Australia, New Zealand, China and Canada. In each case, we determine the strategy and territories required after discussion with our patent professionals to ensure that we obtain relevant coverage in territories that are commercially important to us and our GD-T therapeutic candidates. We will additionally rely on data exclusivity, market exclusivity and patent term extensions when available, including as relevant exclusivity through orphan or pediatric drug designations. We also rely on trade secrets and know-how relating to our underlying platform technology and therapeutic products. Prior to making any decision on filing any patent application, we consider, with our patent professionals, whether patent protection is the most sensible strategy for protecting the invention concerned or whether the invention should be maintained as confidential.

As of July 1, 2021, we owned 2 granted patents and 46 patent applications in 6 families, and have an exclusive license to an additional 1 family of 14 patents. Consistent with the filing strategy outlined above, all of our applications are either UK applications, PCT applications or national phase applications derived from a corresponding PCT application. All sets of national phase applications include a US application. These patent applications include claims directed to our therapeutic products and platform technology or other manufacturing and process technology to further enable our therapeutic products and manufacturing methods.

WO 2016/166544 (Modified Gamma Delta T Cells and uses thereof). International filing date April 14, 2016, earliest priority date April 15, 2015, expiry date is October 7, 2036.

We own a patent application covering a method of treatment for cancer using GD-T cells that express chimeric antigen receptors (CARs). The patent application claims are directed to GD-T cells expressing a co-stimulatory CAR, the advantages of the co-stimulatory CAR by inhibiting on-target, off-tumor activation due to its design, to the method and process of modifying a GD-T cell to express the co-stimulatory CAR, and to medical uses of the modified GD-T cell. Application has issued as a granted patent in the US (US 10881688 B2). National applications are pending in: Australia, Brazil, Canada, China, Hong Kong, Israel, Japan, South Korea, New Zealand, Singapore and South Africa. Regional applications are pending before the European and Eurasian Patent Offices.

WO 2016/174461 (T cell which expresses a Gamma Delta T cell receptor and a Chimeric Antigen Receptor). International filing date April 29, 2016, earliest priority date April 30, 2015. Expiry date will be April 28, 2036 in most jurisdictions. Further patent term adjustments may apply in the US.

We are the exclusive licensee of a patent application owned by UCL Business plc covering a method of treatment using a T cell which expresses a Gamma Delta T cell receptor and a chimeric antigen receptor. The patent application claims are directed to GD-T cells expressing a co-stimulatory CAR, the advantages of the co-stimulatory CAR by inhibiting on-target, off-tumor activation due to its design, to the method and process of modifying a GD-T cell to express the co-stimulatory CAR, and to medical uses of the modified GD-T cell. National applications are pending in: Australia, Brazil, Canada, China, Hong Kong, Israel, Japan, South Korea, New Zealand, Singapore, South Africa, and the US. Regional applications are pending before the European and Eurasian Patent Offices.

WO 2016/005752 (Gamma Delta T cells and uses thereof). International filing date July 8, 2015, earliest priority date July 9, 2014. Expiry date for the patent granted in Israel will be July 7, 2035.

We own a patent application covering the method of preparing and using GD-T cells in the allogeneic treatment of subjects suffering from viral infection, fungal infection, protozoal infection or cancer. The patent application claims are directed to the process of providing GD-T cells from a first subject to a second subject (allogeneic transfer). Patent has been granted in Israel, national applications are pending in the US and Japan, and a regional application is pending before the European Patent Office

WO 2018/138522 (Immune cells with modified metabolism and their use thereof). International filing date January 26, 2018, earliest priority date January 26, 2017.

We own a patent application covering gamma-delta T cells which overexpress the SLC1A5 amino acid transporter thereby improving tryptophan uptake in those cells and providing them with resistance to proliferative arrest in low tryptophan environments such as the tumour microenvironment. The patent also covers methods of engineering SLC1A5 overexpressing T cells. National applications are pending in: Australia, Brazil, Canada, China, Hong Kong, Israel, Japan, South Korea, New Zealand, Singapore, South Africa, and the US. Regional applications are pending before the European and Eurasian Patent Offices.

WO 2019/064030 (Modified CAR-T). International filing date October 1, 2018, earliest priority date September 29, 2017.

We own a patent application covering chimeric antigen receptors comprising an intracellular signaling domain derived from GD T cell surface receptors. When expressed in GD or natural killer (NK) cells, the resultant CAR-T cells exhibit improved cytotoxicity. National applications are pending in: Australia, Brazil, Canada, China, Hong Kong, Israel, Japan, South Korea, New Zealand, Singapore, South Africa, and the US. Regional applications are pending before the European and Eurasian Patent Offices.

GB 2015543.8(Genetically engineered GD T cells). Filing date September 30, 2020.

We own a patent application covering chimeric antigen receptor constructs which lack a functional intracellular signaling domain and which are capable of binding to a target antigen which identifies a stressed or transformed cell. The constructs may be expressed in GD T cells or natural killer (NK) cells. We anticipate that GB 2015543.8 will include composition of matter, methods of manufacture and method of use claims. A priority application has been filed in the UK.

GB 2104070.4 (Antigen binders and uses thereof). Filing date March 23, 2021

We own a patent application covering novel antibodies and antibody fragments capable of binding the B7H4 protein, to chimeric antigen receptors (CARs) incorporating a said antibody fragment, to T cells expressing the said CARs and to medical uses of those T cells. We anticipate that GB 2104070.4 will include composition of matter, methods of manufacture and method of use claims. A priority application has been filed in the UK.

GB 2569692 (T cell antigen receptor chimera). Filing date October 30, 2018.

In addition to the above 7 patent families, we own a published patent application covering antigen receptor chimeras incorporating the antigen-binding specificity of an alpha-beta T cell receptor with a costimulatory only intracellular signaling domain, for example as discussed in the above pending patent applications derived from WO2016/166544. This application was allowed to publish in the UK, thereby establishing it as prior art against potential competitors, but was not progressed to examination.

Platform technology patent applications - We have several other patent applications in the process of being drafted, improving T cell efficacy by modulating PD1 expression, additional methods of expanding Vd1 gamma-delta T cell populations and improvements to our GD CAR-T platform

Government Regulation and Product Approval

As a biopharmaceutical company, we are subject to extensive regulation. Our product candidates, if approved, will be regulated as biological medicines. With this classification, commercial production of our products will need to occur in registered and licensed facilities in compliance with current Good Manufacturing Practices, or cGMPs, for biologics.

Human immunotherapy products are a new category of therapeutics. The FDA categorizes human cell- or tissue-based products as either minimally manipulated or more than minimally manipulated and has determined that more than minimally manipulated products require clinical trials to demonstrate product safety and efficacy and the submission of a Biologics License Application, or BLA, for marketing authorization.

Government authorities in the United States (at the federal, state and local level) and in other countries and jurisdictions, including the European Union, extensively regulate, among other things, the research, development, preclinical and clinical testing, manufacturing, quality control, labeling, packaging, storage, record-keeping, promotion, advertising, sale, distribution, post-approval monitoring and reporting, marketing and export and import of biopharmaceutical products such as those we are developing. Our product candidates must be approved by the FDA before they may be legally marketed in the United States and by the appropriate foreign regulatory agency before they may be legally marketed in foreign countries. Generally, our activities in other countries will be subject to regulation that is similar in nature and scope as that imposed in the United States, although there can be important differences. Additionally, some significant aspects of regulation in Europe are addressed in a centralized way, but country-specific regulation remains essential in many respects. The process for obtaining regulatory marketing approvals and the subsequent compliance with applicable federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources.

United States Product Development Process

In the United States, the FDA regulates biological products under the Public Health Service Act, or PHSA, and the Federal Food, Drug and Cosmetic Act, or FDCA, and implementing regulations. Products are also subject to other federal, state and local statutes and regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. FDA sanctions could include, among other actions, refusal to approve pending applications, withdrawal of an approval, a clinical hold,

warning letters and similar public notice of alleged non-compliance with laws, product recalls or withdrawals from the market, product seizures, total or partial suspension of production or distribution, fines, refusals of government contracts, restitution, disgorgement of profits, or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us. The process required by the FDA before a biological product may be approved for marketing in the United States generally involves the following:

- completion of preclinical laboratory tests and animal studies according to Good Laboratory Practices, or GLPs, and applicable requirements for the humane use of laboratory animals or other applicable regulations;
- submission to the FDA of an Investigational New Drug Application, or IND, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials according to the FDA's regulations commonly referred to as Good Clinical Practices, or GCPs, and any additional requirements for the protection of human research subjects and their health information, to establish the safety and efficacy of the proposed biological product for its intended use;
- preparation and submission to the FDA of a Biologics License Application, or BLA, for marketing approval that includes substantive evidence of safety, purity, and potency from results of nonclinical testing and clinical trials;
- satisfactory completion of one or more FDA inspections of the manufacturing facility or facilities where the biological product is produced to assess compliance with cGMP to assure that the facilities, methods and controls used in product manufacture are adequate to preserve the biological product's identity, strength, quality and purity and, if applicable, the FDA's current Good Tissue Practices, or GTPs, for the use of human cellular and tissue products;

- potential FDA audit of the nonclinical study and clinical trial sites that generated the data in support of the BLA;
- payment of user fees for FDA review of the BLA; and
- FDA acceptance, review and approval, or licensure, of the BLA, which might include review by an advisory committee, a panel typically consisting of independent clinicians and other experts who provide recommendations as to whether the application should be approved and under what conditions.

Before testing any biological product candidate, including our product candidates, in humans, the product candidate must undergo rigorous the preclinical testing. Preclinical tests, also referred to as nonclinical studies, include laboratory evaluations as well as in vitro and animal studies to assess the potential safety and efficacy of the product candidate. After sufficient preclinical testing has been conducted, the conduct of the preclinical tests must comply with federal regulations and requirements including GLPs. The clinical trial sponsor must submit an IND to the FDA before clinical testing can begin in the United States. An IND must contain the results of the preclinical tests, manufacturing information, analytical data, any available clinical data or literature, a proposed clinical protocol, an investigator's brochure, a sample informed consent form, and other materials. Clinical trial protocols detail, 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. Some preclinical testing, such as toxicity studies, may continue even after the IND is submitted.

The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA raises concerns or questions regarding the proposed clinical trials or places the trial on a clinical hold within that 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 may also impose clinical holds on a biological product candidate at any time before or during clinical trials due to safety concerns or non-compliance. If the FDA imposes a clinical hold, trials may not recommence without FDA authorization and then only under terms authorized by the FDA. Accordingly, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such trials.

Further, each clinical trial must be reviewed and approved by an independent institutional review board, or IRB, at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of trial 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 involving recombinant or synthetic nucleic acid molecules also must be reviewed by an institutional biosafety committee, or IBC, a local institutional committee that reviews and oversees basic and clinical research conducted at that institution. The IBC assesses the safety of the research and identifies any potential risk to public health or the environment.

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 trial sponsor's control. Clinical trials must be conducted and monitored in accordance with the FDA's regulations comprising the GCP requirements, including the requirement that all research patients provide informed consent.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- *Phase 1*. The biological product 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 with the target disease or condition.
- *Phase 2*. The biological product is evaluated in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance, optimal dosage and dosing schedule.
- *Phase 3*. Clinical trials are undertaken to further evaluate dosage, clinical efficacy, potency, and safety in an expanded patient population, generally at geographically dispersed clinical trial sites. These clinical trials are intended to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk to benefit profile of the product and to provide an adequate basis for product labeling.

Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, if at all.

Post-approval clinical trials, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These clinical trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication, particularly for long-term safety follow-up.

During all phases of clinical development, regulatory agencies require 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 patients, 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 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. The FDA or the sponsor or its data safety monitoring board, an independent group of experts that evaluates study data for safety and makes recommendations concerning continuation, modification, or termination of clinical trials, may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research patients are being exposed to an unacceptable health risk, including risks inferred from other unrelated immunotherapy trials. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the biological product has been associated with unexpected serious harm to patients.

Because this is a relatively new and expanding area of novel therapeutic interventions, there can be no assurance as to the length of the trial period, the number of patients the FDA will require to be enrolled in the trials in order to establish the safety, efficacy, purity and potency of immunotherapy products, or that the data generated in these trials will be acceptable to the FDA to support marketing approval.

Concurrently with clinical trials, companies usually complete additional nonclinical studies and must also 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 PHSA 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.

United States Review and Approval Processes

After the completion of clinical trials of a biological product, 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 trials, information on the manufacture and composition of the product, proposed labeling and other relevant information. The testing and approval processes require substantial time and effort and there can be no assurance that the FDA will accept the BLA for filing and, even if filed, that any approval will be granted on a timely basis, if at all as the FDA has significant discretion to approve or reject the BLA and to require additional preclinical or clinical studies.

Under the Prescription Drug User Fee Act, or PDUFA, as amended, each BLA must be accompanied by a significant user fee. The FDA adjusts the PDUFA user fees on an annual basis. PDUFA also imposes an annual program fee for approved biological products. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on BLAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

Within 60 days following submission of the application, the FDA reviews a BLA submitted to determine if it is substantially complete before the agency 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. 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, potent, and/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 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 biological product approval process, the FDA also will determine whether a Risk Evaluation and Mitigation Strategy, or REMS, is necessary to ensure that the benefits of the product outweigh its risks and to assure the safe use of the biological product, which could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. FDA determines the requirement for a REMS, as well as the specific REMS provisions, on a case-by-case basis. If the FDA concludes a REMS is needed, the sponsor of the BLA must submit a proposed REMS. The FDA will not approve a BLA without a REMS, if required.

Before approving a BLA, the FDA 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 immunotherapy products, the FDA also will not approve the product if the manufacturer is not in compliance with the GTPs, to the extent applicable. These are FDA regulations and guidance documents that govern the methods used in, and the facilities and controls used for, the manufacture of human cells, tissues, and cellular and tissue based products, or HCT/Ps, which are human cells or tissue intended for implantation, transplant, infusion, or transfer into a human recipient. The primary intent of the GTP 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 GTP regulations also require tissue establishments to register and list their HCT/Ps with the FDA and, when applicable, to evaluate donors through 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 trial requirements and GCP requirements.

To assure cGMP, GTP and GCP compliance, an applicant must incur significant expenditure of time, money and effort in the areas of training, recordkeeping, production, and quality control.

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 agency decides not to approve the BLA in its then current form, the FDA will issue a Complete Response Letter, which generally outlines the specific deficiencies in the BLA identified by the FDA and may require additional clinical or other data or impose other conditions that must be met in order to secure final approval of the application. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Even with the submission of additional information, the FDA may ultimately decide that the application does not satisfy the regulatory criteria 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 is limited to the conditions of use (*e.g.*, patient population, indication) described in the application.

Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling, 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. After approval, many types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

In addition, under the Pediatric Research Equity Act, or PREA, a BLA or supplement to a BLA must contain data to assess the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may grant deferrals for submission of data or full or partial waivers.

United States Post-Approval Requirements

Any products for which we receive FDA approvals are subject to continuing regulation by the FDA, including, among other things, record-keeping requirements, reporting of adverse experiences with the product, providing the FDA with updated safety and efficacy information, product sampling and distribution requirements, and

complying with FDA promotion and advertising requirements, which include, among others, standards for direct-to-consumer advertising, restrictions on promoting products for uses or in patient populations that are not described in the product's approved uses (known as "off-label use"), limitations on industry-sponsored scientific and educational activities, and requirements that important safety information and material facts related to the product be disclosed. Although physicians may prescribe legally available products for off-label uses, if the physicians deem to be appropriate in their professional medical judgment, manufacturers may not market or promote such off-label uses. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant civil, criminal and administrative liability.

In addition, quality control and manufacturing procedures must continue to conform to applicable manufacturing requirements after approval to ensure the long-term stability of the product. We currently are making clinical trial product in our own facilities in Scotland, United Kingdom. In the future, however, we expect to rely, on third parties for the production of commercial quantities of our products in accordance with cGMP regulations. cGMP regulations require among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation and the obligation to investigate and correct any deviations from cGMP. Manufacturers and other entities involved in the manufacture and distribution of approved products 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 and other laws. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance. Discovery of problems with a product after approval may result in restrictions on a product, manufacturer, or holder of an approved BLA, including, among other things, recall or withdrawal of the product from the market.

The FDA also may require post-marketing testing, known as Phase 4 testing, and surveillance to monitor the effects of an approved product. Discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, with manufacturing processes, or the failure to comply with applicable FDA requirements can have negative consequences, including adverse publicity, judicial or administrative enforcement, complete withdrawal from the market, product recalls, warning letters from the FDA, mandated corrective advertising or communications with doctors, product seizure or detention, injunctions, and civil or criminal penalties, among others. Newly discovered or developed safety or effectiveness data may require changes to a product's approved labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures. Also, new government requirements, including those resulting from new legislation, may be established, or the FDA's policies may change, which could delay or prevent regulatory approval of our products under development.

United States Marketing Exclusivity

The Biologics Price Competition and Innovation Act amended the PHSA to authorize the FDA to approve similar versions of innovative biologics, commonly known as biosimilars. Biosimilars are approved pursuant to an abbreviated pathway whereby applicants need not submit the full slate of preclinical and clinical data, and approval is based in part on the FDA's findings of safety, purity, and potency for the original biologic (i.e., the reference product). Original BLAs are eligible to receive 12 years of exclusivity from the time of first licensure of the product, which prevents the FDA from approving any biosimilars to the reference product through the abbreviated pathway, but does not prevent approval of BLAs that are accompanied by a full data package and that do not rely on the reference product. A biosimilar may be approved if the product is highly similar to the reference product notwithstanding minor differences in clinically inactive components and there are no clinically meaningful differences with the reference product in terms of the safety, purity, and potency.

Pediatric exclusivity is another type of regulatory 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 trial in accordance with an FDA-issued "Written Request" for such a trial.

United States Coverage, Pricing and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which we obtain*regulatory* approval. In the United States and markets in other countries, sales of any products for which we receive regulatory approval for commercial sale will depend, in significant part, on the extent to which third-party payors provide coverage, and establish adequate reimbursement levels for such products. In the United States, third-party payers include federal and state healthcare programs, private managed care organizations, health insurers and other organizations. The process for determining whether a third-party payer will provide coverage for a product may be separate from the process of establishing the reimbursement rate that such a payor will pay for the product. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the FDA-approved products for a particular indication. Third-party payors are increasingly challenging the price, examining the medical necessity of and reviewing the cost-effectiveness of medical products, therapies and services, in addition to questioning their safety and efficacy.

Reimbursement may impact the demand for, and/or the price of, any product candidate which obtains marketing approval. Even if coverage and reimbursement is obtained for a given product candidate by a third-party payor, the resulting reimbursement payment rates may not be adequate or may require co-payments that patients find unacceptably high. Patients who are prescribed medications for the treatment of their conditions, and their prescribing physicians, generally rely on third-party payors to reimburse all or part of the costs associated with those medications. Patients are unlikely to use a product, and physicians may be less likely to prescribe a product, unless coverage is provided and reimbursement is adequate to cover all or a significant portion of the cost of the product. Therefore, coverage and adequate reimbursement is critical to new drug product acceptance.

Different pricing and reimbursement schemes exist in other countries. In the EU, governments influence the price of pharmaceutical products through their pricing and reimbursement rules and control of national healthcare systems that fund a large part of the cost of those products to consumers. Some jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of additional clinical trials that compare the cost-effectiveness of a particular product candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines, but monitor and control company profits. In addition, in some countries, cross-border imports from low-priced markets exert a commercial pressure on pricing within a country.

The downward pressure on healthcare costs in general, particularly prescription drugs and biologics, has become very intense. Governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. As a result, increasingly high barriers are being erected to the entry of new products. The marketability of any product candidates for which we receive regulatory approval for commercial sale may suffer if the government and third-party payors fail to provide coverage and adequate reimbursement. In addition, emphasis on managed care in the United States has increased and we expect will continue to increase the pressure on healthcare pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

United States Healthcare Laws Governing Interactions with Healthcare Providers

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal laws restrict our business activities, including certain marketing practices. These laws include, without limitation, anti-kickback laws, false claims laws, data privacy and security laws, as well as transparency laws regarding payments or other items of value provided to healthcare providers.

The U.S. federal Anti-Kickback Statute prohibits any person or entity from, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item, good, facility or service reimbursable, in whole or in part, under Medicare, Medicaid or other federal healthcare programs. The term ''remuneration'' has been broadly interpreted to include anything of value. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other hand. Although there are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration that are alleged to be intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the U.S. federal Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all its facts and circumstances. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the U.S. federal Anti-Kickback Statute has been violated. Additionally, the intent standard under the U.S. federal Anti-Kickback Statute was amended by the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act of 2010, collectively the Affordable Care Act, or ACA, to a stricter standard such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. In addition, the ACA codified case law that a claim including items or services resulting from a violation of the U.S. federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the U.S. federal False Claims Act.

Federal civil and criminal false claims laws and civil monetary penalties laws, including the U.S. federal False Claims Act, which can be enforced through civil whistleblower or qui tam actions, prohibit any person or entity from, among other things, knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to have a false claim paid. Pharmaceutical and other healthcare companies have been prosecuted under these laws for, among other things, allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws. Further, pharmaceutical manufacturers can be held liable under the U.S. federal False Claims Act even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims.

The U.S. federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created new federal criminal statutes that prohibit among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third- party payors, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Like the U.S. federal Anti-Kickback Statute, the ACA amended the intent standard for certain healthcare fraud under HIPAA such that a person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and their implementing regulations, impose certain requirements on "covered entities," including certain healthcare providers, health plans and healthcare clearinghouses, as well as their respective "business associates" that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity, and their covered subcontractors, relating to the privacy, security, transmission and breach of individually identifiable health information. Further, HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in U.S. federal courts to enforce HIPAA and seek attorneys' fees and costs associated with pursuing federal civil actions.

Additionally, the federal Physician Payments Sunshine Act, created under the ACA, and its implementing regulations, require certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to annually report to the Centers for Medicare and Medicaid Services, or CMS, information related to certain payments or other transfers of value provided to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals as well as certain ownership and investment interests held by physicians and their immediate family members. Beginning in 2022, applicable manufacturers also will be required to report information regarding payments and transfers of value provided to physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists, anesthesiologist assistants, and certified nurse-midwives.

Additionally, similar healthcare laws and regulations in the European Union and other jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers and laws governing the privacy and security of certain protected information, such as GDPR, which imposes obligations and restrictions on the collection and use of personal data relating to individuals located in the European Union (including health data).

Finally, the majority of states also have statutes or regulations similar to the aforementioned federal laws, some of which are broader in scope and apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor. Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report information related to payments to clinicians and other healthcare providers or marketing expenditures. Some states and local jurisdictions require the registration of pharmaceutical sales representatives. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of their exceptions and safe harbors, it is possible that business activities can be subject to challenge under one or more of such laws. The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. 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.

Ensuring that business arrangements with third parties comply with applicable healthcare laws and regulations is costly and time consuming. If business operations are found to be in violation of any of the laws described above or any other applicable governmental regulations a pharmaceutical manufacturer may be subject to penalties, including civil, criminal and administrative penalties, damages, fines, disgorgement, individual imprisonment, exclusion from governmental funded healthcare programs, such as Medicare and Medicaid, contractual damages, reputational harm, diminished profits and future earnings, additional reporting obligations and oversight if subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with these laws, and curtailment or restructuring of operations, any of which could adversely affect a pharmaceutical manufacturer's ability to operate its business and the results of its operations.

United States Healthcare Reform Efforts

A primary trend in the United States healthcare industry and elsewhere is cost containment. Over the last several years, there have been federal and state proposals and legislation enacted regarding the pricing of pharmaceutical and biopharmaceutical products, limiting coverage and reimbursement for drugs and other medical products, and making changes to healthcare financing and the delivery of care in the United States.

There continues to be heightened Congressional scrutiny in the United States of pharmaceutical pricing practices designed to, among other things, bring more

transparency in product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for products. At the state level, legislatures have increasingly enacted legislation and implemented regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs.

In addition, other federal health reform measures have been proposed and adopted in the United States that could impact cell therapy. Most notably, there has been political support for rules related to value-based payment alternatives in the Medicaid program. Medicaid is a jointly run federal and state program that provides health benefits coverage for low-income residents and children. In exchange for broad coverage in Medicaid, drug manufacturers are required to sign a Medicare Drug Rebate agreement which requires them to offer Medicaid programs the "best price" available for a particular product. This "best price" takes into consideration any rebates or concessions manufacturers offer, with some exceptions. The final rule would exempt value-based or outcomes-based payment arrangements from the definition of "best price" which provides manufacturers more flexibility to work with commercial payers and states on innovate payment mechanisms for high-cost cell and gene therapies. While Medicaid is not a significant driver of cell therapy sales it is a bellwether program and one we watch closely.

United States FCPA, the Bribery Act and Other Laws

The FCPA, prohibits any U.S. individual or business from paying, offering, or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations. Activities that violate the FCPA, even if they occur wholly outside the United States, can result in criminal and civil fines, imprisonment, disgorgement, oversight, and debarment from government contracts.

Our operations are also subject to non-U.S. anti-corruption laws such as the Bribery Act. As with the FCPA, these laws generally prohibit us and our employees and intermediaries from authorizing, promising, offering, or providing, directly or indirectly, improper or prohibited payments, or anything else of value, to government officials or other persons to obtain or retain business or gain some other business advantage. Under the Bribery Act, we may also be liable for failing to prevent a person associated with us from committing a bribery offense.

We are also subject to other laws and regulations governing our international operations, including regulations administered by the governments of the United Kingdom and the United States and authorities in the European Union, including applicable export control regulations, economic sanctions and embargoes on certain countries and persons, anti-money laundering laws, import and customs requirements and currency exchange regulations, collectively referred to as trade control laws.

Failure to comply with the Bribery Act, the FCPA and other anti-corruption laws and trade control laws could subject us to criminal and civil penalties, disgorgement and other sanctions and remedial measures, and legal expenses.

Review and Approval of New Drug Products in the European Union

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. ATMPs comprise gene therapy products, somatic-cell therapy products and tissue engineered products, which are cells or tissues that have undergone substantial manipulation and that are administered to human beings in order to regenerate, repair or replace a human tissue. We anticipate that our therapy products will be regulated as ATMPs in the European Union. There is legislation at a European Union level relating to the standards of quality and safety for the collection and testing of human blood and blood components for use in cell-based therapies, which could apply to our products. Additionally, there may be local legislation in various European Union Member States, which may be more restrictive than the European Union legislation, and we would need to comply with such legislation to the extent it applies.

EU Clinical Trials

Clinical trials of medicinal products in the European Union must be conducted in accordance with European Union and national regulations and the International Conference on Harmonization, or ICH, guidelines on Good Clinical Practices, or GCP. Additional GCP guidelines from the European Commission, focusing in particular on traceability, apply to clinical trials of ATMPs. The sponsor must take out a clinical trial insurance policy, and in most European Union countries, the sponsor is liable to provide "no fault" compensation to any study subject injured in the clinical trial.

Prior to commencing a clinical trial, the sponsor must obtain a clinical trial authorization from the competent authority, and a positive opinion from an independent ethics committee. The application for a clinical trial authorization must include, among other things, a copy of the trial protocol and an investigational medicinal product dossier containing information about the manufacture and quality of the medicinal product under investigation. Currently, clinical trial authorization applications must be submitted to the competent authority in each EU Member State in which the trial will be conducted. Under the new Regulation on Clinical Trials, which is to take effect in December 2021, there will be a centralized application procedure where one national authority takes the lead in reviewing the application and the other national authorities have only a limited involvement. Any substantial changes to the trial protocol or other information submitted with the clinical trial applications must be notified to or approved by the relevant competent authorities and ethics committees. Medicines used in clinical trials must be manufactured in accordance with cGMP. Other national and European Union-wide regulatory requirements also apply.

During the development of a medicinal product, the EMA and national medicines regulators within the European Union provide the opportunity for dialogue and guidance on the development program. At the EMA level, this is usually done in the form of scientific advice, which is given by the Scientific Advice Working Party of the Committee for Medicinal Products for Human Use, or CHMP. A fee is incurred with each scientific advice procedure. Advice from the EMA is typically provided based on questions concerning, for example, quality (chemistry, manufacturing and controls testing), nonclinical testing and clinical studies, and pharmacovigilance plans and risk-management programs. In accordance with the EMA's policy, scientific advice will not be legally binding with regard to any future marketing authorization application of the product concerned.

EU Marketing Authorizations

In order to market a new medicinal product in the European Union, a company must submit and obtain approval from regulators of a marketing authorization application, or MAA. The process for doing this depends, among other things, on the nature of the medicinal product.

The centralized procedure results in a single marketing authorization, or MA, granted by the European Commission that is valid across the EEA (i.e., the European Union as well as Iceland, Liechtenstein and Norway). The centralized procedure is compulsory for human drugs that are: (i) derived from biotechnology processes, such as genetic engineering, (ii) contain a new active substance indicated for the treatment of certain diseases, such as HIV/AIDS, cancer, diabetes, neurodegenerative diseases, autoimmune and other immune dysfunctions and viral diseases, (iii) officially designated orphan medicines and (iv) advanced-therapy medicines, such as gene therapy, somatic cell therapy or tissue-engineered medicines. The centralized procedure may at the request of the applicant also be used in certain other cases. Therefore, the centralized procedure would be mandatory for the products we are developing.

The Committee for Advanced Therapies, or CAT, is responsible in conjunction with the CHMP for the evaluation of ATMPs. The CAT is primarily responsible for the

scientific evaluation of ATMPs and prepares a draft opinion on the quality, safety and efficacy of each ATMP for which a marketing authorization application is submitted. The CAT's opinion is then taken into account by the CHMP when giving its final recommendation regarding the authorization of a product in view of the balance of benefits and risks identified. Although the CAT's draft opinion is submitted to the CHMP for final approval, the CHMP may depart from the draft opinion, if it provides detailed scientific justification. The CHMP and CAT are also responsible for providing guidelines on ATMPs and have published numerous guidelines, including specific guidelines on gene therapies and cell therapies. These guidelines provide additional guidance on the factors that the EMA will consider in relation to the development and evaluation of ATMPs and include, among other things, the preclinical studies required to characterize ATMPs; the manufacturing and control information that should be submitted in a marketing authorization application; and post-approval measures required to monitor patients and evaluate the long-term efficacy and potential adverse reactions of ATMPs. Although these guidelines are not legally binding, we believe that our compliance with them is likely necessary to gain and maintain approval for any of our product candidates.

Under the centralized procedure in the European Union, the maximum timeframe for the evaluation of an MAA by the EMA is 210 days. This excludes so-called clock stops, during which additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP. At the end of the review period, the CHMP provides an opinion to the European Commission. If this is opinion favorable, the Commission may then adopt a decision to grant an MA. In exceptional cases, the CHMP might perform an accelerated review of an MAA in no more than 150 days. This is usually when the product is of major interest from the point of view of public health and, in particular, from the viewpoint of therapeutic innovation.

The European Commission may grant a so-called "marketing authorization under exceptional circumstances". Such authorization is intended for products for which the applicant can demonstrate that it is unable to provide comprehensive data on the efficacy and safety under normal conditions of use, because the indications for which the product in question is intended are encountered so rarely that the applicant cannot reasonably be expected to provide comprehensive evidence, or in the present state of scientific knowledge, comprehensive information cannot be provided, or it would be contrary to generally accepted principles of medical ethics to collect such information. Consequently, marketing authorization under exceptional circumstances may be granted subject to certain specific obligations, which may include the following:

- the applicant must complete an identified program of studies within a time period specified by the competent authority, the results of which form the basis of a reassessment of the benefit/risk profile;
- the medicinal product in question may be supplied on medical prescription only and may in certain cases be administered only under strict medical supervision, possibly in a hospital and in the case of a radiopharmaceutical, by an authorized person; and
- the package leaflet and any medical information must draw the attention of the medical practitioner to the fact that the particulars available concerning the medicinal product in question are as yet inadequate in certain specified respects.

A marketing authorization under exceptional circumstances is subject to annual review to reassess the risk-benefit balance in an annual reassessment procedure. Continuation of the authorization is linked to the annual reassessment and a negative assessment could potentially result in the marketing authorization being suspended or revoked. The renewal of a marketing authorization of a medicinal product under exceptional circumstances, however, follows the same rules as a "normal" marketing authorization. Thus, a marketing authorization under exceptional circumstances is granted for an initial five years, after which the authorization will become valid indefinitely, unless the EMA decides that safety grounds merit one additional five-year renewal.

The European Commission may also grant a so-called "conditional marketing authorization" prior to obtaining the comprehensive clinical data required for an application for a full marketing authorization. Such conditional marketing authorizations may be granted for product candidates (including medicines designated as orphan medicinal products), if (i) the risk-benefit balance of the product candidate is positive, (ii) it is likely that the applicant will be in a position to provide the required comprehensive clinical trial data, (iii) the product fulfills an unmet medical need and (iv) the benefit to public health of the immediate availability on the market of the medicinal product concerned outweighs the risk inherent in the fact that additional data are still required. A conditional marketing authorization may contain specific obligations to be fulfilled by the marketing authorization holder, including obligations with respect to the completion of ongoing or new studies, and with respect to the collection of pharmacovigilance data. Conditional marketing authorizations are valid for one year, and may be renewed annually, if the risk-benefit balance remains positive, and after an assessment of the need for additional or modified conditions and/or specific obligations. The timelines for the centralized procedure described above also apply with respect to the review by the CHMP of applications for a conditional marketing authorization.

EU Data Exclusivity

Marketing authorization applications for generic medicinal products do not need to include the results of preclinical and clinical trials, but instead can refer to the data included in the marketing authorization of a reference product for which regulatory data exclusivity has expired. If a marketing authorization is granted for a medicinal product containing a new active substance, that product benefits from eight years of data exclusivity, during which generic marketing authorization applications referring to the data of that product may not be accepted by the regulatory authorities, and a further two years of market exclusivity, during which such generic products may not be placed on the market. The two-year period may be extended to three years if during the first eight years a new therapeutic indication with significant clinical benefit over existing therapies is approved.

There is a special regime for biosimilars, or biological medicinal products that are similar to a reference medicinal product but that do not meet the definition of a generic medicinal product, for example, because of differences in raw materials or manufacturing processes. For such products, the results of appropriate preclinical or clinical trials must be provided, and guidelines from the EMA detail the type of quantity of supplementary data to be provided for different types of biological product. There are no such guidelines for complex biological products, such as gene or cell therapy medicinal products, and so it is unlikely that biosimilars of those products will currently be approved in the European Union. However, guidance from the EMA states that they will be considered in the future in light of the scientific knowledge and regulatory experience gained at the time.

EU Pediatric Development

In the European Union, companies developing a new medicinal product must agree to a Pediatric Investigation Plan, or PIP, with the EMA and must conduct pediatric clinical trials in accordance with that PIP, unless a deferral or waiver applies, (e.g., because the relevant disease or condition occurs only in adults). 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, in which case the pediatric clinical trials must be completed at a later date. Products that are granted a marketing authorization on the basis of the 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) or, in the case of orphan medicinal products, a two-year extension of the orphan market exclusivity. This pediatric reward is subject to specific conditions and is not automatically available when data in compliance with the PIP are developed and submitted.

EU Post-Approval Controls

The holder of a marketing authorization must establish and maintain a pharmacovigilance system and appoint an individual qualified person for pharmacovigilance, or QPPV, 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 marketing authorization applications 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 summary of product characteristics, and therefore all off-label promotion is prohibited. Direct-to-consumer advertising of prescription medicines is also prohibited in the European Union. Although general requirements for advertising and promotion of medicinal products are established under EU directives, the details are governed by regulations in each EU Member State and can differ from one country to another.

EU Pricing and Reimbursement in the European Union

Governments influence the price of medicinal products in the European Union through their pricing and reimbursement rules and control of national healthcare systems that fund a large part of the cost of those products to consumers. Some jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost-effectiveness of a particular product candidate to currently available therapies. Other EU Member States allow companies to fix their own prices for medicines, but monitor and control company profits. The downward pressure on healthcare costs in general, particularly prescription medicines, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products.

Brexit and the Regulatory Framework in the United Kingdom

The United Kingdom officially withdrew from the European Union on January 31, 2020 ("Brexit"). Pursuant to the formal withdrawal arrangements agreed between the United Kingdom and the European Union, the United Kingdom was subject to a transition period until December 31, 2020, or the Transition Period, during which European Union rules continued to apply. A trade and cooperation agreement, or the Trade and Cooperation Agreement, that outlines the future trading relationship between the United Kingdom and the European Union was agreed in December 2020.

Brexit may influence the attractiveness of the United Kingdom as a place to conduct clinical trials. The European Union's regulatory environment for clinical trials is being harmonized as part of the Clinical Trial Regulations, which come into full effect at the end of 2021, but it is currently unclear as to what extent the United Kingdom will seek to align its regulations with the European Union. Failure of the United Kingdom to closely align its regulations with the EU may have an effect on the cost of conducting clinical trials in the United Kingdom as opposed to other countries and/or make it harder to seek a marketing authorization for our product candidates on the basis of clinical trials conducted in the United Kingdom.

In the short term there will be few changes to clinical trials that only have sites in the United Kingdom. The MHRA have confirmed that the sponsor of a clinical trial can be based in the EEA for an initial period following Brexit. Further investigational medicinal products can be supplied directly from the EU/EEA to a trial site in the United Kingdom without further oversight until 1 January 2022, and to Northern Ireland beyond such date. The United Kingdom is now a "third country" for the purpose of clinical trials that have sites in the EEA. For such trials the sponsor/legal representative must be based in the EEA, and the trial must be registered on the EU Clinical Trials Register (including data on sites outside of the EEA).

The data exclusivity periods in the United Kingdom are currently in line with those in the European Union, but the Trade and Cooperation Agreement provides that the periods for both data and market exclusivity are to be determined by domestic law, and so there could be divergence in the future. It is currently unclear whether the MHRA in the United Kingdom is sufficiently prepared to handle the increased volume of marketing authorization applications that it is likely to receive.

Orphan designation in the United Kingdom following Brexit is based on the prevalence of the condition in the United Kingdom as opposed to the current position where prevalence in the European Union is the determinant. It is therefore possible that conditions that are currently designated as orphan conditions in the United Kingdom will no longer be and that conditions that are not currently designated as orphan conditions in the European Union will be designated as such in the United Kingdom.

EU Orphan Drug Designation

The European Medicines Agency (EMA) and FDA play a central role in facilitating the development and authorization of medicines for rare diseases, which are termed 'orphan medicines' in the medical world. In the EU, sponsors who obtain orphan designation benefit from protocol assistance, a type of scientific advice specific for designated orphan medicines, and market exclusivity once the medicine is on the market. Fee reductions are also available depending on the status of the sponsor and the type of service required. When planning the development of their medicinal product, sponsors should consult the relevant scientific guidelines.

The general therapeutic strategy for the treatment of AML has not changed substantially over the past 30 years. Excluding APL (which should be treated with all trans-retinoic acid), AML management is based primarily on induction, incorporating an anthracycline and cytarabine, and consolidation therapy, and/or allogeneic Hematopoietic Stem Cell Transplantation (alloHSCT). Induction/consolidation therapy leads to high CRs rates in those who are eligible for treatment and present a favourable risk profile.

Several novel agents are in various stages of development for the treatment of AML. Novel approaches include antibody-based immunotherapy and adoptive cell therapy that aim to improve anti-leukaemia T cell function, such as the therapies developed by TCB (TCB002). TCB002 was initially studied in patients with active relapsed or refractory AML who are not eligible or do not consent to high dose salvage chemotherapy and/or alloHSCT. In July 2019, TCB002 was granted 'orphan medicine' status from the FDA for Acute Myeloid Leukaemia (AML). As a follow on to TCB002, TCB intends to conduct phase 2b/3 studies to treat earlier stage AML and expects to commence treating patients in these trials (as TCB008-001) in H2 2021.

Employees

As of July _____, 2021, we had 68 full-time equivalent employees. Of these employees, 53 were in research and development (including in manufacturing and operations, and quality control and quality assurance), 10 in other key functions (including clinical, business development, finance, intellectual property, information technology and general administration) and 5 members of the executive team. We have never had a work stoppage and none of our employees are covered by collective bargaining agreements or represented by a labor union. We believe our employee relations are good.

Facilities

Our corporate headquarters and most of our operations, including our research and manufacturing facilities, are located at Maxim 1, 2 Parklands Way, Holytown, Motherwell, ML1 4WR, United Kingdom. The lease for this space expires _____ and covers a total leasable area of approximately 26,300 square feet. We believe that our office facilities and the production and research facilities in the United Kingdom are sufficient to meet our current needs.

Legal Proceedings

From time to time, we may be party to litigation that arises in the ordinary course of our business. We do not have any pending litigation that, separately or in the aggregate, would, in the opinion of management, have a material adverse effect on our results of operations, financial condition or cash flows.

MANAGEMENT

Directors and Senior Management

The following table sets forth certain information regarding our directors and executive officers as of July 2021. Unless otherwise stated, the individuals are referred to in their current roles with respect to TC BioPharm Limited prior to the corporate reorganization.

Name	Age	Position
Senior Management		
Dr Michael Leek	61	Chief Executive and Chairman of the Board
Bryan Kobel	41	Chief Executive Officer – TC BioPharm (North America) Inc.
Martin Thorp	68	Chief Financial Officer and Board director
Angela Scott	57	Chief Operating Officer and Board director
Dr Alan Clark	49	Chief Technical Officer and Board director
Dorothy Lister	60	Senior Director of Operations
Toby Rintoul	49	Senior Director of Finance
Dr Sebastian Wanless	65	Senior Clinical Director
Non-Executive Directors		
Kimihito Minoura	48	Director
Lorraine Porter	61	Director

Following the corporate reorganization and completion of this offering certain of the above officer positions will be changed as follows:

- Dr Michael Leek, Chief Executive and Chairman of TC BioPharm Limited is expected to become the Executive Chairman of the Board and an executive director of TC BioPharm (Holdings) plc
- Bryan Kobel, our recently appointed Chief Executive Officer of our future North American operations is expected to serve as our group Chief Executive Officer and an executive director of TC BioPharm (Holdings) plc as well as the Chief Executive Officer of TC BioPharm (North America) Inc.
- Martin Thorp is expected to become Chief Financial Officer and an executive director of TC BioPharm (Holdings) plc
- Angela Scott is expected to become Chief Executive Officer of TC BioPharm Limited
- Dr Alan Clark is expected to become Chief Translation Officer of TC BioPharm Limited
- Dorothy Lister is expected to become Chief Operating Officer of TC BioPharm Limited
- Toby Rintoul is expected to become Chief Financial Officer of TC BioPharm Limited
- Dr Sebastian Wanless is expected to become Chief Clinical Officer of TC BioPharm Limited

Management Persons

Dr Michael Leek (Chief Executive and Chair)

Michael Leek, Ph.D., MBA has served as our Chief Executive, founder and board member since July 2013. Prior to this, Dr. Leek served in senior management and board roles with, Intercytex plc, a cell therapy company he co-founded. While at Intercytex, Dr. Leek was involved in clinical development of cell therapies to treat chromic dermal wounds. Early in his career, he held roles of increasing responsibility at Smith and Nephew from 1989 to 1999 as leader of the Tissue Repair Enabling Technology team. Dr. Leek holds a Ph.D. (Forensic Medicine) from the University of Leeds. He has acted as an honorary lecturer at the School of Medical Sciences, University of Aberdeen since January 2014.

Bryan Kobel (Chief Executive – TC BioPharm (North America) Inc.)

Bryan Kobel joined TC BioPharm as Chief Executive Officer – TC BioPharm (North America) Inc. in June 2021. Prior to this he served as Managing Director at EF Hutton from October 2020 as the head of healthcare investment banking. From June 2018 to October 2020, Mr Kobel was Managing Director and head of healthcare/capital markets at the Alberleen Group where he led deal origination and structuring, as well as leading the sales efforts for transactions across the Healthcare and Technology sectors. From April 2017 to June 2018, he was Head of Capital Markets at R.F. Lafferty & Co. From March 2012 to April 2017, Mr Kobel was Managing Director, Capital Markets at Laidlaw & Company. Mr. Kobel holds a BA degree from Franklin & Marshall College and held the FINRA licenses Series 7, 63, 82, 79 and 24.

Martin Thorp (Chief Financial Officer)

Martin Thorp has been a board member since March 2016 and has served as the Chief Financial Officer since March 2019. From December 2014, Martin was founder (and from 2018 chairman) of a life science financial advisory firm, Copernican Capital Partners Limited (formally NCL Corporate Finance Limited), where he acted as corporate finance adviser to and investor in, several disruptive life science companies. Martin was also a co-founding director of a life science advisory and investment firm NCL Technology Ventures from 2014 to 2018. He was a director of Discovery Park Technology Investments (GP) Limited (and associated investment companies) from September 2016 until July 2018. Martin holds a B.A. in business finance from the University of Kent and qualified as a Chartered Accountant with Arthur Andersen & Co in London in 1977 and became a Fellow of the Institute of Chartered Accountants in England and Wales (ICAEW) in 1986. He was a partner in Arthur Andersen & Co from August 2085, and served in several roles including founder and global managing partner of Arthur Andersen's international corporate finance business, based latterly in New York. He retired from professional practice in 2002 and consequently ceased to be a member of ICAEW in 2004.

Angela Scott (Chief Operating Officer)

Angela Scott has served as our Chief Operating Officer since January 2014 and as a board member since December 2018. Prior to this Ms Scott was Director of Operations at Angel Biotechnology plc from 2005 to 2012 where she transitioned several cell therapies into clinical trials which included first in man stem cell product for the treatment of stroke. From 2003 to 2004, she served as Development Manager for Cell Culture and Diagnostics at Excell Biotechnology. Prior to this, she served as Senior Research Associate, from 1992 to 2003, at PPL Therapeutics, where she was part of the team that cloned 'Dolly the sheep'. Ms Scott held roles with increasing responsibility with Imperial Cancer Research Fund from 1981 to 1992. She has acted as an advisory board member of both the ATMP Manufacturing Community and Scottish Stemcell Network.

Ms Scott has a B.Sc. in Biological Sciences from Napier University, Edinburgh.

Dr Alan Clark (Chief Technical Officer)

Alan Clark. Ph.D. has served as Chief Technical Officer since February 2020. Prior to this Dr. Clark has acted as non-executive director from July 2016 becoming chairman from January 2018 to February 2020. Prior to joining the company as Chief Technical Officer ran a consultancy business from 2008 called Theraldia Consulting Limited which provides advisory services to a range of life science businesses in areas such as strategy, due diligence and licensing. Prior to this, Dr. Clark served as a team leader with Organon from 1999 to 2005 as part of Lead Discovery and Lead Optimisation work where Dr. Clark was involved with progressing development candidates to clinical trials. Dr. Clark has served as a non-executive director of Luperacus Limited since June 2016. He was a director of Biocaptiva Limited from September 2018 until June 2020. He was a director of ILC Therapeutics Limited from December 2016 until May 2019. Dr. Clark holds a B.Sc. in Biochemistry from Heriot-Watt University, Edinburgh and a Ph.D. in Biochemistry in association with the University of Edinburgh.

Dorothy Lister (Senior Director of Operations)

Dorothy Lister currently serves as Senior Director of Operations having joined the business in April 2014 as Head of Operations. Prior to joining the Company, Ms Lister was Senior Project Manager at Catalent Pharma Solutions with responsibility for the leadership and management of large multi service or complex clinical supply programmes. Prior to this Ms Lister has held various roles of increasing responsibility providing operational leadership and project management within the biotechnology sector including working as Operations Manager for BioReliance from 1990 to 2009 managing teams of over 80 people.

Toby Rintoul (Senior Director of Finance)

Toby Rintoul serves as Senior Director of Finance having joined the Company from May 2018. Prior to joining the Company, worked with professional accounting firm Johnston Carmichael from 2009 until 2018 While at Johnston Carmichael, he held roles of increasing responsibility, latterly as a partner and worked with high growth technology companies with a focus on the life science sector. He trained in audit in London with BDO where he qualified as chartered accountant and member of the Institute of Chartered Accountants in England and Wales.

Dr Sebastian Wanless (Senior Clinical Director)

Sebastian Wanless, Ph.D., has served as Senior Clinical Director since September 2020. In addition to joining the Company, Dr. Wanless leads specialist clinical research consultancy Creative Monitoring LLC (founded by Dr. Wanless in June 2011). Prior to this he was Associate Professor Pediatric Retrovirology and V.P. BIPAI Research & Program Evaluation, Baylor International (Pediatric AIDS Initiative) from 2007 to 2011 where he provided oversight of all research activities throughout the BIPAI network. Prior to this he served as Senior Medical Director at the "Secure the Future" Bristol-Myers Squibb Foundation from 2003 to 2007. Dr. Wanless held increasingly senior roles at Bristol-Myers Squibb from 1986 to 2001 latterly as Vice-President Intercontinental R&D.

Non-Executive Persons

[As part of the planned reorganization, the non-executive directors in TC BioPharm Limited have agreed to retire from the board. The business will provide further details about the appointment of non-executive directors for TC BioPharm (Holdings) plc in a future amendment.]

Family Relationships

Other than Mr. Michael Leek and Ms. Angela Scott who are married, there are no family relationships among any of the members of our senior management or board of directors.

Corporate Governance Practices

We are a "foreign private issuer," as defined by the SEC. As a result, in accordance with Nasdaq listing requirements, we will comply with home country governance requirements and certain exemptions thereunder rather than complying with Nasdaq corporate governance standards. While we voluntarily follow many Nasdaq corporate governance rules, we may choose to take advantage of the following limited exemptions:

- Scottish law does not require that a majority of our board of directors consist of independent directors or that our board committees consist of entirely independent directors. Our board of directors and board committees, therefore, may include fewer independent directors than would be required if we were subject to Nasdaq Listing Rule 5605(b) (1). In addition, we will not be subject to Nasdaq Listing Rule 5605(b)(2), which requires that independent directors must regularly have scheduled meetings at which only independent directors are present.

- Exemption from the requirement to have a nominations committee of the board of directors.

- Exemption from quorum requirements applicable to meetings of shareholders. Such quorum requirements are not required under Scottish 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.

- Exemption from the Nasdaq rules applicable to domestic issuers requiring disclosure within four business days of any determination to grant a waiver of the code of business conduct and ethics to directors and officers. Although we will require board approval of any such waiver, we may choose not to disclose the waiver in the manner set forth in the Nasdaq rules, as permitted by the foreign private issuer exemption.

- Exemption from the requirement to obtain shareholder approval for certain issuances of securities, including shareholder approval of share option plans.

We intend to follow our home country, Scotland, practices in lieu of the foregoing requirements. Although we may rely on home country corporate governance practices in lieu of certain of the rules in the Nasdaq Rule 5600 Series and Rule 5250(d), we must comply with Nasdaq's Notification of Noncompliance requirement (Rule 5625) and the Voting Rights requirement (Rule 5640). Further, we must have an audit committee that satisfies Nasdaq Rule 5605(c)(3), which addresses audit committee responsibilities and authority and requires that the audit committee consist of members who meet the independence requirements of Nasdaq Rule 5605(c)(2)(A)(ii).

Although we currently intend to comply with the Nasdaq corporate governance rules applicable other than as noted above, we may in the future decide to use the foreign private issuer exemption with respect to some or all the other Nasdaq corporate governance rules.

In addition, as a foreign private issuer, we will not be subject to certain SEC reporting obligations:

- Filing quarterly reports on Form 10-Q or provide current reports on Form 8-K disclosing significant events within four days of their occurrence;

- The rules and regulations governing proxy solicitations of the SEC;

- Regulation FD, which governs certain disclosure obligations of a reporting company which may be selective; and
- Our stockholders will be exempt from Section 16 rules regarding sales of our securities by insiders, which will provide less data in this regard than shareholders of U.S. companies that are subject to the Exchange Act.

Accordingly, our shareholders will not have the same protections afforded to shareholders of companies that are subject to all of the corporate governance requirements of Nasdaq and the domestic reporting requirements of the SEC. We may utilize these exemptions for as long as we continue to qualify as a foreign private issuer.

Composition of Our Board of Directors

Our board of directors will be composed of _____ members upon the closing of this offering. 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, subject to certain phase-in schedules. However, our board of directors has determined that _____ representing ____ of the _____ directors who will be serving upon the closing of this offering, 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.

Committees of Our Board of Directors

Our board of directors has two standing committees: an audit committee and a remuneration committee.

Audit Committee

The audit committee, which as of the closing of this offering will consist of _____ (chair), _____, 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 _____ 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 will meet at least regularly each year and oversee and review our internal controls, accounting policies and financial reporting, and provide a forum through which our independent registered public accounting firm reports. Our audit committee also will meet regularly with our independent registered public accounting firm without management present. The audit committee will be governed by a charter that complies with Nasdaq rules.

The audit committee's responsibilities will include:

- recommending the appointment of the independent auditor to 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 on at least an annual basis;
- 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

As of the closing of this offering, the remuneration committee will consist of ____ (chairman), ____. Under SEC and Nasdaq rules, there are heightened independence standards for members of the remuneration committee, including a prohibition against the receipt of any compensation from us other than standard board member fees. The remuneration committee will be governed by a charter that complies with Nasdaq rules. Although foreign private issuers are not required to meet this heightened standard, all of our remuneration committee members are expected to meet this heightened standard.

The remuneration committee's responsibilities will include:

- identifying, reviewing 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 employee share option scheme or equity incentive plans in operation from time to time.

Code of Business Conduct and Ethics

In connection with this offering, we will adopt a Code of Business Conduct and Ethics, or Code of Ethics, applicable to our employees, senior management and directors, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Following the effectiveness of the registration statement of which this prospectus is a part, a current copy of the Code of Ethics will be posted on our website, which is located at www.tcbiopharm.com. Information contained on, or that can be accessed through, our website does not constitute a part of this prospectus and is not incorporated by reference herein.

Compensation of Senior Management and Directors

For the year ended December 31, 2020, the aggregate compensation accrued or paid to the members of our board of directors and our senior management for services in all capacities, including defined contribution pensions and share-based compensation, was £1.8 million.

Senior Management Employment Arrangements and Service Agreements

Prior to the completion of this offering, we intend to enter into employment agreements in replacement of their current employment agreements with certain of our senior management persons and adopt a new equity awards program under appropriate new awards may be granted..

Non-Executive Director Appointment Letters

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, or will be entered into, appointment letters with our non-executive directors.

Equity Incentive Plans

TC BioPharm Limited has operated a staff option plan, which has been approved for the purposes of providing certain taxation benefits to option holders upon exercise of their options. This plan is open to all full-time employees, directors and certain consultants and part time employees. It is managed by the board of directors and all grants of option and conditions of grant (including vesting periods and conditions and exercise price and period of option grant) are approved by the chief executive officer, chief operating officer and chief financial officer; or, in the case of awards to directors by the remuneration committee of the board. The Company's shareholders have approved, from time to time, the number of ordinary shares over which options may be granted in accordance with the Articles of Association and relevant shareholders agreements. At June 30, 2021, the plan provided for up to 534,179 ordinary shares available for award, of which 532,923 options to purchase shares under the plan have been granted and all of which have vested. A further 1,256 options have been approved by the shareholders to be awarded under the plan, but they have not been awarded as of June 30, 2021. Under the terms of our planned Corporation Reorganization the existing share option plan is expected to terminate as to any further awards. The issued and outstanding awards will continue under their current terms. It is expected that a new plan will be adopted with the approval, as required, by our shareholders.

Insurance and Indemnification

To the extent permitted by the Companies Act 2006 (the Companies Act), we are empowered to indemnify our directors against any liability they incur by reason of their directorship. We maintain directors' and officers' insurance to insure such persons against certain liabilities. We expect to enter into a deed of indemnity with each of our directors and members of our senior management prior to the completion of this offering.

Insofar as indemnification of liabilities arising under the Securities Act may be permitted to our board of directors, senior management, or persons controlling us pursuant to the foregoing provisions, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

RELATED PARTY TRANSACTIONS

The following is a description of related party transactions we have entered into since January 1, 2019, with any members of our board of directors, executive officers or the holders of more than 5% of our share capital.

During the years ended December 31, 2019 and 2020, the Company made purchases of cell culture media from Cell Science & Technology Institute, Inc., a company in which significant shareholder NIPRO Corporation (Osaka, Japan), has a significant interest in the amount of £79,826 and £30,775 respectively.

During the years ended December 31, 2019 and 2020, the Company used consultancy services from Theraldia Consulting Limited a company in which Dr Alan Clark has a significant interest in the amount of £13,068 and £22,621 respectively.

During the years ended December 31, 2019 and 2020, the Company used consultancy services from Dr Alan Clark to the amount of £31,784 and £Nil, respectively.

During the year ended December 31, 2020, the executive directors agreed to defer a proportion of their compensation. Repayment of deferred compensation will be made on receipt of an agreed level of funding to support the future capital requirements of the business and payment will be made equally in monthly amounts over twelve months. As at December 31, 2020 the balance outstanding to executive directors totalled £253,338.

Subscriptions in our A Ordinary shares

On August 25, 2020, we issued and sold 34,883 A ordinary shares to Scottish Enterprise, a shareholder with more than 5% of our share capital.

Agreements with Our Senior Management and Directors

We have entered into service agreements with the members of our senior management. These agreements contain customary provisions and representations, including confidentiality, notice period (typically 6-12 months), non-competition, non-solicitation and inventions assignment undertakings by the members of our senior management. However, the enforceability of the non-competition provisions may be limited under applicable law. Prior to the completion of this offering, we intend to replace these agreements with new employment arrangements and equity related awards.

Indemnification Agreements

We will enter into a deed of indemnity with each of our directors and members of our senior management prior to the completion of this offering. Our Articles of Association to be adopted in connection with this offering will also provide that we will indemnify our directors and members of our senior management to the fullest extent permitted by law.

Related Party Transactions Policy

Prior to the completion of this offering, we intend to adopt a related party transaction policy, which will be administered by the audit committee of the board of directors.

BENEFICIAL OWNERSHIP OF PRINCIPAL SHAREHOLDERS AND MANAGEMENT

The following table sets forth information regarding beneficial ownership of our Ordinary Shares (treating all classes as if they were one class for this purpose as they all carry equal voting rights) as of the date of this prospectus by:

- each person, or group of affiliated persons, known to us to be the beneficial owner of more than 5% of our issued and outstanding ordinary shares;
- each of our directors and executive officers; and
- all of the foregoing as a group.

Beneficial ownership is determined in accordance with the rules of the SEC, and includes voting or investment power with respect to ordinary shares. Ordinary shares issuable under share options or warrants that are exercisable within 60 days after _____, 2021, are deemed issued and outstanding for the purpose of computing the percentage ownership of the person holding the options or warrants but are not deemed issued and outstanding for the purpose of computing the percentage ownership of any other person. Percentage of shares beneficially owned before this offering is based on 1,954,759 ordinary shares issued and outstanding as of September 17, 2021 by reference to our share register, which provides us with information regarding the registered holders of our ordinary shares but generally provides limited, or no, information regarding the ultimate beneficial owners of such ordinary shares. Based on our share register and other information made available to us by certain of our shareholders, as of September 17, 2021, 10,506 ordinary shares, representing 0.54% of our issued and outstanding ordinary shares, were held by _____ U.S. record holders. The number of Ordinary Shares deemed issued and outstanding after this offering is based on ordinary shares issued and outstanding after the company reorganization, which includes the ordinary shares offered hereby, but it assumes no exercise of the underwriter's over-allotment option.

We are not controlled by another corporation, by any foreign government or by any natural or legal persons except as set forth herein, and here are no arrangements known to us which would result in a change in control of our company at a subsequent date. Except as indicated in footnotes to this table, we believe that the shareholders named in this table have sole voting and investment power with respect to all shares shown to be beneficially owned by them, based on information provided to us by such shareholders.

Unless otherwise noted below, each beneficial owner's address is: c/o Maxim 1, 2 Parklands Way, Holytown, Motherwell, ML1 4WR, Scotland, United Kingdom.

	No. of Ordinary Shares Beneficially Owned Prior to this Offering	Percentage Owned Before this Offering	Percentage Owned After this Offering
Holders of more than 5% of our voting securities:			
Scottish Enterprise (1)			
MEDINET Co., Ltd (2)			
NIPRO Corporation (3)			
Neil Fell (4)			
Athol Haas (5)			
Directors and executive officers who are not 5% holders:			
Angela Scott (6)			
Dr Michael Leek (7) (*)			
Bryan Kobel			
Martin Thorp (8)			
Dr, Alan Clark (9)			
Dorothy Lister (10)			
Toby Rintoul (11)			
Dr. Sebastian Wanless (12)			
Kimihito Minoura (13)			
Lorraine Porter (14)			
All directors and officers as a group (15)			
Total			

(*) Indicates a director of the TC BioPharm (Holdings) Limited.

(1) The address of Scottish Enterprise, an agency of the Scottish government, is ____. The board of directors of the stockholder exercises the voting and dispositive authority over the shares held by this stockholder.

(2) The address of Medinet Co., Ltd. is ____. The board of directors of the stockholder exercises the voting and dispositive authority over the shares held by this stockholder.

(3) The address of NIPRO Corporation is ____. The board of directors of the stockholder exercises the voting and dispositive authority over the shares held by this stockholder. Mr. Kimihito Minoura is a designee director of this stockholder.

(4) The address of Neil Fell is _____.

(5) The address of Athol Haas is _____.

(6) Does not include ____ ordinary shares that may be acquired under outstanding options and warrants. Ms Scott is the spouse of Dr. Michael Leek, however, her financial affairs historically have been handled separately from those of Dr. Leek, and therefore her shareholding is not combined for purposes of this table.

(7) Does not include ___ ordinary shares that may be acquired under outstanding options and warrants. Dr. Leek, is the spouse of Ms. Angela Scott, however, his financial affairs historically have been handled separately from those of Ms. Scott, and therefore his shareholding is not combined for purposes of this table.

(8) Does not include ___ ordinary shares that may be acquired under outstanding options and warrants.

(9) Does not include ___ ordinary shares that may be acquired under outstanding options and warrants.

(10) Does not include ___ ordinary shares that may be acquired under outstanding options and warrants.

(11) Does not include ___ ordinary shares that may be acquired under outstanding options and warrants.

(12) Does not include ___ ordinary shares that may be acquired under outstanding options and warrants.

(13) Includes the shares held by NIPRO Corporation, over which the board of directors has voting and dispositive authority.

(14)

(15) Does not include ____ ordinary shares that may be acquired under outstanding options and warrants by each of the individuals included in the group.

Record Holders

Based upon a review of the information provided to us by our transfer agent, as of _____, 2021, there were a total of _____ holders of record of our shares.

Transfer Agent and Registrar

The transfer agent and registrar for our ordinary shares is _____.

Nasdaq Global Market Listing

We intend to apply to list our ordinary shares The Nasdaq Global Market under the trading symbol "_____." No assurance can be given that our application will be accepted.

DESCRIPTION OF SHARE CAPITAL AND ARTICLES OF ASSOCIATION

The following describes our issued share capital, summarizes the material provisions of our articles of association and highlights certain differences in corporate law in Scotland and the United States. Please note that this summary is not intended to be exhaustive. For further information, please refer to the full version of our articles of association, which are included as an exhibit to the registration statement of which this prospectus is a part.

We currently are a private company with limited liability incorporated pursuant to the laws of Scotland on July 5, 2021 as TC BioPharm (Holdings) Limited. We were incorporated for the purpose of becoming the holding of TC BioPharm Limited and for the purpose of consummating the corporate reorganization described herein. TC BioPharm Limited was incorporated as a separate company on July 1, 2013.

TC BioPharm (Holdings) plc will be a holding company which has not or will not have conducted any operations prior to this offering other than activities incidental to their formation, the corporate reorganization and this offering.

Pursuant to the terms of our corporate reorganization, which will be completed prior to the completion of this offering, TC BioPharm (Holdings) Limited will acquire the entire issued share capital of TC BioPharm Limited will be reregistered as a public limited company with the name TC BioPharm (Holdings) plc. See "Corporate Reorganization" for more information.

We are registered with the Registrar of Companies in Scotland under number SC703419 , and our registered office is at Maxim 1, 2 Parklands Way, Holytown, Motherwell, Lanarkshire, Scotland ML1 4WR.

Following the corporate reorganization, certain ordinary and special resolutions will be required to be passed by our shareholders prior to the completion of this offering. These will include resolutions for the:

- adoption of new articles of association that will become effective upon the completion of this offering. See "—Post-IPO Articles of Association" and;
- general authorization of our directors for purposes of Section 551 of the Companies Act to allot shares in the company and grant rights to subscribe for or convert any securities into shares in the company up to a maximum aggregate nominal amount of £ for a period of years; and
- empowering of our directors pursuant to Section 570 of Companies Act to issue equity securities for cash pursuant to the Section 551 authority referred to above as if the statutory preemption rights under Section 561(1) of the Companies Act did not apply to such allotments.

Current Authorized and Issued Share Capital

As of July _____, 2021, TC BioPharm Limited had authorized share capital of 1,781,301 Ordinary shares of £1 each and 173,458 A Ordinary shares of £0.001 each all of which were issued fully paid and outstanding. The nominal value of each A Ordinary shares is £1.00 per share and each issued share is fully paid.

Immediately following the share exchange between the shareholders of TC BioPharm Limited and TC BioPharm (Holdings) Limited as part of our corporate reorganization, the issued share capital of TC BioPharm (Holdings) Limited will mirror the issued share capital of TC BioPharm Limited. Following the conversion of each of the different classes of share in TC BioPharm (Holdings) Limited into ordinary shares as part of our corporate reorganization and this offering, our issued share capital will be ordinary shares.

When TC BioPharm (Holdings) Limited is re-registered as a public limited company, subject to the approval of the shareholders of TC BioPharm (Holdings) Limited, the capital structure will be changed with the objective of there being only ordinary shares available for issuance and all the outstanding securities of TC BioPharm (Holdings) Limited will convert into ordinary shares. Additionally, outstanding options, warrants and convertible securities will be exercisable or convertible into the ordinary shares of TC BioPharm (Holdings) PLC.

Current Ordinary Shares

In accordance with our Articles of Association to be in effect upon the completion of this offering, the following summarizes the rights of holders of our ordinary shares:

- each holder of our ordinary shares is entitled to one vote per ordinary share on all matters to be voted on by shareholders generally;
- the holders of the ordinary shares shall be entitled to receive notice of, attend, speak and vote at our general meetings; and
- holders of our ordinary shares are entitled to receive such dividends as are recommended by our directors and declared by our shareholders.

Current Registered Shares

We are required by the Companies Act to keep a register of our shareholders. Under Scottish law, the ordinary shares are deemed to be issued when the name of the shareholder is entered in our register of members. The register of members therefore is prima facie evidence of the identity of our shareholders, and the shares that they hold. The register of members generally provides limited, or no, information regarding the ultimate beneficial owners of our ordinary shares. Our register of members is maintained by our registrar, .

Under the Companies Act, we must enter an allotment of shares in our register of members as soon as practicable and in any event within two months of the allotment. We will perform all procedures necessary to update the register of members to reflect the ordinary shares being allotted and issued in this offering. We also are required by the

Companies Act to register a transfer of shares (or give the transferee notice of and reasons for refusal as the transferee may reasonably request) as soon as practicable and in any event within two months of receiving notice of the transfer.

We, any of our shareholders or any other affected person may apply to the court for rectification of the register of members if:

- the name of any person, without sufficient cause, is wrongly entered in or omitted from our register of members; or
- there is a default or unnecessary delay in entering on the register the fact of any person having ceased to be a member or on which we have a lien, provided that such delay does not prevent dealings in the shares taking place on an open and proper basis.

Current Preemptive Rights

Scottish law generally provides shareholders with statutory preemptive rights when new shares are issued for cash; however, it is possible for the articles of association, or shareholders by way of a special resolution at a general meeting, 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 of association, if the disapplication is contained in the articles of association, 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). On , our shareholders approved the disapplication of preemptive rights for a period of five years from the date of approval, 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). On , our shareholders approved the disapplication of preemptive rights for the allotment of ordinary shares in connection with this offering.

Current Right to Purchase of Own Shares

Scottish law permits a public limited company to purchase its own shares out of the distributable profits of the company or the proceeds of a fresh issue of shares made for the purpose of financing the purchase, subject to complying with procedural requirements under the Companies Act and provided that its articles of association do not prohibit it from doing so. Our Articles of Association, a summary of which is provided below, do not prohibit us from purchasing our own shares. A public limited company must not purchase its own shares if, as a result of the purchase, there would no longer be any issued shares of the company other than redeemable shares or shares held as treasury shares.

Any such purchase will be either a "market purchase" or "off market purchase," each as defined in the Companies Act. A "market purchase" is a purchase made on a "recognized investment exchange" (other than an overseas exchange) as defined in the UK Financial Services and Markets Act 2000, or FSMA. An "off market purchase" is a purchase that is not made on a "recognized investment exchange." Both "market purchases" and "off market purchases" require prior shareholder approval by way of an ordinary resolution. In the case of an "off market purchase," a company's shareholders, other than the shareholders from whom the company is purchasing shares, must approve the terms of the contract to purchase shares and in the case of a "market purchase," the shareholders must approve the maximum number of shares that can be purchased and the maximum and minimum prices to be paid by the company.

The Nasdaq Global Market is an "overseas exchange" for the purposes of the Companies Act and does not fall within the definition of a "recognized investment exchange" for the purposes of FSMA and any purchase made by us would need to comply with the procedural requirements under the Companies Act that regulate "off market purchases."

Current Rules for Distributions and Dividends

Under the Companies Act, before a company can lawfully make a distribution or dividend, it must ensure that it has sufficient distributable reserves, as determined on a non-consolidated basis. The basic rule is that a company's profits available for the purpose of making a distribution are its accumulated, realized profits, so far as not previously utilized by distribution or capitalization, less its accumulated, realized losses, so far as not previously written off in a reduction or reorganization of capital duly made. The requirement to have sufficient distributable reserves before a distribution or dividend can be paid applies to us and to each of our subsidiaries that has been incorporated under Scottish law.

Once we are a public company, it will not be sufficient that we have made a distributable profit for the purpose of making a distribution. An additional capital maintenance requirement will be imposed on us to ensure that the net worth of the company is at least equal to the amount of its capital. A public company can only make a distribution:

- if, at the time that the distribution is made, the amount of its net assets (that is, the total excess of assets over liabilities) is not less than the total of its called up share capital and undistributable reserves; and
- if, and to the extent that, the distribution itself, at the time that it is made, does not reduce the amount of its net assets to less than that total.

Current Disclosure of Interest in Shares

Pursuant to Part 22 of the Companies Act, we are empowered by notice in writing to any person whom we know or have reasonable cause to believe to be interested in our shares, or at any time during the three years immediately preceding the date on which the notice is issued has been so interested, within a reasonable time to disclose to us particulars of that person's interest and, so far as is within his or her knowledge, particulars of any other interest that subsists or subsisted in those shares.

Under our Articles of Association, if a person defaults in supplying us with the required particulars in relation to the shares in question, or default shares within the prescribed period, our board of directors may by notice direct that:

- in respect of the default shares, the relevant shareholder shall not be entitled to attend or vote, either in person or by proxy, at any general meeting or of a general meeting of the holders of a class of shares or upon any poll or to exercise any right conferred by the default shares;
- where the default shares represent at least 0.25% of their class, (a) any dividend or other money payable in respect of the default shares shall be retained by us without liability to pay interest, and/or (b) no transfers by the relevant shareholder of any default shares may be registered, unless the shareholder himself or herself is not in default and the shareholder proves to the satisfaction of the board of directors that no person in default as regards to supplying such information is interested in any of the default shares; and/or
- any shares held by the relevant shareholder in uncertificated form shall be converted into certificated form.

Post-IPO Articles of Association

Our Articles were adopted by a special resolution of the founder shareholder passed on , 2021. A summary of the terms of the Articles of Association is set out below. The summary below is not a complete copy of the terms of the Articles of Association.

The Articles of Association contain no specific restrictions on our purpose and therefore, by virtue of section 31(1) of the Companies Act, our purpose is unrestricted.

The Articles contain, among other things, provisions to the following effect:

Share Capital

Our share capital currently consists of ordinary shares. We may issue shares with such rights or restrictions as may be determined by ordinary resolution, 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.

Voting

The shareholders have the right to receive notice of, and to vote at, our general meetings. Each shareholder who is present in person (or, being a corporation, by representative) at a general meeting on a show of hands has one vote and, on a poll, every such holder who is present in person (or, being a corporation, by representative) or by proxy has one vote in respect of every share held by him.

Variation of Rights

Whenever our share capital is divided into different classes of shares, the special rights attached to any class may be varied or abrogated either with the consent in writing of the holders of three-fourths in nominal value of the issued shares of that class or with the sanction 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 the company is a going concern.

Dividends

We may, subject to the provisions of the Companies Act and the Articles of Association, by ordinary resolution from time to time declare dividends to be paid to shareholders not exceeding the amount recommended by our board of directors. Subject to the provisions of the Companies Act, in the discretion of board of directors, our profits justify such payments, the board of directors may pay interim dividends on any class of our shares.

Any dividend unclaimed after a period of 12 years from the date such dividend was declared or became payable shall, if the board of directors resolve, be forfeited and shall revert to us. No dividend or other moneys payable on or in respect of a share shall bear interest as against us.

Transfer of Ordinary Shares

Each member 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 the board of directors may approve.

The board of directors may, in its absolute discretion, refuse to register a transfer of certificated shares unless:

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

(ii) it is for a share upon which the company has 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 the board of directors to be exempt from stamp duty; and

(vi) it is delivered for registration to the registered office of the company (or such other place as the board of directors 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 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 him or, if the transfer or renunciation is executed by some other person on his behalf, the authority of that person to do so.

Allotment of Shares and Preemption Rights

Subject to the Companies Act 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 of directors may determine (including shares which are to be redeemed, or are liable to be redeemed at the option of the company or the holder of such shares).

In accordance with section 551 of the Companies Act, the board of directors may be generally and unconditionally authorized to exercise all the powers of the company to allot shares up to an aggregate nominal amount equal to the amount stated in the relevant ordinary resolution authorizing such allotment. The authorities referred to above were included in the ordinary resolutions passed on , 2021 and remain in force at the date of this prospectus.

The provisions of section 561 of the Companies Act (which confer on shareholders rights of preemption in respect of the allotment of equity securities which are paid up in cash) apply to the company except to the extent disapplied by special resolution of the shareholders of the company. Such preemption rights have been disapplied by a special resolution passed on , 2021.

Alteration of Share Capital

The company may by ordinary resolution consolidate its share capital into shares of larger nominal value than its existing shares, or cancel any shares which, at the date of the ordinary resolution, have not been taken or agreed to be taken by any person and diminish the amount of its share capital by the nominal amount of shares so canceled or sub-divide its shares, or any of them, into shares of smaller nominal value.

The company may, in accordance with the Companies Act, reduce or cancel its share capital or any capital redemption reserve or share premium account in any manner and with and subject to any conditions, authorities and consents required by law.

Board of Directors

Unless otherwise determined by the company by ordinary resolution, the number of directors (other than any alternate directors) shall not be less than two, but there

shall be no maximum number of directors.

Subject to the Articles of Association and the Companies Act, the company may by ordinary resolution appoint a person who is willing to act as a director and the board of directors shall have power at any time to appoint any person who is willing to act as a director, in both cases either to fill a vacancy or as an addition to the existing board of directors.

Our Articles of Association provide that upon completion of this offering, our board of directors will be divided into three classes, each of which will consist, as nearly as possible, of one-third of the total number of directors constituting our entire board and which will serve staggered three-year terms. At each annual general meeting, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election.

At every subsequent annual general meeting, any director who either (i) has been appointed by the board of directors since the last annual general meeting or (ii) was not appointed or reappointed at one of the preceding two annual general meetings, must retire from office and may offer themselves for reappointment by the shareholders by ordinary resolution.

Subject to the provisions of the Articles of Association, the board of directors may regulate their proceedings as they deem appropriate. A director may, and the secretary at the request of a director shall, call a meeting of the directors.

The quorum for a meeting of the board of directors shall be fixed from time to time by a decision of the board of directors, but it must never be less than two and unless otherwise fixed, it is two.

Questions and matters requiring resolution arising at a meeting shall be decided by a majority of votes of the participating directors, with each director having one vote. In the case of an equality of votes, the chairman will have a casting vote or second vote.

Directors shall be entitled to receive such compensation as the board shall determine for their services to the company as directors, and for any other service which they undertake for the company provided that the aggregate fees payable to the directors must not exceed per annum. The directors shall also be entitled to be paid all reasonable expenses properly incurred by them in connection with their attendance at meetings of shareholders or class meetings, board of director or committee meetings or otherwise in connection with the exercise of their powers and the discharge of their responsibilities in relation to the company.

The board of directors may, in accordance with the requirements in the Articles of Association, authorize any matter proposed to them by any director which would, if not authorized, involve a director breaching his duty under the Companies Act, to avoid conflicts of interests.

A director seeking authorization in respect of such conflict shall declare to the board of directors the nature and extent of his interest in a conflict 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 together with such additional information as may be requested by the board.

Any authorization by the board of directors will be effective only if:

(i) to the extent permitted by the Companies 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 the Articles;

(ii) any requirement as to the quorum for consideration of the relevant matter is met without counting the conflicted director and any other conflicted director; and

(iii) the matter is agreed to without the conflicted director voting or would be agreed to if the conflicted director's and any other interested director's vote is not counted.

Subject to the provisions of the Companies Act, every director, secretary or other officer of the company (other than an auditor) is entitled to be indemnified against all costs, charges, losses, damages and liabilities incurred by him in the actual purported exercise or discharge of his duties or exercise of his powers or otherwise in relation to them.

General Meetings

The company must convene and hold annual general meetings in accordance with the Companies Act. Under the Companies Act, an annual general meeting must be called by notice of at least 21 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 chairman of the meeting which shall not be treated as part of the business of the meeting. Unless otherwise provided by the Articles of Association, two shareholders present in person or by proxy and entitled to vote shall be a quorum for all purposes.

(i) Borrowing Powers

Subject to the Articles of Association and the Companies Act, the board of directors may exercise all of the powers of the company 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 debt, liability or obligation of the company or of any third party.

(ii) Capitalization of profits

The directors may, if they are so authorized by an ordinary resolution of the shareholders, decide to capitalize any undivided profits of the company (whether or not they are available for distribution), or any sum standing to the credit of the company's share premium account or capital redemption 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.

(iii) Uncertificated Shares

Subject to the Companies Act, the 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" (*e.g.*, DTC) without a certificate.

The 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.*

The company may by notice to the holder of an uncertificated share, require that share to be converted into certificated form.

The board of directors may take such other action that the board considers appropriate to achieve the sale, transfer, disposal, forfeiture, re-allotment or surrender of an uncertified share or otherwise to enforce a lien in respect of it.

Other Relevant United Kingdom Laws and Regulations

Mandatory Bid

(i) The Takeover Code applies to the company. Under the Takeover Code, where:

a. any person, together with persons acting in concert with him, acquires, whether by a series of transactions over a period of time or not, an interest in shares which (taken together with shares in which he is already interested, and in which persons acting in concert with him are interested) carry 30% or more of the voting rights of a company; or

b. any person who, together with persons acting in concert with him, is interested in shares which in the aggregate carry not less than 30% of the voting rights of a company but does not hold shares carrying more than 50% of such voting rights and such person, or any person acting in concert with him, acquires an interest in any other shares which increases the percentage of shares carrying voting rights in which he is interested;

such person shall, except in limited circumstances, be obliged to extend offers, on the basis set out in Rules 9.3, 9.4 and 9.5 of the Takeover Code, to the holders of any class of equity share capital, whether voting or non-voting, and also to the holders of any other class of transferable securities carrying voting rights. Offers for different classes of equity share capital must be comparable; the Takeover Panel should be consulted in advance in such cases.

(ii) An offer under Rule 9 of the Takeover Code must be in cash and at the highest price paid for any interest in the shares by the person required to make an offer or any person acting in concert with him during the 12 months prior to the announcement of the offer.

(iii) Under the Takeover Code, a "concert party" arises where persons acting together pursuant to an agreement or understanding (whether formal or informal and whether or not in writing) actively cooperate, through the acquisition by them of an interest in shares in a company, to obtain or consolidate control of the company. "Control" means holding, or aggregate holdings, of an interest in shares carrying 30% or more of the voting rights of the company, irrespective of whether the holding or holdings give *de facto* control.

Squeeze-out

(i) Under sections 979 to 982 of the Companies Act, if an offeror were to acquire, or unconditionally contract to acquire, not less than 90% in value of the ordinary shares of the company and 90% of the voting rights carried by the ordinary shares of the company, it could then compulsorily acquire the remaining 10%. It would do so by sending a notice to outstanding shareholders telling them that it will compulsorily acquire their shares, provided

that no such notice may be served after the end of: (a) the period of three months beginning with the day after the last day on which the offer can be accepted; or (b) if earlier, and the offer is not one to which section 943(1) of the Companies Act applies, the period of six months beginning with the date of the offer.

(ii) Six weeks following service of the notice, the offeror must send a copy of it to the company together with the consideration for the ordinary shares to which the notice relates, and an instrument of transfer executed on behalf of the outstanding shareholder(s) by a person appointed by the offeror.

(iii) The company will hold the consideration on trust for the outstanding shareholders.

Sell-out

(i) Sections 983 to 985 of the Companies Act also give minority shareholders in the company a right to be bought out in certain circumstances by an offeror who has made a takeover offer. If a takeover offer relating to all the ordinary shares of the company is made at any time before the end of the period within which the offer could be accepted and the offeror held or had agreed to acquire not less than 90% of the ordinary shares, any holder of shares to which the offer related who had not accepted the offer could by a written communication to the offeror require it to acquire those shares. The offeror is required to give any shareholder notice of his right to be bought out within one month of that right arising. The offeror may impose a time limit on the rights of minority shareholders to be bought out, but that period cannot end less than three months after the end of the acceptance period, or, if longer a period of three months from the date of the notice.

(ii) If a shareholder exercises his rights, the offeror is bound to acquire those shares on the terms of the offer or on such other terms as may be agreed.

Differences in Corporate Law

The applicable provisions of the Companies Act 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 applicable to us and, for sake of comparison, 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 the laws of Scotland.

	SCOTLAND	DELAWARE
Number of Directors	A public limited company must have at least two directors and the number of directors may be fixed by or in the manner provided in a company's articles of association.	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	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 must also be followed, such as allowing the director to make representations against his or her removal either at the meeting or in writing.	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, stockholders 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 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	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.	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	A public limited company must hold an annual general meeting in each six-month period following the company's annual accounting reference date.	The annual meeting of stockholders shall be held at such place, on such date and at such time as may be designated from time to time by the board of directors or as provided in the certificate of incorporation or by the bylaws.
General Meeting	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 convene a general meeting.	Special meetings of the stockholders may be called by the board of directors or by such person or persons as may be authorized by the certificate of incorporation or by the bylaws.
Notice of General Meetings	At least 21 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, at least 14 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 days' notice. The shareholders of a company 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.	Unless otherwise provided in the certificate of incorporation or bylaws, written notice of any meeting of the stockholders must be given to each stockholder entitled to vote at the meeting not less than ten nor more than 60 days before the date of the meeting and shall specify the place, date, hour and purpose or purposes of the meeting.
Proxy	At any meeting of shareholders, a shareholder may designate another person to attend, speak and vote at the meeting on their behalf by proxy.	At any meeting of stockholders, a stockholder may designate another person to act for such stockholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. A director of may not issue a proxy representing the director's voting rights as a director.
Preemptive Rights	"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.	Stockholders 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	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 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.	If the corporation's charter or certificate of incorporation so provides, the board of directors has the power to authorize the issuance of shares of capital 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	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 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 in connection with any negligence, default, breach of duty or breach of trust in relation to the company of which he is a director is also void except as permitted by the Companies Act, 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 or criminal proceedings in which he is convicted; 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.	A corporation's certificate of incorporation may include a provision eliminating or limiting the personal liability of a director to the corporation and its stockholders for damages arising from a breach of fiduciary duty as a director. However, no provision can limit the liability of a director for: ● any breach of the director's duty of loyalty to the corporation or its stockholders; ● acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law; ● intentional or negligent payment of unlawful dividends or stock purchases or redemptions; or ● any transaction from which the director derives an improper personal benefit.
Voting Rights	Unless a poll is demanded by the shareholders of a company or is required by the chairman of the meeting or the company's articles of association, shareholders shall vote on all resolutions on a show of hands. Under the Companies Act, a poll may be demanded by (i) not fewer than five shareholders having the right to vote on the resolution; (ii) any shareholder(s) representing not less than 10% of the total voting rights of all the shareholders having the right to vote on the resolution (excluding any voting rights attaching to treasury shares); or (iii) any shareholder(s) holding shares in the company conferring a right to vote on the resolution (excluding any voting rights attaching to treasury shares) being shares on which an aggregate sum has been paid up equal to not less than 10% of the total sum paid up on all the shares conferring that right. A company's articles of association may provide more extensive rights for shareholders to call a poll. Under English law, an ordinary resolution is passed on a show of hands if it is approved by a simple majority (more than 50%) of the votes cast by shareholders present (in person or by proxy) and entitled to vote. If a poll is demanded, an ordinary resolution is passed if 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, vote on the resolution. Special resolutions require the affirmative vote of not less than 75% of the votes cast by shareholders present, in person or by proxy, at the meeting.	Unless otherwise provided in the certificate of incorporation, each stockholder is entitled to one vote for each share of capital stock held by such stockholder.
Stockholder Vote on Certain Transactions	The Companies Act 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 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, 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	A director owes various statutory and fiduciary duties to the company, including: ● 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 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; ● to act in accordance with the company's constitution and only exercise his powers for the purposes for which they are conferred; ● to exercise independent judgment; ● to exercise reasonable care, skill and diligence; ● not to accept benefits from a third party conferred by reason of his being a director or doing, or not doing, anything as a director; and ● 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 owe fiduciary duties of care and loyalty to the corporation and to its stockholders. The duty of care generally requires that a director acts in good faith, with the care that an ordinarily prudent person would exercise under similar circumstances. Under this duty, a director must inform himself of all material information reasonably available regarding a significant transaction. The duty of loyalty requires that a director act in a manner that the director reasonably believes to be in the best interests of the corporation. Directors must not use their 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 who take any action designed to defeat a threatened change in control of the corporation. In addition, when the board of directors 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.

Stockholder Litigation	Under Scottish law, generally, the company, rather than its shareholders, is the proper claimant in an action in respect of a wrong done to the company or where there is an irregularity in the company's internal management. Notwithstanding this general position, the Companies Act provides that (i) a court may allow a shareholder to bring a derivative claim (that is, an action in respect of and on behalf of the company) in respect of a cause of action arising from a director's negligence, default, breach of duty or breach of trust and (ii) a shareholder may bring a claim for a court order where the company's affairs have been or are being conducted in a manner that is unfairly prejudicial to some of its shareholders.	A stockholder may initiate a derivative action to enforce a right of a corporation if the corporation fails to enforce the right itself. The complaint must: ● state that the plaintiff was a stockholder at the time of the transaction of which the plaintiff complains or that the plaintiff's shares thereafter devolved on the plaintiff by operation of law; and ● allege with particularity the efforts made by the plaintiff to obtain the action the plaintiff desires from the directors and the reasons for the plaintiff's failure to obtain the action; or ● state the reasons for not making the effort. Additionally, the plaintiff must remain a stockholder through the duration of the derivative suit. The action will not be dismissed or compromised without the approval of the Delaware Court of Chancery.

SHARES ELIGIBLE FOR FUTURE SALE

Sales of substantial amounts of our ordinary shares in the public market, or the perception that such sales could occur, could adversely affect prevailing market prices of our ordinary shares. Upon completion of this offering, we will have _____ ordinary shares issued and outstanding, assuming the underwriter does not exercise its over-allotment option. All of the ordinary shares sold in this offering will be freely transferable without restriction or further registration under the Securities Act by persons other than by our affiliates.

Lock-Up Agreements

We have agreed not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any shares of our ordinary shares or other securities convertible into or exercisable or exchangeable for ordinary shares for a period of one year after the effective date of the registration statement of which this prospectus is a part without the prior written consent of the underwriter.

In addition, our officers, directors and other holders of our ordinary shares outstanding as of the effective date of the registration statement for this offering have agreed not to offer, sell, agree to sell, directly or indirectly, or otherwise dispose of any ordinary shares for a period of [six] months after such effective date (or the Lock-Up Period).

Rule 144

In general, under Rule 144 under the Securities Act as in effect on the date hereof, beginning 90 days after the date hereof, a person who holds restricted ordinary shares (assuming there are any restricted shares) and is not one of our affiliates at any time during the three months preceding a sale, and who has beneficially owned these restricted shares for at least six months, would be entitled to sell an unlimited number of ordinary shares, provided current public information about us is available. In addition, under Rule 144, a person who holds restricted shares in us and is not one of our affiliates at any time during the three months preceding a sale, and who has beneficially owned these restricted shares for at least one year, would be entitled to sell an unlimited number of shares immediately upon the closing of this offering without regard to whether current public information about us is available. Beginning 90 days after the date hereof, our affiliates who have beneficially owned ordinary shares for at least six months will

be entitled to sell within any three-month period a number of shares that does not exceed the greater of:

- 1% of the number of Ordinary Shares then issued and outstanding; or

- the average weekly trading volume of our Ordinary Shares on the Nasdaq Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale; provided that current public information about us is available and the affiliate complies with the manner of sale requirements imposed by Rule 144.

Affiliates are also subject to additional restrictions on the manner of sales under Rule 144 and notice filing requirements. We cannot estimate the number of our ordinary shares that our existing affiliated or non-affiliated shareholders will elect to sell on the Nasdaq Global Market following this offering.

Regulation S

Regulation S under the Securities Act provides that securities owned by any person may be sold without registration in the United States, provided that the sale is effected in an offshore transaction and no directed selling efforts are made in the United States (as these terms are defined in Regulation S), subject to certain other conditions. In general, this means that our ordinary shares may be sold in some manner outside the United States without requiring registration in the United States.

Rule 701

In general, under Rule 701 of the Securities Act as currently in effect, each of our employees, consultants or advisors who purchases our ordinary shares from us in connection with a compensatory share plan or other written agreement executed prior to the completion of this offering is eligible to resell such ordinary shares in reliance on Rule 144, but without compliance with some of the restrictions, including the holding period, contained in Rule 144.

THE DISCUSSION ABOVE IS A GENERAL SUMMARY. IT DOES NOT COVER ALL SHARE TRANSFER RESTRICTION MATTERS THAT MAY BE OF IMPORTANCE TO A PROSPECTIVE INVESTOR. EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN LEGAL ADVISOR REGARDING THE PARTICULAR SECURITIES LAWS AND TRANSFER RESTRICTION CONSEQUENCES OF PURCHASING, HOLDING, AND DISPOSING OF THE ORDINARY SHARES INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAWS.

MATERIAL INCOME TAX CONSIDERATIONS

The following summary contains a description of material U.K. and U.S. federal income tax consequences of the acquisition, ownership and disposition of our ordinary shares. This summary should not be considered a comprehensive description of all the tax considerations that may be relevant to the decision to acquire our ordinary shares.

U.S. Federal Income Taxes

The following is a summary of the material U.S. federal income tax consequences to U.S. Holders (as defined below) of purchasing, owing and disposing of the ordinary shares. This discussion is included for general informational purposes only, does not purport to consider all aspects of U.S. federal income taxation that might be relevant to a U.S. Holder, and does not constitute, and is not, a tax opinion for or tax advice to any particular U.S. Holder of ordinary shares. The summary does not address any U.S. tax matters other than those specifically discussed. The summary is based on the provisions of the U.S. Internal Revenue Code of 1986, as amended (the "**Code**"), existing, temporary and proposed Treasury Regulations issued thereunder, judicial decisions and administrative rulings and pronouncements and other legal authorities, all as of the date hereof and all of which are subject to change, possibly with retroactive effect. Any such change could alter the tax consequences described herein.

The discussion below applies only to U.S Holders as capital assets within the meaning of Section 1221 of the Code (generally, property held for investment), and does not address the tax consequences that may be relevant to U.S. Holders who, in light of their particular circumstances, may be subject to special tax rules, including without limitation:

- insurance companies, tax-exempt organizations, regulated investment companies, real estate investment trusts, brokers or dealers in securities or foreign currencies, banks and other financial institutions, mutual funds, retirement plans, traders in securities that elect to mark to market, certain former U.S. citizens or long-term residents;
- U.S. Holders that are classified for U.S. federal income tax purposes as partnerships and other pass-through entities and investors therein;
- U.S. Holders who hold ordinary shares as part of a hedge, straddle, constructive sale, conversion, or other integrated or risk-reduction transaction, as "qualified small business stock," within the meaning of Section 1202 of the Code or as Section 1244 stock for purposes of the Code;
- U.S. Holders who hold ordinary shares through individual retirement or other tax-deferred accounts;
- U.S. Holders that have a functional currency other than the U.S. dollar;
- U.S. Holders who are subject to the alternative minimum tax provisions of the Code or the tax on net investment income imposed by Section 1411 of the Code;
- U.S. Holders who acquire their ordinary shares pursuant to any employee share option or otherwise as compensation;
- U.S. Holders required to accelerate the recognition of any item of gross income with respect to their ordinary shares as a result of such income being recognized on an applicable financial statement; or
- U.S. Holders who hold or held, directly or indirectly, or are treated as holding or having held under applicable constructive attribution rules, 10% or more of the ordinary shares of TCB, measured by voting power or value.

Any such U.S. Holders should consult their own tax advisors.

For purposes of this discussion, a "U.S. Holder" means a holder of our ordinary shares that is or is treated as, for U.S. federal income tax purposes, (i) an individual 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 thereof or the District of Columbia or any entity treated as such for U.S. federal income tax purposes, (iii) an estate the income of which is subject to U.S. federal income taxation regardless of its source, or (iv) a trust (A) the administration over which a U.S. court exercises primary supervision and all of the substantial decisions of which one or more U.S. persons have the authority to control, or (B) that has a valid election in effect under the applicable Treasury Regulations to be

treated as a U.S. person under the Code.

If a partnership or other pass-through entity (including any entity or arrangement treated as such for purposes of U.S. federal income tax law) holds our ordinary shares, the tax treatment of a partner of such partnership or member of such entity will generally depend upon the status of the partner and the activities of the partnership. Partnerships and other pass-through entities holding our ordinary shares, and any person who is a partner or member of such entities should consult their own tax advisors regarding the tax consequences of purchasing, owning and disposing of the ordinary shares.

Passive Foreign Investment Company Considerations

A U.S. corporation, such as TCB, will be classified as a passive foreign investment company, or PFIC, for U.S. federal income tax purposes, if, in the case of any particular taxable year, either (i) 75% or more of its gross income for such taxable year consists of certain types of "passive" income or (ii) 50% or more of the value of its assets (based on an average of the quarterly values of the assets) during such taxable year is attributable to assets that produce or are held for the production of passive income. For this purpose, cash is categorized as a passive asset and the company's un-booked intangibles associated with active business activities may generally be classified as active assets. Passive income generally includes, among other things, dividends, interest, rents, royalties, and gains from the disposition of passive assets. For this purpose, a foreign corporation will be treated as owning its proportionate share of the assets and earning its proportionate share of the income of any other non-U.S. corporation in which it owns, directly or indirectly, more than 25% (by value) of the stock.

Based upon its current income and assets and projections as to the value of the ordinary shares, it is not presently expected that TCB will be classified as a PFIC for the 2021 taxable year or the foreseeable future.

The determination of whether TCB will be or become a PFIC will depend upon the composition of its income (which may differ from TCB's historical results and current projections) and assets and the value of its assets from time to time, including, in particular the value of its goodwill and other unbooked intangibles (which may depend upon the market value of the ordinary shares from time to time and may be volatile). Among other matters, if our market capitalization is less than anticipated or subsequently declines, we may be classified as a PFIC for the taxable year in the 2021 taxable year or future taxable years. It is also possible that the IRS may challenge the classification or valuation of TCB's assets, including its goodwill and other unbooked intangibles, or the classification of certain amounts received by TCB, including interest earnings, which may result in TCB being, or becoming classified as, a PFIC for the taxable year in 2021 or future taxable years.

The determination of whether TCB will be or become a PFIC may also depend, in part, on how, and how quickly, it uses liquid assets and the cash proceeds of this offering or otherwise. If TCB were to retain significant amounts of liquid assets, including cash, the risk of TCB being classified as a PFIC may substantially increase. Because there are uncertainties in the application of the relevant rules and PFIC status is a factual determination made annually after the close of each taxable year, there can be no assurance that TCB will not be a PFIC for the 2021 taxable year or any future taxable year, and no opinion of counsel has or will be provided regarding the classification of TCB as a PFIC. If TCB were classified as a PFIC for any year during which a holder held TCB ordinary shares, it generally would continue to be treated as a PFIC for all succeeding years during which such holder held the ordinary shares. The discussion below under "—Dividends Paid on Ordinary Shares" and "—Sale or Other Disposition of Ordinary Shares" is written on the basis that TCB will not be classified as a PFIC for U.S. federal income tax purposes.

Dividends Paid on Ordinary Shares

Subject to the PFIC rules described below, any cash distributions (including constructive distributions) paid on the ordinary shares out of TCB's current or accumulated earnings and profits, as determined under U.S. federal income tax principles, will generally be includible in the gross income of a U.S. Holder as dividend income on the day actually or constructively received by the U.S. Holder, in the case of ordinary shares. Because TCB does not intend to determine its earnings and profits on the basis of U.S. federal income tax principles, any distribution will generally be treated as a "dividend" for U.S. federal income tax purposes. Under current law, a non-corporate recipient of a dividend from a "qualified foreign corporation" will generally be subject to tax on the dividend income at the lower applicable net capital gains rate rather than the marginal tax rates generally applicable to ordinary income provided that certain holding period and other requirements are met.

A non-U.S. corporation (other than a corporation that is classified as a PFIC for the taxable year in which the dividend is paid or the preceding taxable year) will generally be considered to be a qualified foreign corporation (i) if it is eligible for the benefits of a comprehensive tax treaty with the United States which the Secretary of Treasury of the United States determines is satisfactory for purposes of this provision and which includes an exchange of information program, or (ii) with respect to any dividend it pays on stock, which is readily tradable on an established securities market in the United States. TCB believes it is eligible for the benefits of the Convention Between the Government of the United States of America and the Government of the United Kingdom of Great Britain and Northern Ireland for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and On Capital Gains, or the United States-United Kingdom income tax treaty (which the Secretary of the Treasury of the United States has determined is satisfactory for this purpose and includes an exchange of information program), in which case it would be treated as a qualified foreign corporation with respect to dividends paid on the ordinary shares. U.S. Holders are urged to consult their tax advisors regarding the availability of the reduced tax rate on dividends in their particular circumstances. Dividends received on the ordinary shares will not be eligible for the dividends received deduction allowed to corporations.

Sale or Other Disposition of Ordinary Shares

Subject to the PFIC rules discussed below, a U.S. Holder of TCB ordinary shares will generally recognize capital gain or loss, if any, upon the sale or other disposition of ordinary shares in an amount equal to the difference between the amount realized upon the disposition and the U.S. Holder's adjusted tax basis in such ordinary shares. Any capital gain or loss will be long-term capital gain or loss if the ordinary shares have been held for more than one year and will generally be United States source capital gain or loss for United States foreign tax credit purposes. Long-term capital gains of non-corporate taxpayers are currently eligible for reduced rates of taxation.

Disposition of Foreign Currency

U.S. Holders are urged to consult their tax advisors regarding the tax consequences of receiving, converting or disposing of any non-U.S. currency received as dividends on our ordinary shares.

Tax on Net Investment Income

Additional 3.8% Medicare tax on some or all of such U.S. Holder's "net investment income." Net investment income generally includes income from the ordinary shares unless such income is derived in the ordinary course of the conduct of a trade or business (other than a trade or business that consists of certain passive or trading activities). You should consult your tax advisors regarding the effect this Medicare tax may have, if any, on your acquisition, ownership or disposition of ordinary shares.

Passive Foreign Investment Company Rules

If TCB is classified as a PFIC for any taxable year during which a U.S. Holder holds the TCB ordinary shares, unless the holder makes a mark-to-market election (as described below), the holder will, except as discussed below, be subject to special tax rules that have a penalizing effect, regardless of whether TCB remains a PFIC, on (i) any

excess distribution that TCB make to the holder (which generally means any distribution paid during a taxable year to a holder that is greater than 125% of the average annual distributions paid in the three preceding taxable years or, if shorter, the holder's holding period for the ordinary shares), and (ii) any gain realized on the sale or other disposition, including, under certain circumstances, a pledge, of TCB ordinary shares. Under the PFIC rules:

- The excess distribution and/or gain will be allocated ratably over the U.S. Holder's holding period for the ordinary shares;
- The amount of the excess distribution or gain allocated to the taxable year of the distribution or disposition and any taxable years in the U.S. Holder's holding period prior to the first taxable year in which TCB is classified as a PFIC, or a pre-PFIC year, will be taxable as ordinary income; and
- The amount of the excess distribution or gain allocated to each taxable year other than the taxable year of the distribution or disposition or a pre-PFIC year, will be subject to tax at the highest tax rate in effect applicable to the individuals or corporations, and the interest charge generally applicable to underpayments of tax will be imposed on the resulting tax attributable to each such year.

If TCB is a PFIC for any taxable year during which a U.S. Holder holds the TCB ordinary shares and any of its non-U.S. subsidiaries is also a PFIC, such holder would be treated as owning a proportionate amount (by value) of the shares of the lower-tier PFIC for purposes of the application of these rules. Each U.S. Holder is advised to consult its tax advisors regarding the application of the PFIC rules to any of TCB's subsidiaries.

As an alternative to the foregoing rules, a U.S. Holder of "marketable stock" in a PFIC may make a mark-to-market election with respect to such ordinary shares, provided that the ordinary shares "regularly traded" (as specially defined under the Code) on The NASDAQ Stock Market. No assurances may be given regarding whether the ordinary shares will qualify, or will continue to be qualified, as being regularly traded in this regard. If a mark-to-market election is made, the U.S. Holder will generally (i) include as ordinary income for each taxable year that TCB is a PFIC the excess, if any, of the fair market value of ordinary shares held at the end of the taxable year over the adjusted tax basis of such ordinary shares and (ii) deduct as an ordinary loss the excess, if any, of the adjusted tax basis of the ordinary shares over the fair market value of such ordinary shares held at the end of the taxable year, but only to the extent of the net amount previously included in income as a result of the mark-to-market election. The U.S. Holder's adjusted tax basis in the ordinary shares would be adjusted to reflect any income or loss resulting from the mark-to-market election. If a U.S. Holder makes an effective mark-to-market election, in each year that TCB is a PFIC any gain recognized upon the sale or other disposition of the ordinary shares will be treated as ordinary income and loss will be treated as ordinary loss, but only to the extent of the net amount previously included in income as a result of the mark-to-market election. U.S. Holders of TCB's ordinary shares should consult their tax advisors regarding the availability of a mark-to-market election with respect to such ordinary shares.

If a U.S. Holder makes a mark-to-market election in respect of a corporation classified as a PFIC and such corporation ceases to be classified as a PFIC, the holder will not be required to take into account the mark-to-market gain or loss described above during any period that such corporation is not classified as a PFIC.

Because a mark-to-market election cannot be made for any lower-tier PFICs that a PFIC may own, a U.S. Holder who makes a mark-to-market election with respect to the ordinary shares may continue to be subject to the general PFIC rules with respect to such holder's indirect interest in any of TCB's non-U.S. subsidiaries that is classified as a PFIC.

TCB does not intend to provide information necessary for U.S. Holder's to make qualified electing fund elections, which, if available, would result in tax treatment different from the general tax treatment for PFICs described above. However, as described above under "Passive Foreign Investment Company Considerations-PFIC Classification of TCB," it is not presently expected that TCB will be classified as a PFIC for the 2021 taxable year or the foreseeable future.

As discussed above under "Dividends Paid on Ordinary Shares", dividends that TCB pays on the ordinary shares will not be eligible for the reduced tax rate that applies to qualified dividend income if TCB is classified as a PFIC for the taxable year in which the dividend is paid or the preceding taxable year. In addition, if a U.S. Holder owns the ordinary shares during any taxable year that TCB is a PFIC, the holder must file an annual information return with the IRS. Each holder is urged to consult its tax advisor concerning the U.S. federal income tax consequences of purchasing, holding, and disposing ordinary shares if TCB is or become a PFIC, including the possibility of making a mark-to-market election and the unavailability of the qualified electing fund election.

Information reporting and backup withholding

Certain U.S. Holders are required to report information to the IRS relating to an interest in "specified foreign financial assets," including shares issued by a non-U.S. corporation, for any year in which the aggregate value of all specified foreign financial assets exceeds $50 thousand (or a higher U.S. dollar amount prescribed by the IRS), subject to certain exceptions (including an exception for shares held in custodial accounts maintained with a United States financial institution). These rules also impose penalties if a holder is required to submit such information to the IRS and fails to do so.

In addition, U.S. Holders may be subject to information reporting to the IRS and backup withholding with respect to dividends on and proceeds from the sale or other disposition of the TCB's ordinary shares. Information reporting will apply to payments of dividends on, and to proceeds from the sale or other disposition of, TCB's ordinary shares by a paying agent within the United States to a holder, other than holders that are exempt from information reporting and properly certify their exemption. A paying agent within the United States will be required to withhold at the applicable statutory rate, currently 24%, in respect of any payments of dividends on, and the proceeds from the disposition of, TCB's ordinary shares within the U.S. to a U.S. Holder (other than holders that are exempt from backup withholding and properly certify their exemption) if the holder fails to furnish its correct taxpayer identification number or otherwise fails to comply with applicable backup withholding requirements. U.S. Holders who are required to establish their exempt status generally must provide a properly completed IRS Form W-9.

Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a holder's U.S. federal income tax liability. A U.S. Holder generally may obtain a refund of any amounts withheld under the backup withholding rules by filing the appropriate claim for refund with the IRS in a timely manner and furnishing any required information. Each U.S. Holder is advised to consult with its tax advisor regarding the application of the United States information reporting rules to their particular circumstances.

Material United Kingdom Tax Considerations

The following is a description of the material U.K. tax considerations relating primarily to the ownership and disposal of our ordinary shares by the U.S. Holders described above. The U.K. tax comments set out below are based on current U.K. tax law as applied in Scotland, and HMRC practice (which may not be binding on HMRC) as at the date of this summary, both of which are subject to change, possibly with retrospective effect. They are intended as a general guide and, save where otherwise stated, only apply to you if you are not resident in the U.K. for U.K. tax purposes and do not hold our ordinary shares for the purposes of a trade, profession or vocation that you carry on in the U.K. through a branch, agency or permanent establishment in the U.K. and if you hold our ordinary shares as an investment for U.K. tax purposes and are not subject to special rules.

This summary does not address all possible tax consequences relating to an investment in our ordinary shares. In particular it does not cover the U.K. inheritance tax consequences of holding our ordinary shares. It assumes that DTC has not made an election under section 97A(1) of the Finance Act 1986. It assumes that we do not (and will not at any time) derive 75% or more of our qualifying asset value, directly or indirectly, from U.K. land, and that we are and remain solely resident in the U.K. for tax purposes.

It assumes that the holder is not our officer or our employee (or of any related company of ours) and has not (and is not deemed to have) acquired the ordinary shares by virtue of an office or employment. It assumes that a holder of ordinary shares is the beneficial owner of the underlying ordinary shares for U.K. tax purposes. This summary is for general information only and is not intended to be, nor should it be considered to be, legal or tax advice to any particular holder. Holders of our ordinary shares are strongly urged to consult their tax advisers in connection with the U.K. tax consequences of their investment in our ordinary shares.

U.K. Taxation of Dividends and Distributions

We will not be required to withhold amounts for or on account of U.K. tax at source when paying a dividend or distribution in respect of our ordinary shares.

Individual holders who hold our ordinary shares as an investment, who are not resident in the U.K. for U.K. tax purposes should not be subject to U.K. income tax in respect of any dividends on our ordinary shares, unless they hold their ordinary shares in connection with any trade, profession or vocation carried on (whether solely or in partnership) by them in the U.K. through a branch, agency or permanent establishment in the U.K.. In these circumstances, such holder may, depending on his or her individual circumstances, be chargeable to U.K. income tax in respect of our dividends.

Corporate holders which are not resident in the U.K. for U.K. tax purposes should not be subject to U.K. corporation tax in respect of any dividends on our ordinary shares, unless they carry on a trade in the U.K. through a permanent establishment to which the ordinary shares are attributable. In these circumstances, such holders may, depending on their individual circumstances and if an exemption from U.K. corporation tax in respect of dividend payments does not apply, be chargeable to U.K. corporation tax in respect of our dividends.

U.K. Taxation of Capital Gains

An individual holder who is not resident in the U.K. for U.K. tax purposes should not be liable to U.K. capital gains tax on capital gains realized on the disposal of their ordinary shares unless such holder carries on (whether solely or in partnership) a trade, profession or vocation in the U.K. through a branch or agency in the U.K. to which our ordinary shares are attributable. In these circumstances, such holder may, depending on his or her individual circumstances, be chargeable to U.K. capital gains tax on chargeable gains arising from a disposal of his or her ordinary shares.

Any such individual holder of our ordinary shares who is temporarily non-resident for U.K. tax purposes will, in certain circumstances, become liable to U.K. tax on capital gains in respect of gains realized while they were not resident in the U.K.

A corporate holder of our ordinary shares which is not resident in the U.K. for U.K. tax purposes should not be liable for U.K. corporation tax on chargeable gains realized on the disposal of our ordinary shares unless it carries on a trade in the U.K. through a permanent establishment in the U.K. to which our ordinary shares are attributable. In these circumstances, a disposal of ordinary shares by such holder may give rise to a chargeable gain or an allowable loss for the purposes of U.K. corporation tax.

Stamp Duty and Stamp Duty Reserve Tax

The following statements apply to all holders, regardless of their jurisdiction of tax residence.

Stamp Duty (or Stamp Duty Reserve Tax ('SDRT')) is a UK tax which is levied on certain transfers of shares of Scottish companies irrespective of the tax residence of the parties to the transaction. References in this section to 'Stamp Duty' shall be taken to apply to Stamp Duty and SDRT.

Where payable Stamp Duty is generally paid out of the proceeds of the transaction and is charged at 1.5% on the greater of the price paid or the market value of the transaction.

Whether Stamp Duty is payable on the transfer of our shares depends upon the nature of the transaction and whether a depository receipt system or clearance system (such as the Depository Trust Company ('DTC') in the United Stated is involved). We are planning to enter into arrangements with DTC to allow our ordinary shares to be settled through their facilities.

Based on current UK Revenue (HMRC) practice and case law no Stamp Duty is generally payable where a transfer of ordinary shares is an integral part of the issuance of new shares which are issued directly into DTC's system. In addition, a transfer of our ordinary shares which is effected by means of the transfer of book entry interests entirely within the DTC system will generally not be subject to Stamp Duty. Accordingly, no Stamp Duty should be payable on the issue by us of new ordinary shares or on shareholders who trade our shares through DTC's system, provided that those shares remain within that system.

However, a transfer of our ordinary shares where any party to the transfer holds our ordinary shares outside of DTC (such as a shareholder who transfers their shares into DTC for the first time) may be subject to UK stamp duty. Thus, for example, where a shareholder holds his ordinary shares directly rather than beneficially through DTC, any transfer of his ordinary shares (including into DTC with a view to trading) would be likely to be subject to Stamp Duty currently at the rate of 1.5% of the higher of the price paid or the market value of the shares acquired.

UNDERWRITING

EF Hutton, division of Benchmark Investments, LLC (the "Representative") is acting as representative of the underwriters of the offering. We have entered into an underwriting agreement with the Representative (the "underwriting agreement"). Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to each underwriter named below, and each underwriter named below has severally agreed to purchase, at the initial public offering price per share less the underwriting discounts set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

	Number of Shares
EF Hutton, division of Benchmark Investments, LLC	
Total	

The underwriters are committed to purchase all of the shares of common stock offered by us, other than those covered by the over-allotment option to purchase additional shares of common stock described below, if they purchase any shares. The obligations of the underwriters may be terminated upon the occurrence of certain events specified in the underwriting agreement. Furthermore, pursuant to the underwriting agreement, the underwriters' obligations are subject to customary conditions, representations, and warranties contained in the underwriting agreement, such as receipt by the underwriters of officers' certificates and legal opinions.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the shares of common stock subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public, and

to reject orders in whole or in part.

Over-Allotment Option

We have granted the underwriters an over-allotment option. This option, which is exercisable for up to 45 days after the date of this prospectus, permits the underwriters to purchase up to an aggregate of additional shares of common stock (equal to 15% of the common stock sold in the offering) at the initial public offering price per share, less underwriting discounts and commissions, solely to cover over-allotments, if any. The purchase price to be paid per additional share of common stock shall be equal to the initial public offering price of one share, less the underwriting discount. If this option is exercised in full, the total price to the public will be $_____ and the total net proceeds, before expenses, to us will be $_____.

Discounts, Commissions, and Reimbursement

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

		Total	
	Per Share	Without Option	With Option
Initial public offering price	$	$	$
Underwriting discounts and commissions (8%)	$	$	$
Proceeds, before expenses, to us	$	$	$

The underwriters propose to offer the shares to the public at the initial public offering price set forth on the cover of this prospectus. In addition, the underwriters may offer some of the shares to other securities dealers at such price less a concession of $ per share. If all of the shares offered by us are not sold at the initial public offering price, the Representative may change the offering price and other selling terms by means of a supplement to this prospectus.

We have also agreed to pay all expenses relating to the offering, including: (a) all filing fees and expenses relating to the registration of the shares with the Commission; (b) all fees and expenses relating to the listing of the shares on Nasdaq; (c) all fees associated with the review of the offering by FINRA; (d) all fees, expenses and disbursements relating to the registration, qualification or exemption of shares offered under "blue sky" securities laws or the securities laws of foreign jurisdictions designated by the Representative, including the reasonable fees and expenses of the Representative's blue sky counsel; (e) all fees, expenses and disbursements relating to the registration, qualification or exemption of the shares under the securities laws of such foreign jurisdictions; (f) the costs of mailing and printing the offering materials; (g) transfer and/or stamp taxes, if any, payable upon our transfer of the shares to the Representative; and (h) the fees and expenses of our accountants; and (i) actual accountable expenses of the Representative not to exceed $150,000, which amount includes expenses for the Representative's legal counsel and road show expenses. We will also pay to the representative by deduction from the net proceeds of this offering, a non-accountable expense allowance equal to 0.35% of the gross proceeds received by us from the sale of our shares of common stock, exclusive of any shares that may be issued pursuant to exercise of the underwriters' over-allotment option.

We have paid a $15,000 advance to the Representative, which shall be applied against actual out-of-pocket-accountable expenses, which will be returned to us to the extent such out-of-pocket accountable expenses are not actually incurred in accordance with FINRA Rule 5110(f)(2)(C).

We estimate that the total expenses of the offering payable by us, excluding the total underwriting discount, and including the above-referenced advance to the Representative, will be approximately $_____ million.

Underwriter Warrants

We have agreed to issue warrants to EF Hutton, division of Benchmark Investments, LLC, as representative of the underwriters, upon the closing of this offering, which entitle it to purchase up to 5% of the total number of shares of common stock being sold in this offering (the "Underwriter Warrants"). The exercise price of the warrants is equal to 100% of the offering price of the Common Stock offered hereby. The Underwriter Warrants will be exercisable at any time and from time to time, in whole or in part, during the four and a half-year period commencing six months from the effective date of this offering (the "Initial Exercise Date"). The Underwriter Warrants and the shares of Common Stock underlying the warrants have been deemed compensation by FINRA and are therefore subject to a 180-day lock-up pursuant to Rule 5110(g)(1) of FINRA. The Underwriter Warrants may not be sold, transferred, assigned, pledged or hypothecated or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities for a period of 180 days following the effective date of the registration for this offering, except that they may be assigned, in whole or in part, to any officer or partner of the representative, and to members of the underwriting syndicate or selling group (or to officers or partners thereof), or as otherwise permitted, in compliance with FINRA Rule 5110(g)(2). The Underwriter Warrants will contain a provision for one demand registration of the sale of the underlying shares of Common Stock at our expense. The demand for registration may be made at any time during a period of four years commencing on the Initial Exercise Date. In addition, the Underwriter Warrants will contain a provision for unlimited "piggyback" registration rights for a period of two years from the Initial Exercise Date at our expense. The exercise price and number of shares issuable upon exercise of the Underwriters Warrants may be adjusted in certain circumstances including in the event of a stock split or other corporate events and as otherwise permitted under Rule 5110(f)(2)(G) of FINRA.

Pricing of the Offering

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. In determining the initial public offering price, we and the representatives of the underwriters expect to consider a number of factors including:

- the information set forth in this prospectus and otherwise available to the representatives;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;
- our prospects for future earnings;

- the general condition of the securities markets at the time of this offering;
- the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for the shares of our common stock, or that the shares will trade in the public market at or above the initial public offering price.

Discretionary Accounts

The underwriters do not intend to confirm sales of the securities offered hereby to any accounts over which they have discretionary authority.

Lock-Up Agreements

Our executive officers and directors, and certain of our stockholders have agreed not to, without the prior written consent of the Representative, directly or indirectly, offer to sell, sell, pledge or otherwise transfer or dispose of any of shares of our common stock (or enter into any transaction or device that is designed to, or could be expected to, result in the transfer or disposition by any person at any time in the future of our common stock, enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic benefits or risks of ownership of shares of our common stock, make any demand for or exercise any right or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of common stock or securities convertible into or exercisable or exchangeable for shares of common stock or any other of our securities or publicly disclose the intention to do any of the foregoing, subject to customary exceptions, for a period of 180 days from the date of this prospectus.

No Sales of Similar Securities

We have agreed not to offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock or enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of our shares of common stock, whether any such transaction is to be settled by delivery of shares of common stock or such other securities, in cash or otherwise, without the prior written consent of the Representative, for a period of 360 days from the date of this prospectus.

Electronic Offer, Sale, and Distribution of Securities

A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members. The Representative may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of, nor incorporated by reference into, this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us, and should not be relied upon by investors.

Listing

We have applied to list our common stock on the Nasdaq Global Market under the symbol "_____"

Stabilization

In connection with this offering, the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate-covering transactions, penalty bids, and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase securities so long as the stabilizing bids do not exceed a specified maximum and are engaged in for the purpose of preventing or retarding a decline in the market price of the securities while the offering is in progress.

- Over-allotment transactions involve sales by the underwriters of securities in excess of the number of securities the underwriters are obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of securities over-allotted by the underwriters is not greater than the number of securities that they may purchase in the over-allotment option. In a naked short position, the number of securities involved is greater than the number of securities in the over-allotment option. The underwriters may close out any short position by exercising their over-allotment option and/or purchasing securities in the open market.

- Syndicate covering transactions involve purchases of securities in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of securities to close out the short position, the underwriters will consider, among other things, the price of securities available for purchase in the open market as compared with the price at which they may purchase securities through exercise of the over-allotment option. If the underwriters sell more securities than could be covered by exercise of the over-allotment option and, therefore, have a naked short position, the position can be closed out only by buying securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the securities in the open market that could adversely affect investors who purchase in the offering.

- Penalty bids permit the Representative to reclaim a selling concession from a syndicate member when the securities originally sold by that syndicate member are purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, over-allotment transactions, syndicate covering transactions, and penalty bids may have the effect of raising or maintaining the market price of our securities or preventing or retarding a decline in the market price of our securities. As a result, the price of our securities in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our securities. These transactions may be effected on the Nasdaq Stock Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Passive Market Making

In connection with this offering, underwriters, and selling group members may engage in passive market making transactions in our securities on Nasdaq in accordance with Rule 103 of Regulation M under the Exchange Act, during a period before the commencement of offers or sales of the shares and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, then that bid must then be lowered when specified purchase limits are exceeded.

Offer Restrictions Outside the United States

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a

solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Australia

This prospectus is not a disclosure document under Chapter 6D of the Australian Corporations Act, has not been lodged with the Australian Securities and Investments Commission and does not purport to include the information required of a disclosure document under Chapter 6D of the Australian Corporations Act. Accordingly, (i) the offer of the securities under this prospectus is only made to persons to whom it is lawful to offer the securities without disclosure under Chapter 6D of the Australian Corporations Act under one or more exemptions set out in section 708 of the Australian Corporations Act, (ii) this prospectus is made available in Australia only to those persons as set forth in clause (i) above, and (iii) the offeree must be sent a notice stating in substance that by accepting this offer, the offeree represents that the offeree is such a person as set forth in clause (i) above, and, unless permitted under the Australian Corporations Act, agrees not to sell or offer for sale within Australia any of the securities sold to the offeree within 12 months after its transfer to the offeree under this prospectus.

Canada

The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

China

The information in this document does not constitute a public offer of the securities, whether by way of sale or subscription, in the People's Republic of China (the "PRC") (excluding, for purposes of this paragraph, Hong Kong Special Administrative Region, Macau Special Administrative Region, and Taiwan). The securities may not be offered or sold directly or indirectly in the PRC to legal or natural persons other than directly to "qualified domestic institutional investors."

European Economic Area — Belgium, Germany, Luxembourg and Netherlands

The information in this document has been prepared on the basis that all offers of securities will be made pursuant to an exemption under the Directive 2003/71/EC ("Prospectus Directive"), as implemented in Member States of the European Economic Area (each, a "Relevant Member State"), from the requirement to produce a prospectus for offers of securities.

An offer to the public of securities has not been made, and may not be made, in a Relevant Member State except pursuant to one of the following exemptions under the Prospectus Directive as implemented in that Relevant Member State:

- to legal entities that are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- to any legal entity that has two or more of (i) an average of at least 250 employees during its last fiscal year; (ii) a total balance sheet of more than €43,000,000 (as shown on its last annual unconsolidated or consolidated financial statements), and (iii) an annual net turnover of more than €50,000,000 (as shown on its last annual unconsolidated or consolidated financial statements);
- to fewer than 100 natural or legal persons (other than qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive) subject to obtaining the prior consent of our Company or any underwriter for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of securities shall result in a requirement for the publication by our Company of a prospectus pursuant to Article 3 of the Prospectus Directive.

France

This document is not being distributed in the context of a public offering of financial securities (offre au public de titres financiers) in France within the meaning of Article L.411-1 of the French Monetary and Financial Code (Code monétaire et financier) and Articles 211-1, et seq. of the General Regulation of the French Autorité des marchés financiers ("AMF"). The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France.

This document and any other offering material relating to the securities have not been, and will not be, submitted to the AMF for approval in France and, accordingly, may not be distributed or caused to distributed, directly or indirectly, to the public in France.

Such offers, sales, and distributions have been and shall only be made in France to (i) qualified investors (investisseurs qualifiés) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-1 to D.411-3, D.744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation and/or (ii) a restricted number of non-qualified investors (cercle restreint d'investisseurs non-qualifiés) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-4, D.744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation.

Pursuant to Article 211-3 of the General Regulation of the AMF, investors in France are informed that the securities cannot be distributed (directly or indirectly) to the public by the investors otherwise than in accordance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 to L.621-8-3 of the French Monetary and Financial Code.

Ireland

The information in this document does not constitute a prospectus under any Irish laws or regulations and this document has not been filed with or approved by any Irish regulatory authority as the information has not been prepared in the context of a public offering of securities in Ireland within the meaning of the Irish Prospectus (Directive 2003/71/EC) Regulations 2005 (the "Prospectus Regulations"). The securities have not been offered or sold, and will not be offered, sold or delivered directly or

indirectly in Ireland by way of a public offering, except to (i) qualified investors as defined in Regulation 2(l) of the Prospectus Regulations and (ii) fewer than 100 natural or legal persons who are not qualified investors.

Israel

The securities offered by this prospectus have not been approved or disapproved by the Israeli Securities Authority (the "ISA"), nor have such securities been registered for sale in Israel. The shares may not be offered or sold, directly or indirectly, to the public in Israel, absent the publication of a prospectus. The ISA has not issued permits, approvals or licenses in connection with the offering or publishing the prospectus; nor has it authenticated the details included herein, confirmed their reliability or completeness, or rendered an opinion as to the quality of the securities being offered. Any resale in Israel, directly or indirectly, to the public of the securities offered by this prospectus is subject to restrictions on transferability and must be effected only in compliance with the Israeli securities laws and regulations.

Italy

The offering of the securities in the Republic of Italy has not been authorized by the Italian Securities and Exchange Commission (Commissione Nazionale per le Società e la Borsa, "CONSOB") pursuant to the Italian securities legislation and, accordingly, no offering material relating to the securities may be distributed in Italy and such securities may not be offered or sold in Italy in a public offer within the meaning of Article 1.1(t) of Legislative Decree No. 58 of 24 February 1998 ("Decree No. 58"), other than:

- to Italian qualified investors, as defined in Article 100 of Decree No. 58 by reference to Article 34-ter of CONSOB Regulation no. 11971 of 14 May 1999 ("Regulation no. 11971") as amended ("Qualified Investors"); and
- in other circumstances that are exempt from the rules on public offer pursuant to Article 100 of Decree No. 58 and Article 34-ter of Regulation No. 11971 as amended.

Any offer, sale or delivery of the securities or distribution of any offer document relating to the securities in Italy (excluding placements where a Qualified Investor solicits an offer from the issuer) under the paragraphs above must be:

- made by investment firms, banks or financial intermediaries permitted to conduct such activities in Italy in accordance with Legislative Decree No. 385 of 1 September 1993 (as amended), Decree No. 58, CONSOB Regulation No. 16190 of 29 October 2007, and any other applicable laws; and
- in compliance with all relevant Italian securities, tax and exchange controls and any other applicable laws.

Any subsequent distribution of the securities in Italy must be made in compliance with the public offer and prospectus requirement rules provided under Decree No. 58 and the Regulation No. 11971 as amended unless an exception from those rules applies. Failure to comply with such rules may result in the sale of such securities being declared null and void and in the liability of the entity transferring the securities for any damages suffered by the investors.

Japan

The securities have not been and will not be registered under Article 4, paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948), as amended (the "FIEL"), pursuant to an exemption from the registration requirements applicable to a private placement of securities to Qualified Institutional Investors (as defined in and in accordance with Article 2, paragraph 3 of the FIEL and the regulations promulgated thereunder). Accordingly, the securities may not be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan other than Qualified Institutional Investors. Any Qualified Institutional Investor who acquires securities may not resell them to any person in Japan that is not a Qualified Institutional Investor, and acquisition by any such person of securities is conditional upon the execution of an agreement to that effect.

Portugal

This document is not being distributed in the context of a public offer of financial securities (oferta pública de valores mobiliários) in Portugal, within the meaning of Article 109 of the Portuguese Securities Code (Código dos Valores Mobiliários). The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in Portugal. This document and any other offering material relating to the securities have not been, and will not be, submitted to the Portuguese Securities Market Commission (Comissão do Mercado de Valores Mobiliários) for approval in Portugal and, accordingly, may not be distributed or caused to distributed, directly or indirectly, to the public in Portugal, other than under circumstances that are deemed not to qualify as a public offer under the Portuguese Securities Code. Such offers, sales, and distributions of securities in Portugal are limited to persons who are "qualified investors" (as defined in the Portuguese Securities Code). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

Sweden

This document has not been, and will not be, registered with or approved by Finansinspektionen (the Swedish Financial Supervisory Authority). Accordingly, this document may not be made available, nor may the securities be offered for sale in Sweden, other than under circumstances that are deemed not to require a prospectus under the Swedish Financial Instruments Trading Act (1991:980) (Sw. lag (1991:980) om handel med finansiella instrument). Any offering of securities in Sweden is limited to persons who are "qualified investors" (as defined in the Financial Instruments Trading Act). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

Switzerland

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ("SIX") or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering material relating to the securities may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering material relating to the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority.

This document is personal to the recipient only and not for general circulation in Switzerland.

United Arab Emirates

Neither this document nor the securities have been approved, disapproved or passed on in any way by the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates, nor have we received authorization or licensing from the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates to market or sell the securities within the United Arab Emirates. This document does not constitute and may not be used for

the purpose of an offer or invitation. No services relating to the securities, including the receipt of applications and/or the allotment or redemption of such shares, may be rendered within the United Arab Emirates by our Company.

No offer or invitation to subscribe for securities is valid or permitted in the Dubai International Financial Centre.

United Kingdom

Neither the information in this document nor any other document relating to the offer has been delivered for approval to the Financial Services Authority in the United Kingdom and no prospectus (within the meaning of section 85 of the Financial Services and Markets Act 2000, as amended ("FSMA")) has been published or is intended to be published in respect of the securities. This document is issued on a confidential basis to "qualified investors" (within the meaning of section 86(7) of FSMA) in the United Kingdom, and the securities may not be offered or sold in the United Kingdom by means of this document, any accompanying letter or any other document, except in circumstances which do not require the publication of a prospectus pursuant to section 86(1) FSMA. This document should not be distributed, published or reproduced, in whole or in part, nor may its contents be disclosed by recipients to any other person in the United Kingdom.

Any invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) received in connection with the issue or sale of the securities has only been communicated or caused to be communicated and will only be communicated or caused to be communicated in the United Kingdom in circumstances in which section 21(1) of FSMA does not apply to our company.

In the United Kingdom, this document is being distributed only to, and is directed at, persons (i) who have professional experience in matters relating to investments falling within Article 19(5) (investment professionals) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 ("FPO"), (ii) who fall within the categories of persons referred to in Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the FPO or (iii) to whom it may otherwise be lawfully communicated (together "relevant persons"). The investments to which this document relates are available only to, and any invitation, offer or agreement to purchase will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

EXPENSES OF THE OFFERING

Set forth below is an itemization of the total expenses, excluding underwriting discounts, expected to be incurred in connection with the offer and sale of the ordinary shares by us. With the exception of the SEC registration fee and the FINRA filing fee, all amounts are estimates, in United States dollars:

SEC registration fee	$
Nasdaq listing fee	$
FINRA filing fee	$
Transfer agent fees and expenses	$
Printer fees and expenses	$
Legal fees and expenses	$
Accounting fees and expenses	$
Miscellaneous	$
Total	$

LEGAL MATTERS

We are being represented by Golenbock Eiseman Assor Bell & Peskoe LLP, New York, New York with respect to certain legal matters of United States federal securities and New York state law. We are being represented by Addleshaw Goddard, Glasgow, Scotland with respect to certain legal matters of the law of Scotland and other applicable law of the United Kingdom and as to certain patent law matters by Murgitroyd & Company Limited. The validity of the ordinary shares offered in this offering and legal matters as to the law of Scotland were passed upon for us by Addleshaw Goddard, Glasgow, Scotland. The underwriters are being represented by Lucosky Brookman LLP with respect to matters of federal law of the United States and of the law of the State of New York.

EXPERTS

The consolidated financial statements of TC Biopharm Limited at December 31, 2020 and 2019, and for each of the two years in the period ended December 31, 2020, appearing in this prospectus and registration statement have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements) appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The registered business address of Ernst & Young LLP is 144 Morrison Street, Edinburgh, EH3 8EX, United Kingdom.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form F-1 under the Securities Act relating to this offering of the ordinary shares. This prospectus does not contain all of the information contained in the registration statement. The rules and regulations of the SEC allow us to omit certain information from this prospectus that is included in the registration statement. Statements made in this prospectus concerning the contents of any contract, agreement or other document are summaries of all material information about the documents summarized, but are not complete descriptions of all terms of these documents. If we filed any of these documents as an exhibit to the registration statement, you may read the document itself for a complete description of its terms.

You may read and copy the registration statement, including the related exhibits and schedules, and any document we file with the SEC without charge at the SEC's public reference room at 100 F Street, N.E., Room 1580, Washington, DC 20549. You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Room 1580, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. The SEC also maintains an Internet website that contains reports and other information regarding issuers that file electronically with the SEC. Our filings with the SEC are also available to the public through the SEC's website at http://www.sec.gov.

Upon completion of this offering, we will become subject to the information reporting requirements of the Exchange Act that are applicable to foreign private issuers, and under those requirements are filing reports with the SEC. Those other reports or other information may be inspected without charge at the locations described above. As a foreign private issuer, we will be exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements, and our officers, directors and principal shareholders will be exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we will not be required under the Exchange Act to file annual, quarterly and current reports and financial statements with the SEC as frequently or as promptly as U.S. registrants whose securities are registered under the Exchange Act. However, we will be required to file with the SEC, within 120 days after the end of each fiscal year, or such applicable time as

required by the SEC, an annual report on Form 20-F containing financial statements audited by an independent registered public accounting firm, and will submit to the SEC, on Form 6-K, unaudited quarterly financial information.

We maintain a corporate website at https://tcbiopharm.com/. Information contained on, or that can be accessed through, our website does not constitute a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference. We will post on our website any materials required to be so posted on such website under applicable corporate or securities laws and regulations, including, posting any XBRL interactive financial data required to be filed with the SEC and any notices of general meetings of our shareholders.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Audited Consolidated Financial Statements of TC BioPharm Limited

Report of Independent Registered Public Accounting Firm

The Shareholders and the Board of Directors and Shareholders of TC BioPharm Limited

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of TC BioPharm Limited (the Company) as of December 31, 2020 and 2019, the related consolidated statements of comprehensive loss, changes in equity and cash flows for each of the two years in the period ended December 31, 2020, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2020, in conformity with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB).

The Company's Ability to Continue as a Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses from operations, has a working capital deficiency, and has stated that substantial doubt exists about the Company's ability to continue as a going concern. Management's evaluation of the events and conditions and management's plans regarding these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2019.

Edinburgh, United Kingdom
July 26, 2021

TC BIOPHARM LIMITED

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

FOR THE YEARS ENDED,

	December 31, 2020	December 31, 2019

	Notes	£	£
Revenue	3	**1,978,659**	**3,426,846**
Research and development expenses		(6,679,919)	(8,613,855)
Administrative expenses		(2,206,751)	(3,014,799)
Other income	4	569,200	1,561,266
Total operating expenses, net		(6,338,811)	(6,640,542)
Finance income – interest		1,029	21,903
Finance costs	6	(292,062)	(275,410)
Loss before tax	5	(6,629,844)	(6,894,049)
Income tax credit	7	1,171,928	826,065
Net loss for the year		(5,457,916)	(6,067,984)
Total other comprehensive income/(loss)		-	-
Total comprehensive loss for the year		**(5,457,916)**	**(6,067,984)**
Basic and diluted loss per share	9	(2.88)	(3.39)

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

TC BIOPHARM LIMITED

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

AS AT,

	Notes	December 31, 2020 £	December 31, 2019 £
Assets			
Non-current assets			
Intangible assets	10	423,837	305,628
Right of use assets	14	1,582,100	1,778,676
Property, plant and equipment	11	3,043,653	3,835,502
Total non-current assets		5,049,590	5,919,806
Current assets			
Trade and other receivables	12	290,336	1,314,596
Corporation tax receivable		1,178,700	1,948,919
Cash and cash equivalents		748,015	956,495
Total current assets		2,217,051	4,220,010
Total assets		**7,266,641**	**10,139,816**
Equity			
Share capital	17	1,781,465	1,781,375
Share premium	17	14,760,820	11,095,365
Accumulated deficit		(19,889,357)	(15,416,155)
Total equity		(3,347,072)	(2,539,415)
Non-current liabilities			
Deferred income	15	3,844,526	5,771,105
Lease liabilities and similar	14	2,582,400	3,023,891
Total non-current liabilities		6,426,926	8,794,996
Current liabilities			
Deferred income	15	1,978,665	2,030,746
Trade and other payables	13	1,765,420	1,438,859
Lease liabilities and similar	14	442,702	414,630
Total current liabilities		4,186,787	3,884,235
Total liabilities		**10,613,713**	**12,679,231**
Total equity and liabilities		**7,266,641**	**10,139,816**

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

TC BIOPHARM LIMITED

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

FOR THE YEARS ENDED,

	Notes	Share capital £	Share premium £	Accumulated deficit £	Total equity £
As at January 1, 2019		1,781,301	7,957,309	(10,183,963)	(445,353)
Net loss for the year		-	-	(6,067,984)	(6,067,984)
Recognition of share-based payment costs	18	-	-	835,792	835,792
Issue of share capital, net	17	74	3,138,056	-	3,138,130
As at December 31, 2019		1,781,375	11,095,365	(15,416,155)	(2,539,415)
As at January 1, 2020		1,781,375	11,095,365	(15,416,155)	(2,539,415)
Net loss for the year		-	-	(5,457,916)	(5,457,916)
Recognition of share-based payment costs	18	-	-	984,714	984,714
Issue of share capital, net	17	90	3,665,455	-	3,665,545
As at December 31, 2020		**1,781,465**	**14,760,820**	**(19,889,357)**	**(3,347,072)**

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

TC BIOPHARM LIMITED

CONSOLIDATED CASH FLOW STATEMENT

FOR THE YEARS ENDED,

	Notes	December 31, 2020 £	December 31, 2019 £
Cash flows from operating activities			
Loss before tax		(6,629,844)	(6,894,049)
Adjustments for: Depreciation		826,750	669,079
Amortization of intangible assets		51,889	52,847
Amortization of right of use assets		196,576	182,543
Share-based payment expense		804,714	835,792
Net foreign exchange losses		1,891	61,922
Finance income		(1,029)	(21,903)
Finance costs		292,062	275,410
Disposal of intangible assets		-	10,769
Movements in working capital: Decrease in deferred income		(1,978,659)	(2,030,746)
Decrease in trade and other receivables		1,728,796	258,046
Increase/(decrease) in trade and other payables		326,556	(41,615)
Cash used in operations		(4,380,298)	(6,641,905)
Interest paid		(290,208)	(87,468)
Interest received		1,029	21,903
Tax received / (paid)		1,237,609	(22,153)
Net cash flows used in operating activities		(3,431,868)	(6,729,623)
Cash flows from investing activities			
Purchase of property, plant and equipment		(34,899)	(2,026,545)
Purchase of intangible assets		(170,094)	(170,057)
Net cash flows used in investing activities		(204,993)	(2,196,602)
Cash flows from financing activities			
Repayment of lease liabilities		(415,273)	(184,401)
Receipt of sale and leaseback asset finance	14	-	319,937
Proceeds of sale of own shares		3,898,818	3,138,131
Share issue costs		(53,273)	-
Net cash flows from financing activities		3,430,272	3,273,667
Net decrease in cash and cash equivalents		(206,589)	(5,652,558)
Net foreign exchange difference		(1,891)	(61,922)
Cash and cash equivalents at the beginning of the year		956,495	6,670,975
Cash and cash equivalents at the end of the year		**748,015**	**956,495**

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

TC BIOPHARM LIMITED

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Accounting policies

General information

TC BioPharm Limited ("TC Biopharm" or the "Company") is incorporated as a private company, limited by shares, in Scotland and domiciled in the United Kingdom (registration number: SC453579) and has the following wholly owned subsidiary, TC BioPharm BV (together the "Group"). The registered office is: Maxim 1, 2 Parklands Way, Holytown, Motherwell, Lanarkshire, Scotland, ML1 4WR.

The principal activity of TC BioPharm is as a clinical stage immuno-therapy company pioneering commercialization of allogeneic, 'off-the-shelf' gamma-delta T cell ('GD-T') therapies, ranging from unmodified GD-T therapies to treat haematological cancers and viral infections, to sophisticated proprietary GD-T CAR-T products designed to reach and treat solid tumors.

Basis of preparation

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below.

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The Company has historically prepared the financial statements in accordance with IFRS as adopted by the European Union, however the Group could have asserted it was in compliance with IFRS as adopted by the International Accounting Standards Board for the previous period. There is no material difference noted on adoption and therefore, the Group is not considered a first-time adopter.

The Company's functional and presentation currency is the pound sterling. Monetary amounts in these consolidated financial statements are rounded to the nearest pound.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies in line with those used by the Group. All intra-group transactions, balances, equity, income and expenses are eliminated on consolidation.

These consolidated financial statements were authorised by the Board of Directors on July 21, 2021.

The Company has the following interest in a subsidiary undertaking:

Name	Country of incorporation	Holding	Proportion held	Nature of business
TC BioPharm BV	The Netherlands	Ordinary €1 shares	100%	Biotechnology research and development

1. Accounting policies (continued)

Going concern

As of December 31, 2020, the Company had an accumulated deficit of £20.0 million. The Company has incurred recurring losses and has no sales as no products have obtained the necessary regulatory approval in order to market products. The Company expects to continue to incur losses as a result of costs and expenses related to the Company's clinical development and corporate general and administrative activities.

The Company had negative cash flows from operating activities during the year ended December 31, 2020 of £3.4 million, and current projections indicate that the Company will have continued negative cash flows for the foreseeable future. Net losses incurred for the year ended December 31, 2020 and 2019, amounted to £5.5 million and £6.1 million, respectively.

At December 31, 2020, the Company's cash and cash equivalents amounted to £0.7 million, current assets amounted to £2.2 million and current liabilities amounted to £4.2 million. The Company closed on the sale of A Ordinary shares in August 2020 resulting in the issuance of 79,454 shares for £3.4 million in gross proceeds and a further 8,956 A Ordinary shares subsequent to December 31, 2020 raising an additional £0.4 million of gross proceeds. This funding is in addition to £3.7 million raised in 2019 and early 2020 and brings the total equity raised to date to over £16 million. The Company has additionally issued convertible loan notes subsequent to December 31, 2020 totalling £3.8 million. The existing cash and cash equivalents will not be sufficient to enable the Company to meet its short-term obligations or long-term plans, including commercialization of clinical pipeline products, if approved, or initiation or completion of future registration studies.

Management believes that the net proceeds from this offering and the existing cash and cash equivalents will be sufficient to fund the current operating plans through late 2022. Should the proceeds from listing its securities not materialize or occur as expected, management will need to consider alternative arrangements and such arrangements could have a potentially significant negative impact on the current net asset value of the Group. The Company will consider the following ways to fund its operations including: (1) raising additional capital through equity and/or debt financings; (2) new commercial relationships to help fund future clinical trial costs (i.e. licensing and partnerships); (3) reducing and/or deferring discretionary spending on one or more research and development programs; and/or (4) restructuring operations to change its overhead structure. The Company's future liquidity needs, and ability to address those needs, will largely be determined by the success of its product candidates and key development and regulatory events and its decisions in the future.

The accompanying financial statements have been prepared in conformity with IFRS as issued by IASB, which contemplate continuation of the Company as a going concern. The Company has not established a source of revenues sufficient to cover its operating costs, and as such, have been dependent on funding operations primarily through the sale of equity securities and collaboration revenue. The Company expects to incur further losses over the next several years as it develops its business. The Company has spent, and expects to continue to spend, a substantial amount of funds to implement its business strategy, including its planned product development efforts, preparation for its planned clinical trials, performance of clinical trials and its research and discovery efforts. Although proceeds from listing its securities have not yet been obtained by the Group, management believes it is likely that adequate funding from the anticipated proceeds from listing its securities will be received, such that the Company consequently will have sufficient liquidity to fund the Company's operating activities for at least the next 12 months. On this basis management continues to view the Company as a going concern.

Management's plans include continuing to finance operations through the issuance of additional equity instruments and continuing the development of the current pipeline or through the acquisition of a third party or license agreement. Any transactions which occur may contain covenants that restrict the ability of management to operate the business or may have rights, preferences or privileges senior to the Company's current shareholders and may dilute current shareholders of the Company.

1. Accounting policies (continued)

Going concern (continued)

Engaging in a transaction with a third party is contingent on negotiations among the parties; therefore, there is no certainty that the Company will enter into such an agreement should the Company so desire.

There can be no assurance that the Company will achieve or sustain positive cash flows from operations or profitability. If the Company is unable to maintain adequate liquidity, future operations will need to be scaled back or discontinued. These conditions raise substantial doubt about the Company's ability to continue as a going concern. The Company's consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Impact of COVID-19

The Company was, like many other businesses, impacted materially by the COVID-19 pandemic.

The Company has taken a number of actions to mitigate the impact on its employees and business including:

- Limiting access to our laboratory and office facilities to only those individuals required to carry out their responsibilities, with a restricted number of staff operating at any one time in particular areas.
- Adopting and updating procedures, in line with government guidelines, to reduce exposure and transmission of COVID-19, including social distancing, disinfection, and temperature testing.
- Suspending all business travel and using online meeting technology to enable both internal and external meetings to be held virtually, while facilitating staff to work from home as much as practicably possible.
- Holding sufficient quantities of personal protective equipment (PPE) for all staff and visitors to reduce the risk of COVID-19 transmission.

The principal effects on the business have been to:

- Delay our ability to drive forward our ongoing AML clinical trial into a phase 2/3 trial.
- Delay the planned receipts of significant equity funding which was at an advanced stage of completion at the onset of the pandemic, when the process had to be placed on hold.
- Place on hold the negotiations and diligence being undertaken as part of detailed discussions with a number of pharmaceutical companies in connection with establishing collaboration agreements.
- Place on hold much of our in-house and partnered development work, with some staff on furlough in the period.
- Reduce operational costs while activities are at a restricted level.
- Limit our available working capital in the short to medium term.

The overall disruption caused by the COVID-19 pandemic on global healthcare systems and the other risks and uncertainties associated with the pandemic could cause the Company's business, financial condition, results of operations and growth prospects to be materially adversely affected.

The Company is not aware of any specific event or circumstance that has impacted on its operations in a manner which would require the Company to update its estimates, judgments or revise the carrying value of its assets or liabilities during the year ended December 31, 2020. However, these estimates may change, as new events occur and additional information is obtained, relating to the COVID-19 pandemic or otherwise.

1. Accounting policies (continued)

Revenue - collaboration agreements

Revenue is recognised on upfront collaboration payments on a straight-line basis over the estimated term over which the services promised will be provided.

The business is entitled to receive contractual milestone payments on achievement of certain performance obligations and these are recognised when the milestones are certain to occur.

Refer to Note 3 – *Critical accounting estimates and judgements* for further discussion on revenue from contracts with customers.

Segment reporting

The Company operates in one operating segment. Operating segments are reported in a manner consistent with the internal reporting provided to the Company's chief operating decision maker ("the CODM"). The Company's CODM, its Chief Executive Officer, views the Company's operations and manages its business as a single operating segment, which is the business of a clinical stage immuno-therapy company pioneering commercialization of allogeneic, 'off-the-shelf' gamma-delta T cell ('GD-T') therapies. The Company's principal operations and decision-making functions are located in the United Kingdom from where global decisions are made.

Research & Development

Research expenditure is expensed in the year in which it is incurred. Identifiable development expenditure is capitalised to the extent that the technical, commercial and financial feasibility can be demonstrated of which we have not capitalised any development expenditures since inception.

Grants

Grants are recognised when it is reasonable to expect that the grants will be received and that all related conditions will be met, usually on submission of a valid claim for payment. Revenue grants are treated as deferred income and are credited to the profit and loss account to match against the expenditure towards which they are intended to contribute. Government support received under the Coronavirus Job Retention Scheme is recognised in the month of submission of the claim.

Income tax

Any tax currently payable is based on taxable profit for the period. Taxable profit differs from net profit as reported in the profit or loss because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Company's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the reporting end date.

Deferred tax

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit/loss, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from goodwill or from the initial recognition of other assets and liabilities in a transaction that affects neither the tax profit nor the accounting profit.

1. Accounting policies (continued)

Deferred tax (continued)

The carrying amount of deferred tax assets is reviewed at each reporting end date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered. Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the profit or loss, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity. Deferred tax assets and liabilities are offset when the Company has a legally enforceable right to offset current tax assets and liabilities and the deferred tax assets and liabilities relate to taxes levied by the same tax authority.

Income tax credit

The Company carries out extensive research and development activities, where we benefit from the UK research and development tax relief and expenditure credit regimes. We are able to surrender some of our losses for a cash rebate of up to 33.35% of expenditures related to eligible research and development projects. Such credits are accounted for, depending on the appropriate tax relief, either within the tax provision or other income, in the year in which the expenditures were incurred.

Employee benefits

The Company operates a defined contribution scheme for the benefit of its employees. Contributions payable are charged to the profit or loss in the year they are payable.

Property, plant and equipment

Property, plant and equipment relates to computer equipment, facility and scientific equipment and office equipment which are initially recorded at cost. They are subsequently stated at historical cost less accumulated depreciation and impairment losses. Historical cost includes expenditure that is directly attributable to the acquisition of the items and bringing them into their intended use.

Property, plant and equipment is derecognised on disposal or when no future economic benefits are expected from their use or disposal. Gains or losses arising from de-recognition represent the difference between the net disposal proceeds, if any, and the carrying amount, and are included in the statement of comprehensive income in the period of de-recognition.

Depreciation is provided at rates intended to write down the cost of the assets over their expected useful lives, as follows;

Facility & scientific equipment	- 4 to 10 years
Computer equipment	- 3 years
Office equipment	- 5 years

All depreciation rates are applied on a straight-line basis.

Intangible assets

Intangible assets relate to software, patents and licences. Intangible assets are recognised where it is probable that there will be a future economic benefit and that this can be reliably measured.

Software represents the historical cost of installation of third-party software used within the Company to maintain and control the Company's quality system. The software is hosted and controlled on the Company's servers and can be used independently of the related hardware. Software is amortised, on a straight-line basis, over the life of the relevant license (3 to 4 years).

1. Accounting policies (continued)

Intangible assets (continued)

Patent costs represent the costs of securing patents in relation to the Company's intellectual property. Patent costs are amortised, on a straight-line basis, over the remaining legal life of the relevant patents (the average estimated patent life is 17 years).

License costs represent costs incurred for securing use of third-party technology. License costs are amortised, on a straight-line basis, over the life of the relevant license (3 years). Amortization methods and useful lives are reviewed at each reporting date and adjusted as appropriate.

Impairment of tangible and intangible assets

At each year end date, the Company reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). The recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets in which case the Company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of fair value less costs to sell and value-in-use. In assessing value-in-use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease.

Cash and cash equivalents

Cash and cash equivalents include cash on hand, deposits held on call with banks and other short-term liquid investments with maturities of three months or less.

Financial assets

Initial recognition and measurement

Financial assets are classified, at initial recognition, and subsequently measured at amortised cost, fair value through other comprehensive income (OCI), and fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Company's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Company has applied the practical expedient, the Company initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Company has applied the practical expedient are measured at the transaction price determined under IFRS 15.

In order for a financial asset to be classified and measured at amortised cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest (SPPI)' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

TC BIOPHARM LIMITED

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

1. Accounting policies (continued)

Financial assets (continued)

The Company's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Financial assets at amortised cost

The Company measures financial assets at amortised cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows; and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest (EIR) method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

The Company's financial assets at amortised cost includes trade receivables.

Financial assets are recognised in the Company's statement of financial position when the Company becomes party to the contractual provisions of the instrument.

Financial assets are classified into specified categories. The classification depends on the nature and purpose of the financial assets and is determined at the time of recognition.

Financial assets are initially measured at fair value plus transaction costs, other than those classified as fair value through profit and loss, which are measured at fair value.

Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e. removed from the Company's consolidated statement of financial position) when:

- The rights to receive cash flows from the asset have expired; or
- The Company has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Company has transferred substantially all the risks and rewards of the asset, or (b) the Company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Company has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Company continues to recognise the transferred asset to the extent of its continuing involvement. In that case, the Company also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Company has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Company could be required to repay.

1. Accounting policies (continued)

Financial assets (continued)

Impairment of financial assets

Further disclosures relating to impairment of financial assets are also provided in Note 21.

The Company recognises an allowance for expected credit losses (ECLs) for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Company expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms. ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL). For trade receivables and contract assets, the Company applies a simplified approach in calculating ECLs. Therefore, the Company does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Company has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs. The Company's financial liabilities include trade and other payables, loans and borrowings including bank overdrafts.

Derecognition

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the statement of profit or loss.

1. Accounting policies (continued)

Leases

The Company reviews contracts to determine if a contract meets the definition of a lease. This means that the Company has the right to control the use of an identifiable asset for a period of time in exchange for consideration.

All leases are accounted for by recognising a right-of-use asset and a lease liability except for:

- Leases of low value assets; and
- Leases with a duration of twelve months or less.

Lease liabilities are measured at the present value of the contractual payments due to the lessor over the lease term, with the discount rate determined by reference to the rate inherent in the lease unless (as is typically the case) this is not readily determinable, in which case the Company's incremental borrowing rate on commencement of the lease is used. Variable lease payments are only included in the measurement of the lease liability if they depend on an index or rate. In such cases, the initial measurement of the lease liability assumes the variable element will remain unchanged throughout the lease term. Other variable lease payments are expensed in the period to which they relate.

On initial recognition, the carrying value of the lease liability also includes:

- Amounts expected to be payable under any residual value guarantee;
- The exercise price of any purchase option granted in favour of the Company if it is reasonably certain to assess that option;
- Any penalties payable for terminating the lease, if the term of the lease has been estimated on the basis of the termination option being exercised.

Right-of-use assets are initially measured at the amount of the lease liability, reduced for anylease incentives received, and increased for:

- Lease payments made at or before commencement of the lease;
- Initial direct costs incurred; and
- The amount of any provision recognised where the Company is contractually required to dismantle, remove or restore the leased asset.

Subsequent to initial measurement, lease liabilities increase as a result of interest charged at a constant rate on the balance outstanding and are reduced for lease payments made. Right-of-use assets are amortised on a straight-line basis over the remaining term of the lease or over the remaining economic life of the asset if, rarely, this is judged to be shorter than the lease term.

1. Accounting policies (continued)

Leases (continued)

When the Company revises its estimate of the term of any lease (because, for example, it re-assesses the probability of a lessee extension or termination option being exercised), it adjusts the carrying amount of the lease liability to reflect the payments to make over the revised term, which are discounted at the same discount rate that applied on lease commencement. The carrying value of lease liabilities is similarly revised when the variable element of future lease payments dependent on a rate or index is revised. In both cases an equivalent adjustment is made to the carrying value of the right-of-use asset, with the revised carrying amount being amortised over the remaining (revised) lease term.

When the Company extends the scope of the lease and the extension was not part of the original terms of the contract, this is considered to be a lease modification and is treated as a separate additional lease.

Foreign currencies

Transactions in currencies other than pounds sterling are recorded at the rates of exchange prevailing at the dates of the transactions. At each reporting end date, monetary assets and liabilities that are denominated in foreign currencies are remeasured at the rates prevailing on the reporting end date. Gains and losses arising on remeasurement are included in the profit or loss for the period.

Equity instruments

Equity instruments are in the form of Ordinary and A Ordinary shares (further details are included in Note 17). Equity instruments issued by the Company are recorded at the proceeds received, net of direct issue costs. Costs that are not incremental and directly attributable to issuing new equity instruments are recorded as an expense in the consolidated statement of comprehensive loss.

1. Accounting policies (continued)

Rights to subscribe for additional equity

Some investors have the right to subscribe for a fixed number of A Ordinary shares at an agreed share price based on certain clinical and commercial milestones.

The value of the right to subscribe has been recognized as a derivative and classified within equity. The Company has adopted this accounting treatment as:

- the value of the instrument will vary in response to changes in the underlying value of the A Ordinary shares, representing a derivative financial instrument
- the right to subscribe is for a fixed number of shares at a fixed price, reflecting the definition of an equity instrument

When considering the fair value of the right to subscribe for additional equity, the most appropriate basis to allocate value to payments was determined to be a Black Scholes Model, with reference to the nature of the contract award and future liquidity events. The fair value of these rights considers the following factors:

- Exercise price
- Current price of the underlying shares
- Expected life of the award
- Risk-free interest rate
- Expected volatility
- Expected dividend rate
- Expected forfeiture rate

1. Accounting policies (continued)

Share options and other share-based payments

Some employees, directors and consultants receive remuneration in the form of share-based payments as consideration for their services rendered. The fair value of equity-settled share-based payments to employees is determined at the date of grant and is expensed on a straight-line basis over the vesting period, with a corresponding increase in equity, based on the Company's estimate of options that will eventually vest.

In respect of share-based payments to employees and directors, the estimated fair value of the options outstanding in the period was calculated by applying a Monte Carlo Simulation for those options issued in 2020 and a Black Scholes Model for those options issued in prior periods. The most appropriate approach is selected with reference to the share capital structure at the time of grant. In respect of the valuation for 2020, the Monte Carlo Simulation was deemed the most appropriate basis due to the preferential economic rights contained within equity issued in the year. When considering share-based payments to external consultants, the most appropriate basis to allocate value to payments was determined to be a Black Scholes Model, with reference to the nature of the contract award and future liquidity events. The fair value of share-based payments considers the following factors:

- Exercise price
- Current price of the underlying shares
- Expected life of the award
- Risk-free interest rate
- Expected volatility
- Expected forfeiture rate
- Expected dividend rate

1. Accounting policies (continued)

Accounting Standards

In preparing these financial statements, the Company has applied all relevant IAS, IFRS and International Financial Reporting Interpretations Committee ("IFRIC") Interpretations as of the date of approval of these financial statements and which are mandatory for the financial year ended December 31, 2020.

The following accounting standards, interpretations and amendments have been adopted as of January 1, 2020 in these financial statements and have not had a material impact on the Company's financial statements in the period of initial application, but may impact the accounting for future transactions:

- Amendments to The Conceptual Framework for Financial Reporting (effective from January 1, 2020)
- Amendments to IFRS 3 – Definition of a Business (effective from January 1, 2020)
- Amendments to IFRS 9, IAS 39, and IFRS 7 – Interest Rate Benchmark Reform (effective from January 1, 2020)
- Amendments to IAS 1 and IAS 8 – Definition of Material (effective from January 1, 2020)
- Amendment to IFRS 16 – Covid-19-Related Rent Concessions (effective from June 1, 2020)

The IASB and IFRIC have issued the following standards and amendments with an effective date after the date of these financial statements:

- Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 – Interest Rate Benchmark Reform, Phase 2 (effective from January 1, 2021)
- Amendments to IFRS 3 – Reference to the Conceptual Framework (effective from January 1, 2022)
- Amendments to IAS 16 Property, Plant and Equipment – Proceeds before Intended Use (effective from January 1, 2022)
- Amendments to IAS 37 – Onerous Contracts: Costs of Fulfilling a Contract (effective from January 1, 2022)
- IFRS 17 Insurance Contracts (effective from January 1, 2023)
- Amendments to IAS 1 Presentation of Financial Statements – Classification of Liabilities as Current or Non-Current (effective from January 1, 2023)
- Amendments to IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2 – Disclosure of Accounting Policies (effective from January 1, 2023)
- Amendments to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors – Definition of Accounting Estimates (effective from January 1, 2023)

The IASB has also issued the following amendments from the 2018-2020 annual improvement cycles with an effective date after the date of these financial statements:

- IFRS 1 – First-time Adoption of International Financial Reporting Standards – Subsidiary as a first-time adopter (effective from January 1, 2022)
- IFRS 9 Financial Instruments – Fees in the '10 per cent' test for derecognition of financial liabilities (effective from January 1, 2022)
- IAS 41 Agriculture – Taxation in fair value measurements (effective from January 1, 2022)

The Company has reviewed the above standards and amendments and considers that they either do not apply to the Company or will not have a material impact in future

periods.

2. Critical accounting estimates and judgements

In the application of the Company's accounting policies, management are required to make judgements, estimates and assumptions about the carrying amount of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised where the revision affects only that period, or in the period of the revision and future periods where the revision affects both current and future periods.

Judgements made in applying accounting policies other than those involving estimations

Revenue from contracts with customers

Identification of contracts with pharma partners

The Company has entered into collaboration agreements with a number of parties. Application of IFRS 15 "Revenue from contracts and customers" on collaboration agreements requires judgement around whether these contracts were within the scope of IFRS 15.

The Company's core business is around researching and developing immunotherapies and the contracts entered into with pharma partners are consistent with those objectives and the outputs are in line with the Company's ordinary activities.

The contracts with pharma partners do not involve sharing the risks and benefits of a joint arrangement in the sense of IFRS 11 "Joint arrangements".

In light of the nature of the work being undertaken with pharma partners, and the fact that these agreements have commercial substance with clearly defined milestones and rights and obligations for each party, management concluded that these collaboration agreements meet the definition of a contract with a customer and fall within the scope of IFRS 15.

Identification of performance obligations in contracts

The collaboration agreements entered into by the Company include obligations to fulfil the research and development programs. The Company identified, from reviews of the relevant agreements, that there are no specific obligations but an implied performance obligation to deliver each overall contracted research and development program. Reflecting the broad nature of these obligations, spanning the full duration of the contract, the obligations are satisfied over the expected duration of the relevant contract.

Determination and allocation of the transaction price

The collaboration agreements include a number of elements of consideration and are allocated to the satisfaction of the relevant obligation.

The Company can receive upfront payments as part of the consideration. The Company has determined that upfront payments are in connection with the performance of the research and development program and are satisfied during the duration of the contract.

The business is entitled to receive contractual milestone payments on achievement of certain performance obligations, with revenue being recognised in the same way. The relevant transaction price is allocated to the related milestone.

2. Critical accounting estimates and judgements (continued)

Assumptions about the future and other sources of estimation uncertainty

Revenue from contracts with customers

Timing of revenue recognition

Revenue from upfront payments in connection with collaboration agreements is recognised over the estimated term over which the services promised will be provided. This term was estimated by management at the inception of each contract and evaluated at the year end. The estimated time to complete as at the year end is 35 months.

The resulting deferred income liabilities are disclosed in Note 15. Due to the uncertainty around the time to complete multi-year collaboration programs it is possible that the estimated terms may be extended. If the estimated term of the current contracts had been adjusted by one year, then it would be expected that the corresponding revenue would have decreased by £588,888 and deferred income liabilities would have increased by £588,888. The business is entitled to receive contractual milestone payments on achievement of certain performance obligations. Due to significant uncertainties associated with the achievement of contractual milestones, no revenue has been recognised from milestone payments to date and these will be recognised when the milestones are certain to occur.

Valuation of ordinary shares

As there has been no public market for the Group's ordinary shares to date, the estimated fair value of the ordinary shares has been determined by management, considering

the most recently available third-party valuations of the Group's ordinary shares, and the 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.

After considering the market approach, the income approach and the asset-based approach, we utilized the market approach to determine the estimated fair value of our ordinary shares based on its determination that this approach was most appropriate for a clinical-stage biopharmaceutical company at this point in its development, using the option-pricing method ("OPM"). Consideration was given to the American Institute of Certified Public Accountants' Practice Aid: "Valuation of Privately-Held Company Equity Securities Issued as Compensation," or the Practice Aid, in addition to input from management, the likelihood of completing an IPO and recent transactions with investors.

Once a public trading market for our ordinary shares has been established in connection with the completion of this offering, it will no longer be necessary to estimate the fair value of our ordinary shares in connection with our accounting for share-based payment expenses, as the fair value of our ordinary shares will be determinable by reference to the trading price of our ordinary shares on Nasdaq.

Share option and other share-based payment assumptions

The determination of the value of share-based payments requires management to use professional expertise to arrive at assumptions to be used to calculate the value of the share-based payment. The estimated fair value of the options outstanding in the period was calculated by applying a Monte Carlo Simulation for those options issued in 2020 and a Black Scholes Model for those options issued in prior periods. The most appropriate approach is selected with reference to the share capital structure at the time of grant and the directors need to use judgement in setting the key assumptions. Further details are included in Note 18.

The Company determines the share price used in the fair value calculation by reference to shares issued close to the time of grant of the share options. Consideration is given to the nature of the shares issued and investors in the rounds when evaluating the share price as well as an assessment of any factors that were relevant and which may have changed from the date of the most recent share issuance to the date of grant. As a privately held company, the Company's share price does not have sufficient historical volatility to adequately assess the fair value of the share option grants. As a result, management considered the historical volatility of other comparable publicly traded companies and, based on this analysis, concluded that a volatility range of 70% to 75% was appropriate for the valuation of our share options.

The expected life of the option, beginning with the option grant date, was used in valuing our share options. The expected life used in the calculation of share-based payment expense is the time from the grant date to the expected exercise date. The life of the options, which is a subjective estimate that can materially alter the valuation, depends on the option expiration date, volatility of the underlying shares and vesting features.

IFRS 2 "Share-based Payment" requires the use of the risk-free rate of the country in which the entity's shares are principally traded with a remaining term equal to the expected life of the option. This should also be the risk-free interest rate of the country in whose currency the exercise price is expressed. The Company has applied the appropriate risk-free rate, based on 4-year, 3-year and 2-year UK government bond yields as at the respective grant dates.

3. Revenue

	Year ended December 31, 2020 £	Year ended December 31, 2019 £
Revenue from collaboration agreements	1,978,659	3,426,846

The terms of business for payment on satisfaction of a performance obligation are typically 30 -60 days.

Collaboration agreements entered into by the Company provide for the entity to work with a partner to carry out collaborative research and development work.

Performance obligations around upfront payments are deemed to be satisfied over the estimated life of the services promised to be provided. As at the period end the amount of the transaction price allocated to performance obligations that are unsatisfied totalled £5,823,192 (2019: £7,801,851). The Company expects to recognise this revenue on a straight-line basis over the estimated life of the contract (six years). This method reflects the nature of the collaboration agreements which run for a multi-year period, recognising the revenue in the period in which the research and development activities are performed. Additional information is provided in Note 3 regarding the determination and recognition of the transaction price.

Performance obligations in respect of contractual milestones are deemed to be satisfied when both parties agree the milestone has been met. Due to the uncertainties around contractual milestones, it is not possible to provide details around the amount of the transaction price allocated to performance obligations that are unsatisfied.

Revenue from reimbursement of research and development costs by collaboration partners is recognised as the costs are incurred.

Details of contract balances at the period end are provided in Note 21. Trade receivables are non-interest bearing. There are no significant financing components included in the contracts.

Amounts outstanding from customers at the year end totalled £Nil (2019: £107,750). The movement in the year reflects settlement of customer balances in the period.

4. Other income

	Year ended December 31, 2020 £	Year ended December 31, 2019 £
Grant income	547,928	1,163,624
Other income	21,272	397,642
	569,200	1,561,266

Grant income received in the year was represented by payments under the Coronavirus Job Retention Scheme. During the prior year grant income was received from the EU

under the Horizon 2020 program (£686,162) and the Scottish Government (£477,462) for funding in respect of specific research programs. Other income includes research and development tax credits totalling £6,772 (2019: £394,642).

5. Operating loss

Operating loss is stated after charging the following:

	Year ended December 31, 2020 £	Year ended December 31, 2019 £
Included in research and development costs:		
Depreciation of property, plant and equipment	784,099	636,826
Amortization of intangible assets	51,889	52,847
Amortization of right of use assets	172,987	160,638
Included in administrative expenses:		
Loss on foreign exchange	1,891	61,922
Depreciation of property, plant and equipment	42,649	32,253
Amortization of right of use assets	23,589	21,905

6. Finance costs

	Year ended December 31, 2020 £	Year ended December 31, 2019 £
Interest on lease liabilities	292,062	275,410
	292,062	275,410

7. Income tax credit

	Year ended December 31, 2020 £	Year ended December 31, 2019 £
Current tax		
Corporation tax credit	1,171,928	826,065
Total current tax credit	1,171,928	826,065
Reconciliation of loss before tax to the tax credit for the year		
Loss before tax	6,629,844	6,894,049
Loss on ordinary activities multiplied by the standard rate of tax of 19% (2019: 19%)	1,259,670	1,309,869
Non-deductible expenses	(4,556)	(3,821)
Deferred tax movement on unrecognised fixed asset differences	(157,728)	56,935
Deferred tax movement on unrecognised timing differences	2,660	2,616
Deferred tax movement on share-based payments	(152,895)	(158,800)
Deferred tax asset not recognised	(278,753)	(695,881)
Additional allowance in respect of enhanced R&D relief	868,918	667,671
Surrender of tax losses for R&D tax credit refund	(1,537,316)	(1,178,589)
R&D tax credits generated	1,171,928	826,065
Current tax credit	1,171,928	826,065

Included within corporation tax receivable are research and development tax credits of £5,485 (2019: £576,161) which are included within other income.

Factors affecting future tax

The Finance (No.2) Act 2015 reduced the main rate of UK corporation tax to 19%, effective from April 1, 2017. A further reduction in the UK corporation tax rate to 17% was expected to come into effect from April 1, 2020 (as enacted by Finance Act 2016 on September 15, 2016). However, legislation introduced in the Finance Act 2020 (enacted on July 22, 2020) repealed the reduction of the corporation tax, thereby maintaining the current rate of 19%. Deferred taxes on the balance sheet have been measured

at 19% (2019 – 19%) which represents the future corporation tax rate that was enacted at the balance sheet date.

The UK Budget 2021 announcements on March 3, 2021 included measures to support economic recovery as a result of the ongoing COVID-19 pandemic. These included an increase to the UK's main corporation tax rate to 25%, which is due to be effective from April 1, 2023. The Finance Bill 2021 was substantively enacted on May 24, 2021 and given Royal Assent on June 10, 2021. However as this was not substantively enacted at the balance sheet date this has not been reflected in the measurement of deferred tax balances at the period end.

If the company's deferred tax balances at the period end were remeasured at 25% this would result in the unrecognised deferred tax asset increasing by £1,139,000.

8. Employees

	Year ended December 31, 2020 Number	Year ended December 31, 2019 Number
Number of employees		
Average monthly number or persons (including directors) employed by the Company:		
Research and development	66	83
Management, administration and operations	13	11
	79	94

Management includes employees who are involved in both research and development and administrative operations.

	Year ended December 31, 2020 £	Year ended December 31, 2019 £
Staff costs – included in research and development		
Wages and salaries	3,443,726	3,663,845
Social security costs	386,063	411,114
Pension costs - defined contribution	130,339	145,223
Share based payments	316,259	373,414
	4,276,387	4,593,596
Staff costs – included in administrative expenses		
Wages and salaries	703,366	766,107
Social security costs	99,040	82,236
Pension costs - defined contribution	24,548	38,372
Share based payments	256,803	462,378
	1,083,757	1,349,093
Staff costs – combined		
Wages and salaries	4,147,091	4,429,952
Social security costs	485,102	493,350
Pension costs - defined contribution	154,887	183,595
Share based payments	573,062	835,792
Total staff costs	5,360,142	5,942,689

8. Employees (continued)

Directors' remuneration	Year ended December 31, 2020 £	Year ended December 31, 2019 £
Directors' remuneration in respect of qualifying services	967,651	676,557
Directors' employer's pension contributions	14,376	12,453
	982,027	689,010

The total remuneration of the highest paid or receivable by the highest paid director in the year ended December 31, 2020 was £365,194 (2019: £294,259). The Company pension contributions in respect of the highest paid director totalled £Nil for the year to December 31, 2020 (2019: £8,111). The highest paid director did not exercise any share options in the period. No other directors exercised share options in the period.

9. Basic and diluted loss per share

	Year ended December 31, 2020 £	Year ended December 31, 2019 £
Loss for the year	(5,457,916)	(6,067,984)
Basic and diluted weighted average number of shares outstanding	1,892,247	1,791,760
Basic and diluted loss per share	**(2.88)**	**(3.39)**

Basic loss per share is calculated by dividing the loss for the year attributable to the equity holders of the Company by the weighted average number of shares outstanding during the year.

The dilutive effect of potential shares through equity settled transactions were considered to be anti-dilutive as they would have decreased the loss per share and were therefore excluded from the calculation of diluted loss per share.

10. Intangible assets

	Software £	Patent and licence costs £	Total £
Cost			
At January 1, 2019	158,489	157,758	316,247
Additions	7,960	162,096	170,056
Disposals	(130,069)	(11,838)	(141,907)
At December 31, 2019	36,380	308,016	344,396
Additions	13,233	156,865	170,098
Disposals	-	-	-
At December 31, 2020	49,613	464,881	514,494
Amortization			
At January 1, 2019	108,236	8,823	117,059
Charge for the year	31,266	21,581	52,847
Disposals	(130,069)	(1,069)	(131,138)
At December 31, 2019	9,433	29,335	38,768
Charge for the year	13,582	38,307	51,889
Disposals	-	-	-
At December 31, 2020	23,015	67,642	90,657
Net book value			
At December 31, 2020	26,598	397,239	423,837
At December 31, 2019	26,947	278,681	305,628

The amortization charge for the year is recognised within research and development costs in the statement of comprehensive loss.

11. Property, plant and equipment

	Facility & Scientific Equipment £	Computer Equipment £	Office Equipment £	Total £
Cost				
At January 1, 2019	2,897,095	255,307	75,260	3,227,662
Additions	1,953,431	64,330	8,784	2,026,545
At December 31, 2019	4,850,526	319,637	84,044	5,254,207
Additions	32,311	1,414	1,176	34,901
At December 31, 2020	4,882,837	321,051	85,220	5,289,108
Depreciation				
At January 1, 2019	647,233	90,623	11,770	749,626

Charge for the year	563,937	89,413	15,729	669,079
At December 31, 2019	1,211,170	180,036	27,499	1,418,705
Charge for the year	721,642	88,356	16,752	826,750
At December 31, 2020	1,932,812	268,392	44,251	2,245,455
Net book value				
At December 31, 2020	2,950,025	52,659	40,969	3,043,653
At December 31, 2019	3,639,356	139,601	56,545	3,835,502

The depreciation charge for the year is recognised within research and development and administrative expenses in the statement of comprehensive loss. Refer to Note 6 for further details.

The net book value of property, plant and equipment held under sale and leaseback arrangements is £535,456 (2019: £744,977).

12. Trade and other receivables: due within one year

	2020	2019
	£	£
Trade receivables	-	107,750
Other receivables	5,822	9,031
VAT owed to the Company	53,796	3,349
Prepayments	230,718	242,406
Accrued income	-	952,060
	290,336	1,314,596

The fair value of trade and other receivables are not materially different to the book value. Accrued income represents grant income due to the Company as a result of costs incurred on grant funded projects.

13. Trade and other payables: due within one year

	2020	2019
	£	£
Trade payables	638,366	627,933
Other tax and social security	143,600	272,260
Accruals	919,136	478,402
Other payables	64,318	60,264
	1,765,420	1,438,859

The fair value of trade and other payables are not materially different to the book value.

14. Lease liabilities and similar

Maturity analysis of leases and similar

December 31, 2020	Undiscounted lease payments	**Interest**	**Present value**
	£	£	£
Not later than one year	693,568	250,866	442,702
Between one year and five years	2,094,976	645,725	1,449,251
More than five years	1,340,753	207,604	1,133,149
	4,129,297	1,104,195	3,025,102

December 31, 2019	Undiscounted lease payments	**Interest**	**Present value**
	£	£	£
Not later than one year	703,337	288,707	414,630
Between one year and five years	2,341,528	778,098	1,563,430
More than five years	1,788,059	327,598	1,460,461
	4,832,924	1,394,403	3,438,521

14. Lease liabilities and similar (continued)

The balances relating to lease liabilities and similar can be further analysed as follows:

Lease liabilities

December 31, 2020	Undiscounted lease payments £	Interest £	Present value £
Not later than one year	452,367	214,429	237,938
Between one year and five years	1,797,426	627,316	1,170,110
More than five years	1,340,753	207,604	1,133,149
	3,590,546	1,049,349	2,541,197

December 31, 2019	Undiscounted lease payments £	Interest £	Present value £
Not later than one year	452,368	233,909	218,459
Between one year and five years	1,802,778	723,253	1,079,525
More than five years	1,788,059	327,598	1,460,461
	4,043,205	1,284,760	2,758,445

The principal leasing activities undertaken by the Company relate to the lease of property for the business.

Interest expense on the lease liabilities recognised within finance costs was £292,062 (2019: £275,410). An incremental borrowing rate of 8.60% has been applied to leases during the reporting period. An incremental borrowing rate of 10.65% was applied at the date of initial application. Total cash outflows in the period in relation to leases are noted in the cash flow statement.

In addition, the Company undertakes some sale and leaseback transactions to secure financing. From a review of the sale and leaseback agreements, it is deemed that as no formal sale has occurred the Company continues to recognise the asset on the balance sheet with a corresponding liability stated at amortised cost. Liabilities in relation to sale and leaseback transactions totalled £483,905 (2019: £680,076) and are included in the above tables. There were no gains or losses recognised on sale and leaseback transactions in the period.

Sale and leaseback arrangements

In addition, the Company undertakes some sale and leaseback transactions to secure financing. From a review of the sale and leaseback agreements, it is deemed that as no formal sale has occurred the Company continues to recognise the asset on the balance sheet with a corresponding liability stated at amortised cost. There were no gains or losses recognised on sale and leaseback transactions in the period.

December 31, 2020	Undiscounted lease payments £	Interest £	Present value £
Not later than one year	241,200	36,437	204,763
Between one year and five years	297,550	18,408	279,142
	538,750	54,845	483,905

14. Lease liabilities and similar (continued)

December 31, 2019	Undiscounted lease payments £	Interest £	Present value £
Not later than one year	250,969	54,798	196,171
Between one year and five years	538,750	54,845	483,905
	789,719	109,643	680,076

Set out below are the carrying amounts of right-of-use assets recognised and the movements during the period:

	Buildings £	Other £	Total £
At January 1, 2019	893,128	18,488	911,616
Additions	1,049,603	-	1,049,603
Charge for the year	(178,434)	(4,109)	(182,543)
At December 31, 2019	1,764,297	14,379	1,778,676
At January 1, 2020	1,764,297	14,379	1,778,676
Charge for the year	(192,468)	(4,108)	(196,576)
At December 31, 2020	1,571,829	10,271	1,582,100

The following amounts are recognised in the profit and loss:

	Year ended December 31, 2020 £	Year ended December 31, 2019 £
Amortization of right of use assets	196,576	182,543
Interest on lease liabilities	292,062	275,410
	488,638	457,953

Total cash outflows in respect of leases were £415,273 (2019: £184,401). Receipt of cashflows in respect of sale and leaseback transactions totalled £Nil (2019: 319,937). Total cash outflows in respect of interest on leases were £290,208 (2019: £87,468).

15. Deferred income

Year ended December 31, 2020

	Contracts with customers £
At January 1, 2020	7,801,851
Released to the statement of profit or loss	(1,978,660)
At December 31, 2020	5,823,191
Current	1,978,665
Non-current	3,844,526

Year ended December 31, 2019

	Contracts with customers £
At January 1, 2019	9,832,596
Released to the statement of profit or loss	(2,030,745)
At December 31, 2019	7,801,851
Current	2,030,746
Non-current	5,771,105

Movement in the period reflects the release of deferred income in respect of the long term research and development collaboration agreements. There have been no significant changes in the year.

16. Deferred taxation

The Company has not recognised a deferred tax asset in respect of tax losses carried forward and other timing differences as at December 31, 2020 on the basis that the timing during which the tax losses and other timing differences could be regarded as recoverable against future taxable profits cannot be determined with reasonable certainty.

The Company has tax losses carried forward of £12,793,486 (2019: £11,337,158) that are available for offset against future taxable profits.

The unrecognised deferred tax asset at 19% mainly consists of losses of £2,430,762 (2019 at 17%: £1,927,000) and share based payment temporary differences of £1,219,680 (2019 at 17%: £954,491).

17. Share capital and reserves

	2020 £	2019 £
Share capital	1,781,465	1,781,375
Share premium	11,095,365	11,095,365

	12,876,830	12,876,740

	2020 Number	2019 Number
Authorised, allotted, called up and fully paid share capital comprises:		
Ordinary shares of £1.00 each	1,781,301	1,781,301
A Ordinary shares of £0.001 each	164,502	73,890
Total Ordinary share outstanding at the end of the period	1,945,803	1,855,191

	Number of shares	Share capital £	Share premium £
Fully paid share capital:			
Balance at December 31, 2019	1,855,191	1,781,375	11,095,365
Issue of A Ordinary shares	90,612	90	3,665,455
Balance at December 31, 2020	1,945,803	1,781,465	14,760,820

Ordinary shares

The Ordinary shares have no specific rights, preferences or restrictions attached to them.

A Ordinary shares

The A Ordinary shares rank equally with all other shares in issue in that on a vote every member has one vote for each share held. In August 2020 the Company issued 90,612 A ordinary shares at £43.00 each. The A ordinary shares contain preferential economic rights such that, in the event of a share or asset sale (as defined in the Articles of association), they provide a return to the holders of the A Ordinary Shares of an amount greater than or equal to 1.5x the price paid by the investors for A Ordinary Shares. The A Ordinary shares have an anti-dilution provision where shares are subsequently issued at a price below £43 per share, whereby the existing A Ordinary shareholders receive additional compensation shares in line with the formula set out in the Articles of association. The A Ordinary shares rank equally with all other shares in issue with respect to dividends.

The August 2020 A Ordinary shares included an additional right to subscribe for a fixed number (79,454) of shares at £43 per share at a future date based on certain clinical and commercial milestones. The estimated fair value of the right to subscribe was calculated by applying a Black Scholes Model. This was deemed the most appropriate approach due to the future liquidity event being date-uncertain and could take one of many forms.

The increase in share premium in the year is stated net of legal and associated fundraising costs totalling £233,404 including £180,000 settled by share-based payments.

18. Share-based payments

The Company operates an HMRC Approved Enterprise Management Incentive (EMI) share option scheme for employees. Effective 16 December 2014, the Company approved a share option scheme under which the Board of Directors of the Company can award options to directors, officers, employees and consulting personnel of the Company. The Board of Directors will determine the terms, limitations, restrictions and conditions of the options granted under the plan.

The Company has granted options over shares to certain employees. The Company has one stock option plan: the TC BioPharm Limited Enterprise Management Incentive Plan 2014.

	Number of share options	Weighted average exercise price £
Outstanding at December 31, 2019	496,674	4.19
Granted during the period	46,549	10.75
Exercised during the period	-	-
Forfeited during the period	(10,300)	13.06
Outstanding at December 31, 2020	532,923	4.59
Exercisable at December 31, 2020	532,923	4.59
Unexercisable at December 31, 2020	-	-

	Number of share options	Weighted average exercise price £
Outstanding at January 1, 2018	422,105	1
Granted during the period	82,319	20.71
Exercised during the period	-	-
Forfeited during the period	(7,750)	5.96
Outstanding at December 31, 2019	496,674	4.19
Exercisable at December 31, 2019	449,274	3.22
Unexercisable at December 31, 2019	47,400	13.37

The estimated fair value of the options outstanding in the period was calculated by applying a Monte Carlo Simulation for those options issued in 2020 and 2019 and a Black

Scholes Model for those options issued in prior periods. The most appropriate approach is selected with reference to the share capital structure at the time of grant. The weighted average fair value of the options at the measurement date was £11.78 (2019: £12.20). The expense recognised for share-based payments in respect of employee services received during the period to December 31, 2020 is £573,062 (2019: £835,792).

18. Share-based payments (continued)

The model inputs were as follows:

	2020	2019
Weighted average share price	£ 21.60	£ 38.49
Expected volatility	75%	70%
Risk free interest rate	0.01%	0.50%
Expected option life	1 year	2 years
Dividend yield	0.0%	0.0%

The weighted average remaining contractual life of the options at December 31, 2020 is 7 years (2019: 8 years).

As a privately held company, the Company's share price does not have sufficient historical volatility to adequately assess the fair value of the share option grants. As a result, management considered the historical volatility of other comparable publicly traded companies and, based on this analysis, concluded that a volatility of 75% was appropriate for the valuation of our share options.

As part of the valuation exercise reference was made to historical share issue prices, taking into account discounts for lack of control and marketability.

The options granted under the EMI share option scheme will typically vest between one and two years after the date of grant. The exception is options granted to senior management that vest immediately. As at the year end all options had fully vested. As at December 31, 2019, the unvested options would, under the agreed terms, vest within one year.

Upon vesting, each option entitles the holder to purchase one ordinary share at a specified option price determined at the grant date.

The Company also received services provided by a consultancy business that were settled by providing a right to subscribe for 23,255 A Ordinary shares at an exercise price of £43.00 per share at a future date, based on certain performance conditions being satisfied. The estimated fair value of the right to subscribe was calculated by applying a Black Scholes Model. This was deemed the most appropriate approach due to the future liquidity event being date-uncertain and could take one of many forms. The share-based payment charge totalled £411,652 (2019: £Nil).

The model inputs were as follows:

	2020	2019
Weighted average share price	£ 41.60	-
Expected volatility	70%	-
Risk free interest rate	0.3%	-
Expected option life	1.33 years	-
Dividend yield	0.0%	-

19. Related party transactions

The directors and senior executives who have the authority and responsibility for planning, directing and controlling the entity are considered to be key management personnel. Total remuneration in respect of these individuals is disclosed in the table below:

	2020 £	2019 £
Short-term employee benefits	982,027	688,325
Share-based payments	287,444	444,941
	1,269,471	1,133,266

During the years ended December 31, 2019 and 2020, the Company made purchases of cell culture media from Cell Science & Technology Institute, Inc., a company in which significant shareholder NIPRO Corporation (Osaka, Japan), has a significant interest in the amount of £79,826 and £30,775 respectively.

During the years ended December 31, 2019 and 2020, the Company used consultancy services from Theraldia Consulting Limited a company in which Dr Alan Clark has a significant interest in the amount of £13,068 and £22,621 respectively.

During the years ended December 31, 2019 and 2020, the Company used consultancy services from Dr Alan Clark to the amount of £31,784 and £Nil respectively.

During the year ended December 31, 2020, the executive directors agreed to defer a proportion of their compensation. Repayment of deferred compensation would be

initiated on receipt of an agreed level of funding to support the future capital requirements of the business and settlement would be staged over twelve months. As at December 31, 2020 the balance outstanding to executive directors totalled £253,338.

20. Notes to the cash flow statement

	2020 £	2019 £
Cash and bank balances	748,015	956,495

Cash and cash equivalents comprise cash and short-term bank deposits with an original maturity of three months or less. The carrying amount of these assets is approximately equal to their fair value. Cash and cash equivalents at the end of the reporting period as shown in the statement of cash flows can be reconciled to the related items in the reporting position as shown above.

21. Financial instruments and risk management

The Company's principal financial instruments comprise trade and other receivables, cash and cash equivalents and trade and other payables. The main purpose of these financial instruments is to manage the Company's working capital for its operations. The Company's activities and current position do not expose it to significant financial risks, however the directors review and agree policies for monitoring and managing such risks on an ongoing basis.

Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's receivables from customers and from its financing activities, including deposits with banks and financial institutions, foreign exchange transactions and other financial instruments. The Company only engages with banks and financial institutions with a Standard and Poor credit rating of BBB or greater.

The Company has a small number of customers as part of its collaboration agreements. To manage the credit risks around collaboration agreements the Company will assess the creditworthiness of partners as part of the engagement process.

The Company has monitoring procedures in place to identify and follow up on any overdue debts.

Credit risk from balances with banks and financial institutions is managed by the Company's finance department in accordance with the Company's policy to only place funds with approved counterparties with the appropriate credit rating.

The Company is exposed to no material credit risk.

Liquidity risk

Liquidity risk is the risk that necessary sources of funding for the Company's business activities may not be available.

The Company manages liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

The Company is utilising shareholder funds, collaboration agreements, grant funding and asset finance to support its working capital requirements.

All cash funds are held with a maturity of three months or less.

Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: interest rate risk, currency risk and other price risk, such as equity price risk and commodity risk.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Company is exposed to no material interest rate risk.

Currency risk

Foreign currency risk is the risk that the fair value or future cash flows of an exposure will fluctuate because of changes in foreign exchange rates. The impact of the Company's exposure to foreign currency is not considered to be material to the overall results. The Company is currently not exposed to material foreign exchange risk.

21. Financial instruments and risk management (continued)

Other price risk

The Company is not exposed to material other price risks with regard to areas such as commodities or equity.

The following are the remaining contractual maturities of financial liabilities at the reporting date. The amounts are gross and undiscounted, and include estimated interest repayments.

Contractual cash flows

December 31, 2020 **Non-derivative financial liabilities**	**Carrying amounts** **£**	**Total** **£**	**2 months or less** **£**	**2-12 months** **£**	**12-24 months** **£**	More than 2 years **£**
Trade payables	638,366	638,366	638,366	-	-	-
Other payables	1,124,411	1,124,411	749,607	374,804	-	-
	1,762,777	1,762,777	1,387,973	374,804	-	-

December 31, 2019 **Non-derivative financial liabilities**	**Carrying amounts** **£**	**Total** **£**	**2 months or less** **£**	**2-12 months** **£**	**12-24 months** **£**	**More than 2 years** **£**
Trade payables	627,933	627,933	627,933	-	-	-
Other payables	808,283	808,283	538,855	269,428	-	-
	1,436,216	1,436,216	1,166,788	269,428	-	-

Changes in liabilities arising from financing activities

	January 1, 2020 **£**	**Cash flows** **£**	**New leases** **£**	**Other** **£**	**December 31, 2020** **£**
Current lease liabilities	414,630	(415,273)	-	443,345	442,702
Non-current lease liabilities	3,023,891	-		(441,491)	2,582,400
	3,438,521	(415,273)	-	1,854	3,025,102

	January 1, 2019 **£**	**Cash flows** **£**	**New leases** **£**	**Other** **£**	**December 31, 2019** **£**
Current lease liabilities	266,277	(184,401)	-	332,754	414,630
Non-current lease liabilities	1,799,163	-	1,369,540	(144,812)	3,023,891
	2,065,440	(184,401)	1,369,540	187,942	3,438,521

21. Financial instruments and risk management (continued)

The 'Other' column includes the effect of reclassification of non-current portion lease liabilities to current due to the passage of time and the effect of accrued but not yet paid interest on lease liabilities. The Company classifies interest paid as cash flows from operating activities.

22. Capital risk management

The Company is not subject to any externally imposed capital requirements.

For the purpose of the Company's capital management, capital includes issued share capital, share premium and all other equity reserves attributable to the equity holders of the parent.

The Company's objective when managing capital is to safeguard the Company's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

The Company manages its capital structure and makes adjustments in light of changes in economic conditions and the requirement of investors. To maintain or adjust the capital structure, the Company may adjust the dividend paid to shareholders, return capital to shareholders or issue new shares.

23. Subsequent events

In January 2021, the Company issued a further 4,784 A Ordinary shares at £43 per share raising gross proceeds of £205,712. There were no associated fundraising costs..

In April and June 2021, the Company issued further 4,172 A Ordinary shares at £43 per share raising gross equity investment totalling £179,396. Costs deducted as part of the fundraising totalled £20,845.

As part of the funding strategy ahead of the planned initial public offering later in 2021, the Company obtained shareholder approval, in April 2021, to issue convertible loan notes with a face value totalling $20,000,000. The loan note is issued with a 50% discount. At the time of a listing, 50% of the face value of loan notes in issue at the time convert to equity in the listed entity at the lower of an entity valuation of $120,000,000 or the value placed on the Company upon listing. The remaining loan notes are repayable or convertible (at the same value) at the loan note holders' option in two equal tranches at 90 days and 180 days after the listing date. As at the date of the approval of the consolidated financial statements the Company had issued convertible loan notes with a face value of $5,266,700. In the event of an act of default (including if the

Company does not list despite its and its bankers' efforts before December 15, 2021) the outstanding notes become repayable at their face value.

On June 8, 2021, the Company established a wholly owned subsidiary, TC BioPharm (North America) Inc., in Delaware, United States of America. This Company has not yet traded, although it has appointed and is compensating its director, who is the newly appointed US resident CEO of our planned post-listing US operations, Mr Bryan Kobel. It is anticipated that Mr Kobel will join the board of the listed entity upon listing and will serve as the group chief executive officer from that date, with the current CEO, Dr Michael Leek, acting as group executive chairman.

None of the above events are considered to be adjusting post balance sheet events.

[Insert back cover from Underwriter]

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 6. Indemnification of Directors and Officers

Scottish law does not limit the extent to which a company's articles of association may provide indemnification of officers and directors, except to the extent that it may be held by the Scottish and United Kingdom courts to be contrary to public policy, such as providing indemnification against civil fraud or the consequences of committing a crime.

Our Memorandum and Articles of Association provide that, to the maximum extent permitted by law, every current and former director and officer (excluding an auditor) is entitled to be indemnified out of our assets against any liability, action, proceeding, claim, demand, costs, damages or expenses, including legal expenses, which such indemnified person may incur in that capacity unless such liability arose as a result of the actual fraud or willful default.

A company formed under the laws of Scotland may also purchase insurance for directors and certain other officers against liability incurred as a result of any negligence, default, breach of duty or breach of trust in relation to the company. We expect to maintain director's and officer's liability insurance covering our directors and officers with respect to general civil liability, including liabilities under the Securities Act of 1933, as amended (or the "Securities Act"), which he or she may incur in his or her capacity as such. We have entered into a deed of indemnity with each of our directors and members of our senior management, each of which provides the office holder with indemnification permitted under applicable law and to the extent that these liabilities are not covered by directors and officers insurance.

The form of underwriting agreement to be filed as Exhibit 1.1 to this registration statement will provide for indemnification by the underwriter of the registrant and its directors and officers for certain liabilities, including liabilities arising under the Securities Act, but only to the extent that these liabilities are caused by information relating to the underwriter that was furnished to us by the underwriter in writing expressly for use in this registration statement and certain other disclosure documents.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us under the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 7. Recent Sales of Unregistered Securities

Set forth below is information regarding share capital issued by TC BioPharm Limited since January 1, 2018. Some of the transactions described below involved directors, officers and 5% shareholders and are more fully described under the section titled "Related Party Transactions".

- On December 17, 2018, the Company issued an aggregate of 17,494 ordinary shares to 19 accredited investors and insiders at a purchase price of £35.696 per share for aggregate consideration totaling £624,500 in respect of satisfying a convertible loan note.
- In November 2019, the Company issued an aggregate of 73,439 A ordinary shares to 25 accredited investors and insiders at a purchase price of £43.00 per share for aggregate cash consideration totaling £3,157,877.
- From December 2019 until July 2020, the Company issued an aggregate of 11,609 A ordinary shares to 8 accredited investors and insiders at a purchase price of £43.00 per share for aggregate cash consideration totaling £499,187.
- On August 25, 2020, the Company issued an aggregate of 79,454 A ordinary shares to 14 accredited investors and insiders at a purchase price of £43.00 per share for aggregate cash consideration totaling £3,416,522.

- On January 18, 2021, the Company issued an aggregate of 133 A ordinary shares to one accredited investor and insider at a purchase price of £43.00 per share for aggregate cash consideration totaling £5,719.
- On January 19, 2021, the Company issued an aggregate of 4,651 A ordinary shares to one accredited investor and insider at a purchase price of £43.00 per share for aggregate cash consideration totaling £199,993.
- On April 30, 2021, the Company issued an aggregate of 2,326 A ordinary shares to one accredited investor and insider at a purchase price of £43.00 per share for aggregate consideration totaling £100,018.
- On April 30, 2021, the Company issued an aggregate of 1,846 A ordinary shares to one accredited investor and insider at a purchase price of £43.00 per share for aggregate consideration totaling £79,378.

From April 2021 to September 2021, the Company issued convertible loan notes with a face value amount of $9,987,872. The loan note was issued with a 50% discount. At the time of a listing, 50% of the face value of loan notes outstanding at the time convert to equity in the listed entity at the lower of an entity valuation of $120,000,000 or the value placed on the Company upon listing. The remaining balance of the loan notes are repayable or convertible (at the same value) at the loan note holders' option in two equal tranches at 90 days and 180 days after the listing date. In the event of an act of default (including if the Company does not list despite its and its bankers' efforts before December 15, 2021) the outstanding notes become repayable at their face value.

The offers, sales and issuances of the securities and loan notes described above were exempt from registration either (i) under Section 4(a)(2) of the Securities Act in

that the transactions did not involve any public offering, (ii) under Rule 701 promulgated under the Securities Act in that the transactions were under compensatory benefit plans and contracts relating to compensation or (iii) under Regulation S promulgated under the Securities Act in that offers, sales and issuances were not made to persons in the United States and no directed selling efforts were made in the United States.

Item 8. Exhibits and Financial Statement Schedules

Exhibits:

Exhibit No.	Description
1.1	Form of Underwriting Agreement □
3.1	Form of Memorandum and Articles of Association dated ____2021, effective prior to the re-registration of the registrant as a public limited company □
3.2	Form of Memorandum and Articles of Association to be effective with the completion of this offering □
4.1	Specimen certificate evidencing ordinary shares □
4.2	Description of securities of the registrant □
4.2	Form of Representative Warrant to acquire ordinary shares □
5.1	Opinion of Addleshaw Goddard as to matters of the law of Scotland and the United Kingdom □
10.1	Form of XXX Stock Option Plan □
10.2	Form of 2021 Stock Option Plan □
10.4	Form of Deed of Indemnity between registrant and each officer and director □
10.5	TC BioPharm (Holdings) Limited Agreement to top up shares with investors □
10.6	Form of Special Eligibility Agreement for Securities between Registrant and Depository Trust Company □
11.1	Code of Ethics of the registrant □
21.1	List of Subsidiaries of registrant □
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm □
23.2	Consent of Addleshaw Goddard (included in Exhibit 5.1) □
24.1	Power of Attorney (included as part of the signature page of original filed Registration Statement)

* Filed Herewith

** Previously filed herewith.

□ To be filed by amendment.

\+ Indicates management contract or compensatory plan.

Schedules:

None

Item 9. Undertakings

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high and of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) To file a post-effective amendment to the registration statement to include any financial statements required by Item 8.A. of Form 20-F at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Act need not be furnished, provided that the registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (a)(4) and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements.

(5) That, for the purpose of determining liability of the Registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned Registrant undertakes that in a primary offering of securities of the undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

i. Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;

ii. Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned Registrant;

iii. The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned Registrant; and

iv. Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

(6) Insofar as indemnification for liabilities arising under the Securities Act, may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act, and will be governed by the final adjudication of such issue.

(7) For determining liability of the undersigned registrant under the Securities Act to any purchaser:

(i) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed to be part of this Registration Statement as of the time it was declared effective.

(ii) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies it has reasonable grounds to believe that it meets all of the requirements for filing this registration statement on Form F-1 with the Securities and Exchange Commission and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in ____, the, on ___, 2021.

TC BIOPHARM (HOLDINGS) LIMITED

By: _____
Dr. Michael Leek
Chief Executive Officer and Chairman of the Board

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints _____ and _____, and each of them, as his or her true and lawful attorney-in-fact and agent with full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments or any abbreviated registration statement and any amendments thereto filed pursuant to Rule 462(b) increasing the number of securities for which registration is sought), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact, proxy and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact, proxy and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
Dr. Michael Leek	Chief Executive Officer and Chairman of the Board (Principal Executive Officer)	
Martin Thorp	Chief Financial Officer (Principal Financial and Accounting Officer)	
Angela Scott	Chief Operating Officer	
Dr. Alan Clark	Chief Technical Officer	

Director

Kimihito Minoura

Director

Lorraine Porter

SIGNATURE OF AUTHORIZED U.S. REPRESENTATIVE OF THE REGISTRANT

Pursuant to the Securities Act of 1933, the undersigned, the duly authorized representative in the United States of the registrant has signed this registration statement or amendment thereto on _____, 2021.

TC BioPharm (North America), Inc.

By:
Name: Bryan Kobel
Title: Chief Executive Officer

Authorized Representative in the United States

Index to Exhibits

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Schedules:

None