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

FORM 20-F

(mark one)

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

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended January 31, 2018
OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from _____ to_____
OR

☐ **SHELL COMPANY PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
Date of event requiring this shell company report _____
Commission file number: 001-36866

Summit Therapeutics plc
(Exact name of Registrant as specified in its charter)

England and Wales
(Jurisdiction of incorporation or organization)
136a Eastern Avenue
Milton Park, Abingdon
Oxfordshire OX14 4SB
United Kingdom
(Address of principal executive offices)

Glyn Edwards, Chief Executive Officer
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Tel: +44 (0)1235 443 939
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(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)
Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Name of each exchange on which registered
American Depositary Shares, each representing 5 Ordinary Shares, par value £0.01 per share	**The Nasdaq Stock Market LLC**

Securities registered or to be registered pursuant to Section 12(g) of the Act.
None
Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.
None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.
73,563,624 ordinary shares, par value £0.01 per share
Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒
If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes ☐ No ☒
Note—checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of "large accelerated filer,"accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act (check one):

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

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

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

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 ☐ Item 18 ☐
If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

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GENERAL INFORMATION

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

The trademarks, trade names and service marks appearing in this Annual Report on Form 20-F are the property of their respective owners.

PRESENTATION OF FINANCIAL AND OTHER DATA

The consolidated financial statement data as of January 31, 2018 and 2017 and for the three years ended January 31, 2018, 2017 and 2016 have been derived from our consolidated financial statements, as presented at the end of this Annual Report, which have been prepared in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or IASB, and as adopted by the European Union and audited in accordance with the standards of the Public Company Accounting Oversight Board (United States).

All references in this Annual Report to "$" are to U.S. dollars and all references to "£" are to pounds sterling. Solely for the convenience of the reader, unless otherwise indicated, all pounds sterling amounts as of and for the year ended January 31, 2018 have been translated into U.S. dollars at the rate at January 31, 2018, the last business day of our fiscal year ended January 31, 2018, of £1.00 to $1.4190. These translations should not be considered representations that any such 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.

FORWARD-LOOKING STATEMENTS

This Annual Report contains forward-looking statements that involve substantial risks and uncertainties. All statements contained in this Annual Report, other than statements of historical fact, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. The forward-looking statements in this Annual Report include, among other things, statements about:

- the timing and conduct of our clinical trials of ezutromid (formerly SMT C1100) for the treatment of patients with Duchenne muscular dystrophy and ridinilazole (formerly SMT19969) for the treatment of patients with *Clostridium difficile* infection, including statements regarding the timing of initiation and completion of the clinical trials and the period during which the results of the clinical trials will become available;
- the timing of and our ability to obtain marketing approval of ezutromid and ridinilazole, and the ability of ezutromid and ridinilazole to meet existing or future regulatory standards;
- our plans to continue the research and development of the F3 formulation of ezutromid, the F6 formulation of ezutromid and future generation utrophin modulators that we are developing in collaboration with the University of Oxford and Sarepta Therapeutics, Inc., or Sarepta;
- our plans to conduct research and development and advance potential new mechanism antibiotic compounds identified and developed under our bacterial genetics-based discovery and development platform;
- the potential benefits and future operation of our collaboration with Sarepta;
- the potential benefits and future operation of our collaboration with the Biomedical Advanced Research and Development Authority, or BARDA;
- the potential benefits and future operation of our license and commercialization agreement with Eurofarma Laboratórios SA;
- the potential benefits of our acquisition of Discuva Limited, or Discuva, including the future operations of the acquired bacterial genetics-based discovery and development platform;
- our plans with respect to possible future collaborations and partnering arrangements;

- our plans to pursue research and development of other future product candidates;
- the potential advantages of ezutromid and ridinilazole;
- the rate and degree of market acceptance and clinical utility of ezutromid and ridinilazole;
- our estimates regarding the potential market opportunity for ezutromid and ridinilazole;
- our sales, marketing and distribution capabilities and strategy;
- our ability to establish and maintain arrangements for manufacture of ezutromid and ridinilazole;
- our intellectual property position;
- our estimates regarding expenses, future revenues, capital requirements and needs for additional financing;
- the impact of government laws and regulations; and
- our competitive position.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this Annual Report, particularly in the "Risk Factors" section in this Annual Report, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

You should read this Annual Report and the documents that we have filed as exhibits to this Annual Report completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements.

PART I

Item 1: Identity of Directors, Senior Management and Advisers

Not applicable.

Item 2: Offer Statistics and Expected Timetable

Not applicable.

Item 3: Key Information

A. Selected Financial Data

The following table summarizes our consolidated financial data as of the dates and for the periods indicated. The consolidated financial statement data as of January 31, 2018 and 2017 and for the years ended January 31, 2018, 2017 and 2016 have been derived from our consolidated financial statements, as presented at the end of this Annual Report, which have been prepared in accordance with IFRS, as issued by the IASB, and as adopted by the European Union and audited in accordance with the standards of the Public Company Accounting Oversight Board (United States). The consolidated financial statement data as of January 31, 2016, 2015 and 2014 and for the years ended January 31, 2015 and 2014 have been derived from our consolidated financial statements, which are not presented herein, which have also been prepared in accordance with IFRS as issued by the IASB, and as adopted by the European Union and audited in accordance with the standards of the Public Company Accounting Oversight Board (United States).

Our consolidated financial statements are prepared and presented in pounds sterling, our presentation currency. Solely for the convenience of the reader, our consolidated financial statements as of and for the year ended January 31, 2018 have been translated into U.S. dollars at £1.00 to $1.4190 based on the foreign exchange rates published by the Federal Reserve Bank of New York for January 31, 2018. Such convenience translations should not be construed as a representation that the pound sterling amounts have been or could be converted into U.S. dollars at this or at any other rate of exchange, or at all.

Our historical results are not necessarily indicative of the results that may be expected in the future. The following selected consolidated financial data should be read in conjunction with our audited consolidated financial statements included at the end of this Annual Report and the related notes and Item 5, “Operating and Financial Review and Prospects” below.

Selected Consolidated Income Statement Data

	Year Ended January 31,					
	2018	2018	2017	2016	2015	2014
	(in thousands, except per share data)					
Revenue	$ 36,070	£ 25,419	£ 2,304	£ —	£ —	£ —
Other operating income	3,867	2,725	72	1,281	1,888	1,526
Operating loss	(18,198)	(12,825)	(24,853)	(20,346)	(12,233)	(7,027)
Finance income	4,393	3,096	8	30	51	9
Finance cost	(1,652)	(1,164)	(862)	(2,879)	(499)	(385)
Income tax credit	5,338	3,762	4,336	3,058	1,297	607
Loss for the period	(10,119)	(7,131)	(21,371)	(20,137)	(11,384)	(6,796)
Basic and diluted loss per ordinary share from continuing operations	$ (0.15)	£ (0.11)	(0.35)	(0.34)	(0.29)	(0.33)
Weighted average number of shares outstanding (in thousands)	65,434	65,434	61,549	59,102	39,599	20,510

Selected Consolidated Balance Sheet Data

	As of January 31,					
	2018	2018	2017	2016	2015	2014
			(in thousands)			
Cash and cash equivalents	$ 28,525	£ 20,102	£ 28,062	£ 16,304	£ 11,265	£ 2,030
Working capital[1]	(4,478)	(3,156)	(5,621)	1,327	359	(816)
Total assets	76,573	53,962	37,587	25,057	19,396	7,295
Accumulated losses reserve	(114,794)	(80,898)	(73,767)	(52,396)	(32,259)	(47,166)
Total equity/(deficit)	$ 14,012	£ 9,875	£ (3,493)	£ 16,080	£ 12,962	£ 2,779

(1) We define working capital as prepayments and other receivables (including current tax receivables) less current liabilities.

Exchange Rate Information

The table below shows the period end, average, high and low exchange rates of U.S. dollars per pound sterling published by the Federal Reserve Bank of New York for the periods shown. The exchange rate on April 6, 2018 was £1.00 to $1.409. The rates set forth below are provided solely for your convenience and may differ from the actual rates used in the preparation of our consolidated financial statements included in this Annual Report.

	Period End[1]	Average[2]	Low	High
		($ per pound sterling)		
Fiscal Year Ended January 31:				
2014	1.645	1.572	1.484	1.661
2015	1.503	1.634	1.502	1.717
2016	1.418	1.518	1.417	1.588
2017	1.259	1.331	1.212	1.469
2018	1.419	1.301	1.215	1.426
Month Ended:				
October 2017	1.328	1.320	1.306	1.133
November 2017	1.351	1.322	1.307	1.351
December 2017	1.353	1.340	1.332	1.353
January 2018	1.419	1.382	1.351	1.426
February 2018	1.379	1.396	1.379	1.413
March 2018	1.403	1.398	1.376	1.424
April 2018 (through April 6, 2018)	1.409	1.405	1.399	1.409

(1) In the event that the period end fell on a day for which data are not available, the exchange rate on the prior most recent business day is given.

(2) The average of the noon buying rate for pounds sterling on the last day of each full month during the relevant year or each business day during the relevant month indicated.

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Our business has significant risks. You should consider carefully the risks described below, together with the other information contained in this Annual Report, including our financial statements and the related notes. If any of the following risks occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected.

Risks Related to our Financial Position and Need for Additional Capital

We have incurred significant losses since our inception. We expect to incur losses for at least the next several years and may never generate profits from operations or maintain profitability.

Since inception, we have incurred significant operating losses. Our net loss was approximately £7.1 million for the year ended January 31, 2018, £21.4 million for the year ended January 31, 2017 and £20.1 million for the year ended January 31, 2016 . As of January 31, 2018, we had an accumulated deficit of £80.9 million. To date, we have financed our operations primarily through issuances of our ordinary shares and American Depositary Shares, or ADSs, payments to us under our license and collaboration agreement with Sarepta Therapeutics, Inc., or Sarepta, a payment to us under our license and commercialization agreement with Eurofarma Laboratórios SA, or Eurofarma, and development funding and other assistance from government entities, philanthropic, non-government and not for profit organizations and patient advocacy groups for our product candidates. We have devoted substantially all of our efforts to research and development, including clinical trials. We have not completed development of any drugs. We expect to continue to incur significant expenses and increasing operating losses for at least the next several years. The net losses we incur may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will increase substantially in connection with conducting clinical trials for our lead product candidates, ezutromid (formerly SMT C1100) for the treatment of patients with Duchenne muscular dystrophy, or DMD, and ridinilazole (formerly SMT19969) for the treatment of patients with *Clostridium difficile* infection, or CDI, and seeking marketing approval for ezutromid and ridinilazole in the United States and the European Union, as well as other geographies. In addition, if we obtain marketing approval of ezutromid in the United States or other jurisdictions where we retain commercial rights, or ridinilazole where we retain commercial rights, we expect to incur significant sales, marketing, distribution and outsourced manufacturing expense, as well as ongoing research and development expenses.

In addition, our expenses will increase if and as we:

- continue the research and development of the F3 formulation of ezutromid, the F6 formulation of ezutromid and future generation modulators that we are developing in collaboration with the University of Oxford and Sarepta;
- continue the research and development of ridinilazole;
- seek to identify and develop additional product candidates, including through our bacterial genetics-based platform for the discovery and development of new mechanism antibiotics;
- seek marketing approvals for any product candidates that successfully complete clinical development;
- ultimately establish a sales, marketing and distribution infrastructure in jurisdictions where we have retained commercialization rights and scale up external manufacturing capabilities to commercialize any product candidates for which we receive marketing approval;
- acquire or in-license other product candidates and technology;
- maintain, expand and protect our intellectual property portfolio;
- hire additional clinical, regulatory and scientific personnel;
- expand our physical presence; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts.

Our ability to generate profits from operations and remain profitable depends on our ability to successfully develop and commercialize drugs that generate significant revenue. Based on our current plans, we do not expect to generate significant product sales revenue unless and until we obtain marketing approval for, and commercialize, ezutromid for the treatment of DMD or ridinilazole for the treatment of CDI. This will require us to be successful in a range of challenging activities, including:

- successfully initiating and completing clinical trials of ezutromid for the treatment of DMD and ridinilazole for the treatment of CDI;
- obtaining approval to market ezutromid for the treatment of DMD and ridinilazole for the treatment of CDI;
- protecting our rights to our intellectual property portfolio related to ezutromid and ridinilazole;
- contracting for the manufacture of clinical and commercial quantities of ezutromid and ridinilazole;
- negotiating and securing adequate reimbursement from third-party payors for ezutromid and ridinilazole; and
- establishing sales, marketing and distribution capabilities to effectively market and sell ezutromid in the United States and ridinilazole in the United States and the European Union, as well as other geographies.

We may never succeed in these activities and, even if we do, may never generate revenues that are significant enough to generate profits from operations. Even if we do generate profits from operations, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to generate profits from operations and remain profitable would decrease the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our product offerings or continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

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

Our operations to date have been limited to organizing and staffing our company, developing and securing our technology, raising capital and undertaking preclinical studies and clinical trials of our product candidates. We have not yet demonstrated our ability to successfully complete development of any product candidates, obtain marketing approvals, manufacture a commercial scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history.

Assuming we obtain marketing approval for any of our product candidates, we will need to transition from a company with a research and development focus to a company capable of supporting commercial activities. We may encounter unforeseen expenses, difficulties, complications and delays and may not be successful in such a transition.

We will need substantial additional funding. If we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.

We expect our research and development expenses to increase substantially in connection with our ongoing activities, particularly as we initiate and continue clinical trials of ezutromid for the treatment of DMD and ridinilazole for the treatment of CDI, continue our research activities and initiate preclinical programs for future product candidates. In addition, if we obtain marketing approval for ezutromid, in the United States or other jurisdictions where we retain commercial rights, ridinilazole where we retain commercial rights or any of our future product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, distribution and manufacturing. Furthermore, we expect to continue to incur additional costs associated with operating as a public company in the United States in addition to in the United Kingdom. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

We believe that our existing cash and cash equivalents, as well as the $32 million we have been awarded under the base period of our contract with the Biomedical Advanced Research and Development Authority, or BARDA, for the development of ridinilazole and the cost-sharing arrangement under our license and collaboration agreement with Sarepta, will be sufficient to enable us to fund our operating expenses and capital expenditure requirements through at least April 30, 2019. In our DMD program, while we anticipate that these capital resources will allow us to obtain top-line data for our Phase 2 clinical trial of ezutromid, which we refer to as PhaseOut DMD, we do not expect these capital resources will be sufficient to complete our planned randomized, placebo controlled clinical trial of ezutromid. In addition, in our CDI program, while we also anticipate that these capital resources will allow us to initiate our two, planned Phase 3 clinical trials of ridinilazole, we do not expect to be able to complete these trials without additional capital. We have based the foregoing estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. This estimate assumes, among other things, that we do not obtain any additional funding through grants and clinical trial support or through new collaboration arrangements. Our future capital requirements will depend on many factors, including:

- the progress, costs and results of clinical trials of ezutromid for DMD and ridinilazole for CDI;
- the scope, progress, costs and results of preclinical development, laboratory testing and clinical trials for the F3 formulation of ezutromid, the F6 formulation of ezutromid and future generation modulators that we are developing in collaboration with the University of Oxford and Sarepta;
- the number and development requirements of other future product candidates that we pursue;
- the costs, timing and outcome of regulatory review of ezutromid, ridinilazole and our other future product candidates;
- the costs and timing of commercialization activities, including product sales, marketing, distribution and manufacturing, for any of our product candidates that receive marketing approval;
- subject to receipt of marketing approval, revenue received from commercial sales of ezutromid, ridinilazole or any of our other future product candidates;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and protecting our intellectual property rights and defending against any intellectual property-related claims;
- the amounts we receive from Sarepta under our license and collaboration agreement, including for the achievement of development, regulatory and sales milestones and royalty payments;
- our contract with BARDA and whether BARDA elects to pursue its designated options beyond the base period;
- the amounts we receive from Eurofarma under our license and commercialization agreement, including for the achievement of development, commercialization and sales milestones and for product supply transfers;
- our ability to establish and maintain collaborations, licensing or other arrangements and the financial terms of such arrangements;
- the extent to which we acquire or invest in other businesses, products and technologies;
- the rate of the expansion of our physical presence; and
- the costs of operating as a public company in the United States and in the United Kingdom.

Conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we are not planning to have commercially available for several years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. Additional financing may not be available to us on acceptable terms, or at all.

Raising additional capital may cause dilution to our investors, restrict our operations or require us to relinquish rights to our technologies or product candidates.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, collaborations, strategic alliances, grants and clinical trial support from government entities, philanthropic, non-government and not for profit organizations and patient advocacy groups, debt financings, and marketing, distribution or licensing arrangements. We do not have any committed external source of funds other than the amounts we are entitled to receive from Sarepta under our license and collaboration agreement with them, from BARDA under the base period of our contract with them to fund, in part, the clinical development of ridinilazole and from Eurofarma under our license and commercialization agreement with them. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as an equity holder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends or other distributions.

If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings or other arrangements 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 product candidates that we would otherwise prefer to develop and market ourselves.

Risks Related to the Development and Commercialization of our Product Candidates

We depend heavily on the success of our lead product candidates, ezutromid, which we are developing for the treatment of DMD, and ridinilazole, which we are developing for the treatment of CDI. All of our other programs are still in the discovery or candidate optimization stage. If we are unable to commercialize ezutromid and ridinilazole, or experience significant delays in doing so, our business will be materially harmed.

We have invested a significant portion of our efforts and financial resources in the development of ezutromid for DMD and ridinilazole for CDI, both of which are still in clinical development. Our ability to generate product revenues, which may not occur for several years, if ever, will depend heavily on the successful development and commercialization of ezutromid and ridinilazole. The success of each of these product candidates will depend on a number of factors, including the following:

- successful completion of clinical development;
- receipt of marketing approvals from applicable regulatory authorities;
- establishing commercial manufacturing arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity;
- protecting our rights in our intellectual property portfolio;
- establishing sales, marketing and distribution capabilities;
- launching commercial sales of ezutromid or ridinilazole, as applicable, if and when approved, whether alone or in collaboration with others;
- acceptance of ezutromid or ridinilazole, as applicable, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies; and
- maintaining a continued acceptable safety profile of ezutromid or ridinilazole, as applicable, following approval.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize ezutromid or ridinilazole, which would materially harm our business.

If clinical trials of our product candidates fail to demonstrate safety and efficacy to the satisfaction of the U.S. Food and Drug Administration, or the FDA, or the European Medicines Agency, or the EMA, or do not otherwise produce favorable results, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of ezutromid, ridinilazole or any other product candidate.

In connection with obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete preclinical development and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing. The outcome of preclinical testing and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. In particular, the small number of patients in our early clinical trials may make the results of these clinical trials less predictive of the outcome of later clinical trials. The design of a clinical trial can determine whether its results will support approval of a product, and flaws in the design of a clinical trial may not become apparent until the clinical trial is well advanced or completed. We have limited experience in designing clinical trials and may be unable to design and execute a clinical trial to support marketing approval. Moreover, preclinical and clinical data are often susceptible to varying 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 of their products.

For example, in 2009, we assigned certain technology relating to our DMD program to BioMarin DMD Regulator Limited, or BioMarin. BioMarin conducted a Phase 1 clinical trial of a prior formulation of ezutromid in 48 healthy adult volunteers. Subjects in this clinical trial achieved low systemic exposure of the drug, and there was variability in systemic exposure across subjects. Following this clinical trial of a prior formulation of ezutromid, BioMarin elected not to continue development of our assigned technology, citing pharmaceutical and pharmacokinetic challenges. In public statements, BioMarin indicated that it had concluded that the likelihood of achieving a therapeutic effect in DMD patients was highly unlikely. In 2010, BioMarin transferred the assets, and all commercialization rights, back to us. Our first Phase 1 clinical trial of ezutromid was conducted in healthy volunteers using a different formulation than the one evaluated by BioMarin. The results from this trial showed an improvement in plasma levels of ezutromid when administered orally with food. In our first Phase 1b clinical trial of ezutromid in DMD patients, patients had variable levels of ezutromid in the blood plasma following dosing, which we believe was potentially due to the impact of diet on absorption of ezutromid. In 2015, we reported top-line data from our second Phase 1b clinical trial of ezutromid in DMD patients, which we refer to as our Phase 1b modified diet trial, in which patients followed specific dietary guidance that recommended balanced proportions of fat, protein, and carbohydrates and dosing with a glass of whole milk. In our Phase 1b modified diet trial, while following specific dietary guidance, all of the patients in the trial achieved plasma levels of ezutromid that we believe may be sufficient to modulate the production of utrophin protein and possibly result in clinical benefit. In addition, in our Phase 1 clinical trial of the F6 formulation of ezutromid, the F6 formulation achieved a greater than six-fold increase in average maximum plasma levels in DMD patients compared to those achieved with the F3 formulation of ezutromid evaluated in our Phase 1 modified diet trial, and we believe such plasma levels are within the range necessary for a potential therapeutic effect. Nonetheless, while the results of our completed clinical trials to date suggest that diet may impact absorption of ezutromid, other disease related factors, such as abnormal gastrointestinal physiology, or other factors such as the level of activity of the liver enzyme CYP1A, may impact the absorption profile of DMD patients. Accordingly, it is possible that we will be unable to achieve plasma levels of ezutromid that are expected to bring therapeutic benefit in future clinical trials, and, in such a case, we will likely not be able to successfully complete the development of, obtain marketing approval for or commercialize this product candidate.

In addition, in our first Phase 1b clinical trial of ezutromid in DMD patients, patients experienced a statistically significant reduction in creatine kinase, or CK, and other enzyme markers of muscle damage following treatment with ezutromid. Although this was not a placebo controlled study and there may be other factors that influenced the results, we believed the lower levels of CK and the other enzymes compared to baseline potentially indicated a reduction in muscle damage and may have been evidence of ezutromid activity. However, in our Phase 1b modified diet trial, we did not observe a change in the levels of CK when patients received ezutromid as compared to when patients received a placebo. Likewise, we may not observe changes in levels of CK or other enzyme markers of muscle damage in longer-term clinical trials.

In addition, in the Phase 2 clinical trial of ezutromid in DMD patients, which we refer to as PhaseOut DMD, we observed a statistically significant reduction in levels of developmental myosin, a biomarker of damage in muscle fibers, following 24-weeks of treatment with ezutromid. We also observed a mean increase in utrophin protein expression although this did not reach statistical significance. We observed a statistically significant decrease in muscle inflammation in the soleus, or calf, muscle as measured by magnetic resonance spectroscopy transverse relaxation time T2, or MRS-T2; we also observed a decrease in MRS-T2 in the vastus lateralis, or thigh, which did not achieve statistical significance. Although this was not a placebo controlled trial and that there may be other factors that influenced the results, we believe that this decline in levels of developmental myosin, combined with the mean increase in utrophin protein levels, and the decrease in MRS-T2 we observed at 24 weeks compared to baseline, indicates a reduction in muscle damage and inflammation, and provides the first evidence of ezutromid target engagement and proof of mechanism. We may however not see similar or better results in the patients who will have their second biopsy after 48-weeks of treatment with ezutromid in PhaseOut DMD, or similar or

better results in the patients' MRS-T2 after 48-weeks of treatment with ezutromid in PhaseOut DMD. We may also not observe changes in other measurements that include the amount of fat in muscles as measured by magnetic resonance spectroscopy, or MRS, or magnetic resonance imaging, or MRI, and changes in functional endpoints including the distance walked in six minutes or the North Star Ambulatory Assessment with longer-term dosing of ezutromid.

If we are required to conduct additional clinical trials or other testing of ezutromid or ridinilazole or any other product candidate that we develop beyond those that we contemplate, if we are unable to successfully complete our clinical trials or other testing, if the results of these clinical trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining marketing approval for our product candidates;
- not obtain marketing approval at all;
- obtain approval for indications or patient populations that are not as broad as we intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings, including boxed warnings;
- be subject to additional post-marketing testing requirements or restrictions; or
- have the product removed from the market after obtaining marketing approval.

If we experience any of a number of possible unforeseen events in connection with our clinical trials, potential marketing approval or commercialization of our product candidates could be delayed or prevented.

We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates, including:

- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials at a higher rate than we anticipate;
- we may be unable to enroll a sufficient number of patients in our clinical trials to ensure adequate statistical power to detect any statistically significant treatment effects;
- our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- regulators, institutional review boards or independent ethics committees may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may have delays in reaching or fail to reach agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites;
- we may have to suspend or terminate clinical trials of our product candidates for various reasons, including a finding that the participants are being exposed to unacceptable health risks;
- regulators, institutional review boards or independent ethics committees may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;
- the cost of clinical trials of our product candidates may be greater than we anticipate;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate; and
- our product candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators, regulators, institutional review boards or independent ethics committees to suspend or terminate the clinical trials.

Our product development costs will increase if we experience delays in testing or marketing approvals. We do not know whether any preclinical tests or clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant preclinical or clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize our product candidates and may harm our business and results of operations.

Because we are developing ezutromid for the treatment of a disease in which there is little clinical experience, there is increased risk that the outcome of our clinical trials of ezutromid will not be favorable.

There are currently only two approved therapies for the treatment of DMD that seek to alter the progression of the disease, one in the United States and one in Europe, and neither of which treat the entire DMD patient population. Data on the natural clinical progression of DMD remain limited despite the recent publication of data from natural history studies on DMD patients. This has resulted in limited clinical trial experience for the development of drugs to treat DMD. In particular, regulatory authorities in the European Union have not issued definitive guidance as to how to measure and achieve efficacy, and regulatory authorities in the United States have only recently issued guidance regarding the development of drugs for the treatment of DMD. As a result, the design and conduct of clinical trials for DMD is subject to increased risk.

In the last few years, a test of the distance walked by a patient in six minutes, commonly referred to as the six minute walk test, has been used as an endpoint in several clinical trials of product candidates for patients with DMD. It is viewed by U.S. and European regulators as a key outcome measure for DMD trials. We may nonetheless experience setbacks with our clinical trials for ezutromid or the clinical trials for our future product candidates for DMD because of the limited clinical experience in this indication. For example, regulators have not yet established what change in the distance walked in the six minute walk test is required to be demonstrated in a clinical trial of a DMD therapy in order to signify a clinically meaningful result or obtain marketing approvals. As a result, we may not achieve the pre-specified endpoint with statistical significance in clinical trials of ezutromid or of our other future product candidates for DMD, which would decrease the chance of obtaining marketing approval for ezutromid or our other future product candidates for DMD. In February 2018, the FDA published guidance regarding the development of drugs for the treatment of DMD, which identified a number of considerations regarding the design of clinical trials to evaluate the efficacy of a product candidate for the treatment of DMD. The FDA noted, among other considerations, that biomarkers that reliably reflect the health and amount of skeletal muscle at a biochemical, cellular, or tissue level may be useful across the DMD drug development process, including use as prognostic, predictive, or pharmacodynamic markers, or, in some instances if supported by sufficient scientific evidence and acceptable analytical methods, as surrogate endpoints to support accelerated approval. However, the FDA has not yet established specific parameters or measurements of biomarkers that are required for marketing approval. We are evaluating several biomarkers in PhaseOut DMD and, based on the positive interim 24-week results from PhaseOut DMD and this FDA guidance, are accelerating activities to prepare for the potential filing of a new drug application with the FDA for ezutromid for accelerated approval if we obtain positive 48-week results from PhaseOut DMD. However, the positive interim 24-week results from PhaseOut DMD may not be predictive of positive 48-week results. In addition, even if we believe the 48-week results we receive are positive, regulators may determine that such results are not clinically meaningful, that the biomarker data from PhaseOut DMD is not a surrogate of altering disease progression or that the biomarkers we have used are not sufficiently validated, in which case we would likely be required to complete a placebo controlled trial for purposes of seeking regulatory approval.

Our focus on utrophin modulation as a potential treatment for DMD is unproven, and we do not know whether we will be able to develop any products of commercial value for this indication.

Our scientific approach for treating DMD focuses on the discovery and development of utrophin modulators. There is no marketed drug that relies on utrophin modulation whereby the production of utrophin is maintained to compensate for the lack of dystrophin for the treatment of DMD or any other indication. As a result, we may not be able to replicate the results of our preclinical studies in our clinical trials of ezutromid, and our focus on targeting utrophin modulation may not result in the discovery and development of commercially viable drugs that safely and effectively treat DMD or other muscle-wasting disorders.

Moreover, we have not yet identified the level of utrophin modulation and associated production of utrophin needed to provide a clinical benefit to DMD patients. In our two completed Phase 1b clinical trials of the F3 formulation of ezutromid and our Phase 1 clinical trial of the F6 formulation of ezutromid, we observed variable plasma levels of drug among patients. Patients dosed with the F6 formulation in our Phase 1 clinical trial all achieved plasma concentration levels exceeding the level that corresponded to a 50% increase in utrophin expression in our preclinical studies. Meanwhile, only a proportion of patients dosed with the F3 formulation of ezutromid in each of our Phase 1b trials had plasma concentrations exceeding this 50% level. We believe that all the patients may still have achieved plasma levels of ezutromid sufficient to modulate the production of utrophin to a lesser extent and possibly result in clinical benefit. This belief is based in part on the work of Professor Kay Davies and her research group at the University of Oxford, in which the continued expression of utrophin protein in the transgenic lines of an *mdx* mouse, even at levels just above those in a normal *mdx* mouse, had a meaningful, positive effect on muscle performance. In addition, our ongoing Phase 2 clinical trial called PhaseOut DMD is evaluating the F3 and the F6 formulations of ezutromid. With the interim 24-week data, we have reported there to be no relationship between drug exposure and responses in pharmacology or safety measures. Nonetheless, although we do believe that utrophin modulation has been achieved with both formulations of ezutromid after 24 weeks of dosing in PhaseOut DMD, it is not certain if utrophin modulation will be maintained with longer-term dosing, and even if utrophin modulation is maintained, whether the level of utrophin modulation and production will lead to a clinical benefit for these patients.

If we experience delays or difficulties in the enrollment of patients in our clinical trials, our receipt of necessary marketing approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for our product candidates, if we are unable to locate and enroll a sufficient number of eligible patients to participate in these clinical trials. DMD is a rare disease with a relatively small patient population, which could result in slow enrollment of clinical trial participants. Because we expect that our current and planned clinical trials for DMD will be limited to boys in a specified age range and with a certain level of physical ability only, the number of patients eligible for our clinical trials is even smaller. Further, there are only a limited number of specialist physicians that treat DMD patients, and major clinical centers are concentrated in a few geographic regions. CDI is an acute infection that requires rapid diagnosis. For our planned Phase 3 clinical trials of ridinilazole, we need to identify potential patients, test them for CDI and enroll them within a 48-hour period. In addition, our competitors in both DMD and CDI have ongoing clinical trials for product candidates that could be competitive with our product candidates, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' product candidates.

Patient enrollment is affected by other factors, including:

- severity of the disease under investigation;
- eligibility criteria for the clinical trial in question;
- perceived risks and benefits of the product candidate under study;
- competition for patients, time and resources at clinical trials sites from other investigational therapies in clinical trials that target the same patient population;
- approval of other therapies to treat the indication that is being investigated in the clinical trial;
- efforts to facilitate timely enrollment in clinical trials;
- patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment; and
- proximity and availability of clinical trial sites for prospective patients.

Enrollment delays in our clinical trials may result in increased development costs for our product candidates, which would cause the value of our company to decline and limit our ability to obtain additional financing. Our inability to enroll a sufficient number of patients in our ongoing and planned clinical trials of ezutromid and ridinilazole or any of our other clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether.

If serious adverse or inappropriate side effects are identified during the development of ezutromid or ridinilazole or any other product candidate, we may need to abandon or limit our development of that product candidate.

All of our product candidates are in clinical or preclinical development and their risk of failure is high. It is impossible to predict when or if any of our product candidates will prove effective or safe in humans or will receive marketing approval. If our product candidates are associated with undesirable side effects or have characteristics that are unexpected, we may need to abandon their development or limit development to certain uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective.

For example, although ezutromid has generally been well tolerated at all doses tested, one of the patients in our Phase 1 clinical trial of the F6 formulation of ezutromid exhibited changes in liver parameters in laboratory findings and withdrew from the trial, despite showing no clinical symptoms. The finding was classified as a serious adverse event.

Many compounds that initially showed promise in clinical or earlier stage testing have later been found to cause side effects or other safety issues that prevented further development of the compound. If we elect or are forced to suspend or terminate any clinical trial of our product candidates, the commercial prospects of such product candidate will be harmed and our ability to generate product revenues from such product candidate will be delayed or eliminated. Any of these occurrences could materially harm our business.

Even if ezutromid or ridinilazole or any other product candidate receives marketing approval, it may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success.

If ezutromid, ridinilazole or any of our other future product candidates receive marketing approval, such products may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. If these products do not achieve an adequate level of acceptance, we may not generate significant product revenues or revenue from collaboration agreements, including our license and collaboration agreement with Sarepta and our license and commercialization agreement with Eurofarma, or any profits from operations. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and potential advantages compared to alternative treatments or competitive products;
- the prevalence and severity of any side effects;
- the ability to offer our product candidates for sale at competitive prices, including in the case of ridinilazole, which we expect, if approved, will compete with vancomycin and metronidazole, both of which are available in generic form at low prices, and the antibiotic, fidaxomicin, and potentially other approaches to be used as an adjunctive therapy to antibiotics, such as the monoclonal antibody bezlotoxumab, vaccines or fecal therapy;
- convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support;
- the availability of third-party coverage and adequate reimbursement;
- the timing of any such marketing approval in relation to other product approvals;
- support from patient advocacy groups; and
- any restrictions on concomitant use of other medications.

Our ability to negotiate, secure and maintain third-party coverage and reimbursement may be affected by political, economic and regulatory developments in the United States, the European Union and other jurisdictions. Governments continue to impose cost containment measures, and third-party payors are increasingly challenging prices charged for medicines and examining their cost effectiveness, in addition to their safety and efficacy. These and other similar developments could significantly limit the degree of market acceptance of ezutromid or ridinilazole or any of our other future product candidates that receive marketing approval.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our product candidates, we may not be successful in commercializing ezutromid or ridinilazole or any other product candidate if and when such product candidates are approved.

We do not have a sales or marketing infrastructure and have no experience in the sale or marketing of pharmaceutical products. To achieve commercial success for any approved product, we must either develop a sales and marketing organization or outsource these functions to third parties. If ezutromid receives marketing approval, we intend to commercialize it in the United States with our own focused, specialized sales force. In the European Union, Switzerland, Norway, Iceland, Turkey and the Commonwealth of Independent States, we will rely on Sarepta to commercialize ezutromid pursuant to the license and collaboration agreement we entered into with Sarepta in October 2016. Sarepta also has an option to expand its commercial rights to include specified countries in Latin America, which means we may have to rely on Sarepta to commercialize ezutromid in these additional territories. We plan to evaluate the potential for utilizing additional collaboration, distribution and marketing arrangements with third parties to commercialize ezutromid in other jurisdictions where we retain commercialization rights. With respect to ridinilazole, we we will rely on Eurofarma to commercialize ridinilazole in Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Dominican Republic, Uruguay and Venezuela, pursuant to the license and commercialization agreement we entered into with Eurofarma in December 2017. We are also currently exploring options to develop and commercialize this antibiotic in other territories. We may also determine to commercialize ridinilazole directly in the United States and Europe with our own specialized sales force. There are risks involved with establishing our own sales and marketing capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force is expensive and time-consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our products on our own include:

- our inability to recruit, train and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to or persuade adequate numbers of physicians to prescribe any future products;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we enter into arrangements with third parties to perform sales and marketing services, our product revenues or the profitability of these product revenues to us are likely to be lower than if we were to market and sell any products that we develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell and market our product candidates or may be unable to do so on terms that are acceptable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

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

The development and commercialization of new drug products is highly competitive. We face competition with respect to our current product candidates and any products we may seek to develop or commercialize in the future from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide.

There is currently no approved therapy for the treatment of DMD applicable to all DMD patients that seeks to alter the progression of the disease. Corticosteroids, such as prednisolone and deflazacort, are the current standard of care for DMD patients, although these are symptomatic treatments that do not address the underlying cause of DMD and their use can be associated with severe side-effects and concerns over weight gain.

A number of biopharmaceutical companies, including Sarepta, are developing treatments for DMD based on exon-skipping approaches. Sarepta received accelerated approval for eteplirsen (Exondys 51), which based on its targeting of exon 51, has the potential to treat approximately 13% of DMD patients. We believe that there are three other exon-skipping therapies in clinical development that target exon 44, exon 45 and exon 53; skipping of the ten most common exons would treat in aggregate approximately 41% of all DMD patients. PTC Therapeutics, Inc. is developing ataluren (Translarna™), which is a small molecule that enables formation of functional dystrophin in DMD patients with nonsense mutations. DMD caused by nonsense mutations affects approximately 13% of all DMD patients. The European Commission has granted conditional approval for ataluren in Europe, and PTC is commercializing ataluren in several European countries. A number of other companies are pursuing alternative therapeutic approaches for the treatment of DMD, including Pfizer, Inc. and F. Hoffmann-La Roche Ltd, which are pursuing an approach based on muscle tissue growth through myostatin inhibition. Santhera Pharmaceuticals Holding AG is developing a treatment designed to delay the deterioration in respiratory function, and a number of other companies are developing gene therapy based approaches. For more information, see "Business—Competition" in this Annual Report. We believe that our approach of utrophin modulation has the potential to treat the entire population of DMD patients, unlike other DMD approaches that also seek to alter the progression of the disease but only address subsets of the total DMD population. We expect the price that we will charge for ezutromid, if approved, will reflect its status as an orphan drug that will be directed at a smaller population of patients.

Several pharmaceutical and biotechnology companies have established themselves in the market for the treatment of CDI, and several additional companies are developing products for the treatment of CDI. The current standard of care for CDI is treatment with the broad spectrum antibiotics vancomycin and metronidazole, both of which are available in generic form in the United States. Generic antibiotic therapies typically are sold at lower prices than branded antibiotics and generally are preferred by managed care providers of health services. The antibiotic fidaxomicin (Dificid™ in the United States and Dificlir™ in Europe), which is marketed in the United States by Cubist Pharmaceuticals, Inc., or Cubist, a wholly owned subsidiary of Merck & Co., Inc. and in Europe by Astellas Pharma Inc., was approved for treatment of CDI in the United States and the European Union. The late-stage antibiotic cadazolid, which was originally being developed by Actelion Pharmaceuticals Limited, before global rights were acquired by Johnson and Johnson in January 2017, was reported in 2017 to have missed the primary endpoint on non-inferiority to vancomycin on clinical cure in one Phase 3 clinical trial but achieved the same primary endpoint in a second Phase 3 clinical trial. Merck received approval from the FDA for bezlotoxumab (Zinplava™), a monoclonal antibody for the treatment of patients, in combination with an antibiotic, who have a high risk of disease recurrence. Other approaches in development for the treatment of CDI include vaccines and fecal biotherapy. For more information, see "Business—Competition" in this Annual Report.

Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization. Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are more effective, safer, have fewer or less severe side effects, are

approved for broader indications or patient populations, or are more convenient or less expensive than any products that we develop and commercialize. Our competitors may also obtain marketing approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market.

We believe that many competitors are attempting to develop therapeutics for the target indications of our product candidates, including academic institutions, government agencies, public and private research organizations, large pharmaceutical companies and smaller more focused companies.

Many of our competitors may have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining approvals from regulatory authorities and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to or necessary for our programs.

Even if we are able to commercialize ezutromid, ridinilazole or any other product candidate that we develop, the product may become subject to unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, which would harm our business.

The regulations that govern marketing approvals, pricing, coverage and reimbursement for new drug products vary widely from country to country. Current and future legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay our commercial launch of the product, possibly for lengthy time periods, and negatively impact the revenues we are able to generate from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if our product candidates obtain marketing approval.

Our ability to commercialize ezutromid, ridinilazole or any other product candidate successfully also will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Government authorities and other third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. A primary trend in the E.U. and U.S. healthcare industries and elsewhere is cost containment. Government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that coverage and reimbursement will be available for ezutromid, ridinilazole or any other product that we commercialize and, if coverage and reimbursement are available, the level of reimbursement. Reimbursement may impact the demand for, or the price of, any product candidate for which we obtain marketing approval. Obtaining and maintaining adequate reimbursement for ezutromid may be particularly difficult because of the higher prices typically associated with drugs directed at smaller populations of patients. In addition, third-party payors are likely to impose strict requirements for reimbursement of a higher priced drug. If reimbursement is not available or is available only to limited levels, we may not be able to successfully commercialize any product candidate for which we obtain marketing approval.

There may be significant delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the applicable regulatory authority. Moreover, eligibility for coverage and reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, intellectual property, manufacture, sale and distribution expenses. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs, and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. In the United States, third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. In the European Union, reference pricing systems and other measures may lead to cost containment and reduced prices. Our inability to promptly obtain coverage and adequate reimbursement rates from both government-funded and private payors for any approved products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

Governments outside the United States tend to impose strict price controls, which may adversely affect our revenues, if any.

In some countries, particularly the member states of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various E.U. member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. In some countries, we may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of our product candidate to other available therapies in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third-party payors or authorities may lead to further pressure on prices or reimbursement levels within the country of publication and other countries. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be adversely affected.

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;
- significant costs to defend the related litigation;
- substantial monetary awards to clinical trial participants or patients;
- loss of revenue;
- increased insurance costs; and
- the inability to commercialize any products that we may develop.

We have separate product liability insurance policies that cover our product candidates and each of our clinical trials. These policies each provide coverage of up to £5.0 million in the aggregate for clinical trials, or portions thereof, conducted in Europe and up to $5.0 million in the aggregate for clinical trials, or portions thereof, conducted in the United States. The insurance policies covering our clinical trials in the United States are also subject to a per claim deductible. The amount of insurance that we currently hold may not be adequate to cover all liabilities that we may incur. We will need to increase our insurance coverage when and if we begin commercializing ezutromid, ridinilazole or any other product candidate that receives marketing approval. 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.

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

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

Our operations currently, and may in the future, involve the use of hazardous and flammable materials, including chemicals and medical and biological materials, and produce hazardous waste products. Even if we contract with third parties for the disposal of these materials and wastes, we cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials or disposal of hazardous wastes, we could be held liable for any resulting damages, and any liability could exceed our resources.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We also maintain liability insurance for some of these risks, but our policy has a coverage limit of £5.0 million per occurrence.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

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

Because we have limited financial and managerial resources, we focus on specific product candidates. As a result, we may forego or delay pursuit of opportunities with other product candidates that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates may not yield any commercially viable products.

We have based our research and development efforts for DMD on utrophin modulators, including the F3 formulation of ezutromid, the F6 formulation of ezutromid and our future generation utrophin modulators, and for CDI on the antibiotic ridinilazole. Notwithstanding our large investment to date and anticipated future expenditures in proprietary technologies that we use in the discovery of product candidates for DMD, CDI and other infectious diseases, we have not yet developed, and may never successfully develop, any marketed drugs using this approach. As a result of pursuing the development of product candidates using our proprietary technologies, we may fail to develop product candidates or address indications based on other scientific approaches that may offer greater commercial potential or for which there is a greater likelihood of success. Research programs to identify new product candidates require substantial technical, financial and human resources. These research programs may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development.

If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

The anticipated benefits of any acquisition that we consummate may not be fully realized, may take longer to realize than expected or may not be realized at all.

Any acquisition we consummate will involve the integration of the operations, product candidates and technology of the acquired business with our existing operations and programs, and there are uncertainties inherent in any such integration. Unexpected difficulties in the integration process for an acquisition or the failure to retain key management personnel from an acquired business could adversely affect our business, financial results and financial condition. In addition, any acquisitions are likely to require significant resources and management attention, including the resources and attention required to further the development of any acquired product candidates or other development programs, and we may not realize the anticipated benefits from such an acquisition within the time period we expect, or at all. In addition, in any acquisition, the due diligence process may not identify all factors that could produce unintended or unexpected consequences for us. Undiscovered factors could cause us to incur potentially material financial liabilities and prevent us from achieving the expected benefits from the acquisition within our desired timeframe, or at all. In December 2017, we obtained a bacterial genetics-based platform for the discovery and development of new mechanism antibiotic compounds through our acquisition of Discuva. While we expect to use the acquired genetics-based platform to facilitate our discovery and development of new mechanism antibiotics, we may fail to do so. As a result, we may not obtain any value from our acquisition of Discuva.

The United Kingdom's vote in favor of withdrawing from the European Union could lead to increased market volatility which could adversely impact the market price of our ordinary shares and ADSs and make it more difficult for us to do business in Europe.

On June 23, 2016, the electorate in the United Kingdom voted in favor of leaving the European Union (commonly referred to as "Brexit"). The withdrawal of the United Kingdom from the European Union will take effect either on the effective date of the withdrawal agreement or, in the absence of agreement, two years after the United Kingdom provides a notice of withdrawal pursuant to Article 50 of the E.U. Treaty, unless the European Council, in agreement with the United Kingdom, unanimously decides to extend this period. On March 29, 2017, the U.K. Prime Minister formally delivered the notice of withdrawal. It appears likely that this withdrawal will involve a process of lengthy negotiations between the United Kingdom and European Union member states to determine the future terms of the United Kingdom's relationship with the European Union. This could lead to a period of considerable uncertainty particularly in relation to United Kingdom financial and banking markets as well as on the regulatory process in Europe. As a result of this uncertainty, financial markets could experience significant volatility which could adversely affect the market price of our ordinary shares and ADSs.

We may also face new regulatory costs and challenges that could have a material adverse effect on our operations. Depending on the terms of Brexit, the United Kingdom could lose the benefits of global trade agreements negotiated by the European Union on behalf of its members, which may result in increased trade barriers which could make our doing business in Europe more difficult. In addition, currency exchange rates in the pound sterling and the euro with respect to each other and the U.S. dollar have already been adversely affected by Brexit. Furthermore, at present, there are no indications of the effect Brexit will have on the pathway to obtaining marketing approval for any of our product candidates in the U.K., or what, if any, role the EMA may have in the approval process.

Recent and potential future changes to U.S. and non-U.S. tax laws could materially adversely affect our company and holders of our ordinary shares and the ADSs.

On December 22, 2017, President Trump signed into law new legislation that significantly revises the U.S. Internal Revenue Code of 1986. This new law substantial affects the U.S. federal income taxation of corporations, including by way of reductions in the nominal U.S. corporate income tax rate, limitations on interest deductions and the introduction of new anti-base erosion provisions. Many of these changes are effective immediately, without transition periods or grandfathering relief, and in some cases retroactively. The legislation is unclear in many respects and could be subject to potential amendments and technical corrections, as well as interpretations and implementing regulations by the U.S. Treasury Department and the U.S. Internal Revenue Service; any these changes could modify various aspects of the legislation in ways that are either positive or negative for us or holders of the ADSs. As a result, the overall impact of this new legislation on us or on holders of our ordinary shares and the ADSs is uncertain and could be adverse. Other legislative or regulatory changes and judicial developments could also affect the taxation of our business or of holders of our ordinary shares and the ADSs.

Future changes in tax laws, regulations and treaties, or the interpretation thereof, in addition to initiatives related to the Base Erosion and Profit Shifting, or BEPS, Project of the Organisation for Economic Co-Operation and Development, or OECD; the European Commission's "state aid" investigations; and other developments could have an adverse effect on the taxation of international businesses, including our own. Furthermore, countries where we are subject to taxes, including the United States, evaluate their tax policies and rules on a regular basis, and we may see significant changes in legislation and regulations concerning taxation.

We are unable to predict what tax changes may be enacted in the future or what effect such changes would have on our business, but such changes could affect our effective tax rates in countries where we have operations and could have an adverse effect on our overall tax position in the future, along with increasing the complexity, burden and cost of tax compliance.

Risks Related to our Dependence on Third Parties

We will depend heavily on our license and collaboration arrangement with Sarepta for the success of the products in our utrophin modulator pipeline in the European Union and other geographies. If Sarepta terminates our license and collaboration agreement or is unable to meet its contractual obligations, it could negatively impact our business.

In October 2016, we entered into a license and collaboration agreement pursuant to which we granted exclusive rights to Sarepta to commercialize products in our utrophin modulator pipeline, or the licensed products, in the European Union (including the United Kingdom, irrespective of the timing of Brexit), Switzerland, Norway, Iceland, Turkey and the Commonwealth of Independent States, or the licensed territories, with an option exercisable by Sarepta for commercialization rights to the licensed products in Central and South America.

Under the terms of the license and collaboration agreement, we are entitled to receive specified development, regulatory and sales milestone payments, as well as royalty payments. In addition, subject to certain exceptions and limitations, since January 1, 2018, we have shared all budgeted global research and development costs for our utrophin modulator pipeline with Sarepta, with Sarepta responsible for 45.0% of these research and development costs for the licensed products. In addition, Sarepta will be solely responsible for all commercialization activities and associated costs, relating to licensed products in the licensed territories.

Unless earlier terminated, the license and collaboration agreement will expire on a licensed product-by-licensed product and country-by-country basis upon the expiration of the royalty term in such country for such licensed product. The license and collaboration agreement may be terminated by Sarepta upon six months' prior written notice in its entirety or on a licensed product-by-licensed product and country-by-country basis. Either party may, subject to a cure period, terminate the license and collaboration agreement in the event of the other party's uncured material breach. Sarepta may also terminate the license and collaboration agreement under specified circumstances relating to the safety or regulatory approvability of ezutromid.

If Sarepta were to terminate the license and collaboration agreement or fail to meet its contractual obligations, the assumption by us of all costs related to the development of products in our utrophin modulator pipeline and the establishment of a commercial infrastructure in the licensed territories would require substantial resources, financial and otherwise, and could result in us incurring greater expenses than the increase in revenues from our direct sales of the licensed products in the licensed territories. It could also cause a delay in the development of ezutromid. Seeking and obtaining a viable, alternative collaborator to partner on the development and commercialization of the licensed products may not be available on similar terms or at all.

Our reliance on government funding for ridinilazole adds uncertainty to our research and commercialization efforts with respect to ridinilazole.

We expect that a significant portion of the funding for the development of ridinilazole will come from our contract with BARDA. BARDA is entitled to terminate our BARDA contract for convenience at any time, in whole or in part, and there can be no assurance that our BARDA contract will not be terminated. Changes in government budgets and research priorities may result in a decreased and de-prioritized emphasis on supporting the development of antibacterial product candidates such as ridinilazole. If our BARDA contract is terminated or BARDA declines to exercise options for the full research program, or if there is any reduction or delay in funding under our BARDA contract, we may be forced to seek alternative sources of funding, which may not be available on non-dilutive terms, terms favorable to us, or at all. If alternative sources of funding are not available, we may suspend or terminate development activities related to ridinilazole.

BARDA could decide to delay certain of our activities, and we may elect to move forward with certain activities at our own risk and without BARDA reimbursement.

Under our BARDA contract, BARDA will regularly review our ridinilazole development efforts and clinical activities. Under certain circumstances, BARDA may direct us to delay certain activities and invest additional time and resources before proceeding. If we follow such BARDA direction, we may incur delays and additional costs for which we had not planned. In addition, even if BARDA does not direct us to delay certain activities, BARDA's review of our progress may take longer than we expect, which may result in overall program delays. Also, the costs associated with following BARDA's direction to delay certain activities may or may not be reimbursed by BARDA under our contract. Finally, if we decide not to follow the direction provided by BARDA and instead pursue activities that we believe are in the best interest of the development of ridinilazole, we might forgo reimbursement under our BARDA contract, and BARDA could assert that we are in default of our contractual commitments, potentially leading to the termination of our contract, and possibly suspension, debarment, or exclusion from eligibility for other U.S. government contracts, funding programs and regulatory approvals.

BARDA may elect not to pursue the designated options beyond the base period.

Even if BARDA does not terminate the contract, the BARDA contract does not require BARDA to provide funding beyond the amount currently obligated under the base period of the existing contract. Our BARDA contract includes an approximate 12-month base period providing for reimbursement of up to $32 million and options that, if exercised in full by BARDA, would extend the contract until the year 2022 and increase the total potential reimbursement to $62 million. However, BARDA will decide in its sole discretion whether to pursue each of the options under the contract and there can be no assurance that BARDA will elect to pursue any of the designated options beyond the base period. Changes in government budgets and research priorities may result in a decreased and de-prioritized emphasis on supporting the development of antibacterial product candidates such as ridinilazole. In such event, BARDA would have no obligation to exercise its options or extend our existing contract. Any such decision by BARDA to end its support for our ridinilazole research program could materially adversely affect our business.

Our reliance on government funding for the clinical and regulatory development of ridinilazole may impose requirements that increase the costs of commercialization and production of ridinilazole, if approved.

Our BARDA contract includes provisions that implement the U.S. government's rights and remedies, many of which are not typically found in commercial contracts, including, for example, powers of the government to:

- terminate agreements, in whole or in part, at any time, for any reason or no reason;
- unilaterally modify the parties' obligations under such contracts, subject to government-determined equitable price adjustments;
- decline to exercise any option for work beyond the initial base period under multi-year contracts;
- suspend contract performance if Congressionally appropriated funding becomes unavailable;
- obtain rights to inventions and technical data made or first produced in the performance of such contracts;
- audit contract-related costs and fees, including allocated indirect costs;
- suspend or debar the contractor from receiving new contracts pending resolution of alleged violations of procurement laws or regulations in the event of wrongdoing by us;
- take actions that result in a longer development timeline than expected;
- direct the course of a development program in a manner not chosen by the government contractor;
- impose U.S. manufacturing requirements for products that embody or that are produced through the use of inventions conceived or first reduced to practice under such contracts;

- assert qualified march-in rights to grant licenses to third parties to practice contractor-owned inventions that are conceived or first reduced to practice under such contracts;
- pursue criminal or civil remedies under the False Claims Act, False Statements Act and similar remedy provisions specific to government agreements; and
- limit the government's financial liability to amounts appropriated by the U.S. Congress on a fiscal-year basis, thereby leaving some uncertainty about the future availability of funding for a program even after it has been funded for an initial period.

We may not have the right to prohibit the U.S. government from using certain inventions and technical data funded by the government and developed by us, and we may not be able to prohibit third party companies, including our competitors, from using those inventions and technical data in providing products and services to the U.S. government. The U.S. government generally takes the position that it has the right to royalty-free use of inventions and technical data that are developed under U.S. government contracts. While we do not believe the intellectual property rights that we have granted to the U.S. government under the BARDA agreement will impact our rights to commercialize ridinilazole, the government's non-exclusive license to intellectual property developed under the agreement and the government's march-in to inventions made under the agreement may allow the government, or a third party on its behalf, to more easily and/or quickly develop a product that could compete with ridinilazole.

In addition, U.S. government contracts normally contain additional requirements that may increase our costs of doing business, reduce our profits, and expose us to liability for failure to comply with these terms and conditions. These requirements include, for example:

- specialized accounting systems unique to government contracts;
- potential liability for price adjustments or recoupment of government funds after such funds have been spent;
- mandatory disclosure of credible evidence of certain contractual or statutory violations occurring in connection with the contract;
- public disclosures of certain contract information, which may enable competitors to gain insights into our research program; and
- mandatory socioeconomic compliance requirements, including labor standards, non-discrimination and affirmative action programs and environmental compliance requirements.

As an organization, we are relatively new to government contracting and the associated regulatory compliance obligations. If we fail to maintain compliance with those obligations, we may be subject to potential civil and/or criminal liability, termination of our BARDA contract, and/or suspension, debarment, or exclusion from eligibility for other U.S. government contracts, funding programs and regulatory approvals. As a U.S. government contractor, we are subject to financial audits and other reviews by the U.S. government of our costs and performance under our BARDA contract, as well as our accounting and general business practices related to our BARDA contract. Based on the results of its audits, the U.S. government may adjust our contract-related costs and fees, including allocated indirect costs.

Laws and regulations affecting government contracts, including our BARDA contract, make it more costly and difficult for us to successfully conduct our business. Failure to comply with these laws and regulations could result in significant civil and criminal penalties and adversely affect our business.

We must comply with numerous laws and regulations relating to the administration and performance of our BARDA contract. Among the most significant government contracting regulations that affect our BARDA contract are:

- the Federal Acquisition Regulation, or FAR, and agency-specific regulations supplemental to the FAR, which comprehensively regulate the procurement, formation, administration and performance of government contracts;
- extensive U.S. government regulation of government-funded clinical research activities, including, for example, compliance requirements relating to protection of human and animal research subjects, restrictions on uses of human research materials, and conditions on dissemination of research results.
- business ethics and public integrity obligations, which govern areas such as conflicts of interest, the recruitment and hiring of former government employees, bribes and gratuities, and limitations on and mandatory disclosure of lobbying activities, pursuant to laws such as the Anti-Kickback Act, the Procurement Integrity Act, the False Claims Act and the Foreign Corrupt Practices Act; and
- export control and import laws and regulations.

In addition, U.S. government agencies such as the Department of Health and Human Services and the Defense Contract Audit Agency routinely audit and investigate government contractors for compliance with applicable laws and standards. These agencies review a contractor's performance under its contracts, including contracts with BARDA, cost structure and compliance with applicable laws, regulations and standards.

These agencies also review the adequacy of, and a contractor's compliance with, its internal control systems and policies, including the contractor's purchasing, property, estimating, compensation and management information systems. Any costs found to be unreasonable, unallowable under applicable reimbursement policies, or improperly allocated to a specific contract will not be paid, while such costs already paid must be refunded. Claims for costs that are expressly unallowable under applicable reimbursement policies may also be subject to administrative penalties. If we are audited and such audit uncovers improper or illegal activities, we may be subject to civil and criminal penalties and administrative sanctions, including:

- termination of any government contracts, including our BARDA contract;
- suspension of payments;
- administrative sanctions, such as long-term monitoring arrangements;
- fines; and
- suspension, debarment, or exclusion from eligibility for U.S. government contracts, funding programs and regulatory approvals.

In addition, we could suffer serious reputational harm if allegations of impropriety were made against us, which could jeopardize our other research programs, deter research institutions from engaging with us, and cause our stock price to decrease.

We depend on collaborations with third parties for the development and commercialization of some of our product candidates. If those collaborations are not successful, we may not be able to capitalize on the market potential of these product candidates.

We have entered into a license and commercialization agreement with Eurofarma pursuant to which we granted Eurofarma rights to commercialize ridinilazole in specified countries in South America, Central America and the Caribbean. We are evaluating additional options to maximize the commercial opportunity for ridinilazole, including the relative merits of retaining our remaining commercialization rights for ourselves, seeking third-party collaborators for ridinilazole and/or securing additional non-dilutive funding from government entities, philanthropic organizations and charities. In addition, we have entered into a license and collaboration agreement with Sarepta to commercialize ezutromid in Europe and other geographies, and, we plan to continue to evaluate the potential for utilizing collaboration, distribution and marketing arrangements with third parties to commercialize ezutromid in geographies where we retain commercialization rights, including the United States. Moreover, we may seek third-party collaborators for development and commercialization of any future product candidates.

Our likely future collaborators for any marketing, distribution, development, licensing or broader collaboration arrangements include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. Under our license and collaboration agreement with Sarepta and our license and commercialization agreement with Eurofarma we have, and under any such arrangements we enter into with any third parties in the future we will likely have, limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Our ability to generate revenues from these arrangements will depend on our collaborators' abilities and efforts to successfully perform the functions assigned to them in these arrangements.

Our current collaborations pose, and any future collaboration likely will pose, numerous risks to us, including the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations and may not perform their obligations as expected;
- collaborators may deemphasize or not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborators' strategic focus, including as a result of a sale or disposition of a business unit or development function, or available funding, or external factors such as an acquisition that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;

- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- a collaborator with marketing and distribution rights to multiple products may not commit sufficient resources to the marketing and distribution of our product relative to other products;
- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
- disputes may arise between the collaborator and us as to the ownership of intellectual property arising during the collaboration;
- we may grant exclusive rights to our collaborators, which would prevent us from collaborating with others;
- disputes may arise between the collaborators and us that result in the delay or termination of the research, development or commercialization of our products or product candidates or that result in costly litigation or arbitration that diverts management attention and resources; and
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates.

For example, in 2009, we assigned certain technology relating to our DMD program to BioMarin. BioMarin conducted a Phase 1 clinical trial of a prior formulation of ezutromid in 48 healthy adult volunteers. In this clinical trial, subjects achieved low systemic exposure of the drug and there was variability of systemic exposure across subjects. Following this clinical trial of a prior formulation of ezutromid, BioMarin elected not to continue development of our assigned technology, citing pharmaceutical and pharmacokinetic challenges. In public statements, BioMarin indicated that it had concluded that the likelihood of achieving a therapeutic effect in DMD patients was highly unlikely. In 2010, BioMarin transferred the assets, and all commercialization rights, back to us.

Collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. If a collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our product development or commercialization program could be delayed, diminished or terminated.

Use of third parties to manufacture our product candidates may increase the risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We do not own or operate manufacturing facilities for the production of clinical or commercial supplies of our product candidates. We have limited personnel with experience in drug manufacturing and lack the resources and the capabilities to manufacture any of our product candidates on a clinical or commercial scale. We currently rely on third parties for supply of the active pharmaceutical ingredients, or API, in our product candidates. Our strategy is to outsource all manufacturing of our product candidates and products to third parties.

We do not currently have any agreements with third-party manufacturers for the long-term clinical or commercial supply of any of our product candidates. We currently engage a single third-party manufacturer to provide clinical material of the API and fill and finish services for the final drug product of the F3 formulation of ezutromid that is being used in our Phase 2 clinical trial. We are engaged with a different drug product manufacturer to provide bulk drug product of the F6 formulation of ezutromid. A different third party manufacturer provides fill and finish services to supply the final drug product of the F6 formulation of ezutromid. We are engaged with a different third-party vendor to provide labelling, packaging and distribution services for the F3 and F6 formulations of ezutromid. We are engaged with another third-party manufacturer to provide clinical material of the API of ridinilazole with a different supplier responsible for fill and finish services to supply the final drug product for use in the planned Phase 3 clinical trials. We may be unable to conclude agreements for commercial supply with third-party manufacturers, or may be unable to do so on acceptable terms.

Even if we are able to establish and maintain arrangements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how; and
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Third-party manufacturers may not be able to comply with current good manufacturing practice, or cGMP, regulations or similar regulatory requirements outside the United States. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our product candidates.

Our product candidates and any products that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us.

In addition, in order to conduct late-stage clinical trials of our product candidates, we will need to have them manufactured in large quantities. Our third-party manufacturers may be unable to successfully increase the manufacturing capacity for any of our product candidates in a timely or cost-effective manner, or at all.

The third-party manufacturer responsible for the fill and finish services to supply the final drug product for our planned Phase 3 clinical trials of ridinilazole experienced challenges in the fill and finish process used to manufacture test batches of the clinical supply of ridinilazole, specifically the manufacture of ridinilazole in tablet form, which is also the form expected to be used commercially, and which is a change from the capsule form used in our completed clinical trials of ridinilazole. Because of these challenges, we were not able to obtain sufficient quantities of ridinilazole to commence our planned Phase 3 clinical trials in the first half of 2018 as originally planned and have delayed the commencement of those trials until the first quarter of 2019. If our third-party manufacturer is unable to resolve these challenges or is otherwise unable to manufacture sufficient quantity of the tablet form of ridinilazole, our planned Phase 3 clinical trials may be further delayed. Moreover, if our third-party manufacturers are unable to successfully scale up the manufacture of our product candidates in sufficient quality and quantity, the development, testing and clinical trials of that product candidate may be delayed or infeasible, and regulatory approval or commercial launch of that product candidate may be delayed or not obtained, which could significantly harm our business.

If the third parties that we engage to manufacture product for our preclinical tests and clinical trials should cease to continue to do so for any reason, we likely would experience delays in advancing these clinical trials while we identify and qualify replacement suppliers and we may be unable to obtain replacement supplies on terms that are favorable to us. In addition, if we are not able to obtain adequate supplies of our product candidates or the drug substances used to manufacture them, it will be more difficult for us to develop our product candidates and compete effectively. Our inability to obtain adequate supplies of ezutromid for preclinical tests and clinical trials may also impact Sarepta's ability to commercialize ezutromid and our second generation and future generation utrophin modulators. Under our license and collaboration agreement with Sarepta, we have agreed to use commercially reasonable efforts to supply to Sarepta active pharmaceutical ingredient, finished drug product and placebo for Sarepta to conduct research, development and commercialization activities. In addition, our inability to obtain adequate supplies of ridinilazole for clinical trials may also impact Eurofarma's ability to commercialize ridinilazole, if marketing approval is obtained, in the jurisdictions where Eurofarma holds commercialization rights. Under our license and commercialization agreement with Eurofarma, we have agreed to use commercially reasonable efforts to supply or cause to be supplied to Eurofarma sufficient commercial supply of ridinilazole.

Our current and anticipated future dependence upon others for the manufacture of our product candidates may adversely affect our future profit margins and our ability, and the ability of Sarepta, Eurofarma and any other future collaborator, to develop product candidates and commercialize any products that receive marketing approval on a timely and competitive basis.

We rely on third parties to conduct our clinical trials and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such clinical trials.

We do not independently conduct clinical trials for our product candidates. We rely on third parties, such as contract research organizations, clinical data management organizations, medical institutions and clinical investigators, to perform this function. Any of these third parties may terminate their engagements with us at any time. If we need to enter into alternative arrangements, it would delay our product development activities.

Our reliance on these third parties for clinical development activities reduces our control over these activities but does not relieve us of our responsibilities. For example, we remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the clinical trial. Moreover, the FDA requires us to comply with standards, commonly referred to as Good Clinical Practice, or GCP, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity of data and confidentiality of clinical trial participants are protected. The EMA imposes similar requirements on us for products that are the subject of clinical trials in European Union, including the United Kingdom.

We also are required to register ongoing clinical trials and post the results of completed clinical trials on a U.S. government-sponsored database, www.ClinicalTrials.gov, within certain timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions. In September 2016, the U.S. Department of Health and Human Services through the U.S. National Institutes of Health issued new regulations that expand the legal requirements for submitting registration and results information for clinical trials involving FDA-regulated drugs, biologics and medical devices. The new rules require sponsors, among other things, to post results of clinical trials for unapproved products, including unfavorable results in clinical trials for unapproved uses of approved products. The EMA has also adopted transparency requirements that apply to clinical trials conducted in the European Union (EMA Policy/0070 on the publication of clinical data for medicinal products for human use, effective as of January 1, 2015). The EMA will implement this policy on the publication of clinical data in two phases. Phase 1 concerns the publication of clinical reports submitted to EMA as part of a marketing authorization application and through the centralized procedure. It entered into force on January 1, 2015. Phase 2 concerns the publication of individual patient data. The EMA will implement this phase at a later stage. This publication requirement for clinical reports may force us to disclose know-how relating to the design of clinical trials for our product candidates, which may harm our interests by disclosing valuable know-how to our competitors, which may be used to develop competing products to our product candidates.

Furthermore, third parties that we rely on for our clinical development activities may also have relationships with other entities, some of which may be our competitors. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, marketing approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates. Our product development costs will increase if we experience delays in testing or obtaining marketing approvals.

We also rely on other third parties to store and distribute drug supplies for our clinical trials. Any performance failure on the part of our distributors could delay clinical development or marketing approval of our product candidates or commercialization of our products, producing additional losses and depriving us of potential product revenue.

Our ability to identify and develop future generations of utrophin modulators depends on our strategic alliance with the University of Oxford. If we fail to maintain our current strategic relationship with the University of Oxford, our business prospects may be materially adversely affected.

We have formed a strategic alliance with the University of Oxford pursuant to which we acquired an exclusive option to license intellectual property that is generated as part of our research in utrophin modulation. The goal of our strategic alliance with the University of Oxford is to identify and develop future generations of utrophin modulators that will include new mechanisms that could complement ezutromid. We rely on this strategic alliance and the University of Oxford to help identify and develop future generations of utrophin modulators. The continuation of a good relationship with the University of Oxford is important to our discovery and research efforts in this area. If our relationship with the University of Oxford deteriorates, if the University of Oxford fails to devote sufficient resources to the strategic alliance or if the University of Oxford challenges our option to license any intellectual property generated as part of the strategic alliance, our business prospects could be materially adversely affected.

If we are not able to establish additional collaborations, we may have to alter our development and commercialization plans.

Our product development programs and the potential commercialization of our product candidates will require substantial additional cash to fund expenses. For some of our product candidates, we may decide to collaborate further with pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by regulatory authorities, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge; and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate. We may also be restricted under future license agreements from entering into agreements on certain terms with potential collaborators. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators and changes to the strategies of the combined company.

We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of a product candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

If we fail to comply with our obligations in our funding arrangements with third parties, we could be required to repay the grant funding we have received or grant to these third parties rights under certain of our intellectual property.

We have received grant funding for some of our development programs from philanthropic, non-government and not for profit organizations and patient advocacy groups pursuant to agreements that impose development and commercialization diligence obligations on us. If we fail to comply with these obligations, in certain instances the applicable organization could require us to repay the grant funding we have received with interest or grant to the organization rights under certain of our intellectual property, which could materially adversely affect the value to us of product candidates covered by that intellectual property even if we are entitled to a share of any consideration received by such organization in connection with any subsequent development or commercialization of the product candidates.

Risks Related to our Intellectual Property

If we are unable to obtain and maintain patent protection for our technology and products, or if the scope of the patent protection is not sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize our technology and products may be adversely affected.

Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries with respect to our proprietary technology and products, including our bacterial genetics-based platform. We seek to protect our proprietary position by filing patent applications in the United States, in Europe and in certain additional foreign jurisdictions related to our novel technologies and product candidates that are important to our business. This process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, if we license technology or product candidates from third parties in the future, these license agreements may not permit us to control the preparation, filing and prosecution of patent applications, or to maintain or enforce the patents, covering the licensed technology or product candidates. These agreements could also give our licensors the right to enforce the licensed patents without our involvement, or to decide not to enforce the patents at all. Therefore, in these circumstances, these patents and applications may not be prosecuted or enforced in a manner consistent with the best interests of our business.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not result in patents being issued which protect our technology or products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents, narrow the scope of our patent protection or make enforcement more difficult or uncertain.

The laws of foreign countries may not protect our patent rights to the same extent as the laws of the United States. For example, European patent law restricts the patentability of methods of treatment of the human body more than U.S. law does. In addition, for the foregoing reasons, we may not pursue or obtain patent protection in all major markets or may not obtain protection that enables us to prevent the entry of third parties into the market.

Assuming the other requirements for patentability are met, currently, the first to file a patent application is generally entitled to the patent. However, prior to March 16, 2013, in the United States, the first to invent was entitled to the patent. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot know with certainty whether we were the first to make the inventions claimed in our U.S. patents or pending U.S. patent applications, or that we were the first to file for patent protection of such inventions outside the United States or, since March 16, 2013, within the United States.

Moreover, we may be subject to a third party preissuance submission of prior art to the U.S. Patent and Trademark Office, or the USPTO, or become involved in opposition, derivation, reexamination, reissue, inter partes review, post grant review, interference proceedings or other patent office proceedings, court litigation or International Trade Commission 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 concerning our patent rights could reduce the scope of or prevent the enforceability of, or invalidate, our patent rights, allowing third parties to commercialize our technology or products, or equivalent or similar technology or products, and so to compete directly with us, without payment to us, or, where such proceedings involve third-party patents, result in our inability to manufacture or commercialize products without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened or narrowed by operation of any of the foregoing, such an event could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Even if our patent applications issue as patents, they may not issue in a form that will provide us with adequate protection to prevent competitors from competing with us or otherwise to provide us with any competitive advantage. Our competitors may be able to circumvent our owned or licensed patents by developing similar, improved or alternative technologies or products in a non-infringing manner.

For example, although ridinilazole is protected by a U.S. composition of matter patent that recites hydrated forms of ridinilazole , and a method of treatment patent for *Clostridium difficile* associated disease, patent protection is not available for composition-of-matter claims that only recite the active pharmaceutical ingredient for ridinilazole without limitation to its use. Because ridinilazole lacks composition-of-matter protection for its active pharmaceutical ingredient, competitors will, subject to obtaining marketing approval, be able to offer and sell products with the same active pharmaceutical ingredient so long as these competitors do not infringe any other issued patents that would otherwise cover the drug's usage, methods of treatment using the drug, drug formulations, drug dosage forms and the like. Moreover, method-of-treatment patent claims are more difficult to enforce than composition-of-matter claims for reasons including off-label sale, potential divided infringement issues and use of the subject compound in non-infringing manners. Physicians are permitted to prescribe an approved product for uses that are not described in the product's labeling. Although off-label prescriptions may infringe our method-of-treatment patents, the practice is common across medical specialties and such infringement is difficult to prevent or prosecute. Off-label sales would limit our ability to generate revenue from the sale of our product candidates, if approved for commercial sale. In addition, if a third party were able to design around our dosage-form and formulation patents and create a different formulation and dosage form that is not covered by our patents or patent applications, we would likely be unable to prevent that third party from manufacturing and marketing its product.

In addition, other companies may attempt to circumvent any regulatory data protection or market exclusivity, such as orphan drug exclusivity in the United States, which we obtain under applicable legislation, which may require us to allocate significant resources to preventing such circumvention. Legal and regulatory developments in the European Union and elsewhere may also result in clinical trial data submitted as part of a marketing authorization application becoming publicly available. Such developments could enable other companies to use our clinical trial data to assist in their own product development and to obtain marketing authorizations in the European Union and in other jurisdictions. Such developments may also require us to allocate significant resources to prevent other companies from circumventing or violating our intellectual property rights. Our attempts to prevent third parties from circumventing our intellectual property and other rights may ultimately be unsuccessful. We may also fail to take the required actions or pay the necessary fees to maintain our patents.

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 United States and abroad. Such challenges may result in loss of exclusivity 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. Future changes in U.S. statutory or case law beyond our control could affect some or all of the foregoing possibilities. 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. This could be the case even after giving effect to patent term extensions and data exclusivity provisions preventing third parties from relying on clinical trial data filed by us for regulatory approval in support of their own applications for such approval. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

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

Competitors may infringe our patents, trademarks, copyrights or other intellectual property. To counter infringement or unauthorized use, we may be required to file claims, which can be expensive and time-consuming. Any claims we assert against perceived infringers could provoke these parties to assert counterclaims against us alleging that we infringe their intellectual property or that our patent and other intellectual property rights are invalid or unenforceable, including for anti-trust reasons. As a result, in a patent infringement proceeding, a court or administrative body may decide that a patent of ours is invalid or unenforceable, in whole or in part, or may construe the patent's claims narrowly and so refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the competitor technology in question. Even if we are successful in a patent infringement action, the unsuccessful party may subsequently raise antitrust issues and bring a follow-on action thereon. Antitrust issues may also provide a bar to settlement or constrain the permissible settlement terms. Further, settlement agreements in the pharmaceutical sector are the subject of ongoing review by the antitrust authorities in the European Union.

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

Our commercial success depends upon our ability and the ability of our collaborators to develop, manufacture, market and sell our product candidates and use our proprietary technologies, including our bacterial genetics-based platform, without infringing the intellectual property and other proprietary rights of third parties. There is considerable intellectual property litigation in the biotechnology and pharmaceutical industries, and we may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology, including interference, derivation, inter partes review, reexamination, reissue or post-grant review proceedings before the USPTO. The risks of being involved in such litigation and office proceedings may also increase as our product candidates approach commercialization, and as we gain greater visibility as a publicly traded company in the United States. Third parties may assert infringement claims against us based on existing or future intellectual property rights and so restrict our freedom to operate. Third parties may also seek injunctive relief against us, whereby they would attempt to prevent us from practicing our technologies altogether pending outcome of any litigation against us. We may not be aware of all such intellectual property rights potentially relating to our product candidates prior to their assertion against us. For example, we have not conducted an in-depth freedom-to-operate search or analysis for ezutromid or ridinilazole. Any freedom-to-operate search or analysis previously conducted may not have uncovered all relevant patents and pending patent applications, and there may be pending or future patent applications that, if issued, would block us from commercializing ezutromid or ridinilazole. Thus, we do not know with certainty whether ezutromid, ridinilazole or any other product candidate or our commercialization thereof, does not and will not infringe any third party's intellectual property.

If we are found to infringe a third party's intellectual property rights, or in order to avoid or settle litigation, we could be required to obtain a license to enable us to continue developing and marketing our products and technology. 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 as are licensed to us, and could require us to make substantial payments. Absent a license, we could be forced, including by court order, to cease commercializing the infringing technology or product. 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 or other intellectual property right. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Claims that we have misappropriated the confidential information or trade secrets of third parties, or claims that we derived our inventions from another, could have a similar negative impact on our business.

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, including our competitors or potential competitors. Although we try to ensure that our employees do not use the proprietary or otherwise confidential information or know-how of others in their work for us, we may be subject to claims that we or these employees have without authorization used or disclosed intellectual property, including trade secrets or other proprietary or confidential information, of any such employee's former employer. Litigation may be necessary to defend against these claims.

In addition, while we typically require our employees and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us and agreeing to cooperate and assist us with securing and defending our intellectual property, we may be unsuccessful in executing such an agreement with each party who in fact develops intellectual property that we regard as our own. Our and their assignment agreements may not be self-executing or may be breached, and we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property.

If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs and be a distraction to management.

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

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our ADSs and ordinary shares. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development, sales, marketing or distribution activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Accordingly, costs and lost management time, as well as 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.

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

In addition to seeking patents for some of our technology and products, we also rely on trade secrets, including unpatented know-how, technology and other proprietary and confidential information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties. However, we cannot guarantee that we have executed these agreements with each party that may have or have had access to our trade secrets or that the agreements we have executed will provide adequate protection. Any party with whom we have executed such an agreement may breach that agreement and disclose our proprietary or confidential information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. 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, particularly unpatented know-how, were to be obtained or independently developed by a competitor, our competitive position would be harmed.

Risks Related to Regulatory Approval and Marketing of our Product Candidates

Even if we complete the necessary clinical trials, the marketing approval process is expensive, time-consuming and uncertain and may prevent us from obtaining approvals for the commercialization of some or all of our product candidates. If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we will not be able to commercialize our product candidates, and our ability to generate revenue will be materially impaired.

Our product candidates, including ezutromid and ridinilazole, and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and by comparable authorities in other countries. Failure to obtain marketing approval for a product candidate will prevent us or our collaborators from commercializing the product candidate. We have not received approval to market ezutromid, ridinilazole or any of our other future product candidates from regulatory authorities in any jurisdiction.

We have only limited experience in filing and supporting the applications necessary to obtain marketing approvals for product candidates and expect to rely on third-party contract research organizations to assist us in this process. Securing marketing approval requires the submission of extensive preclinical and clinical data and supporting information to regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the regulatory authorities. Regulatory authorities may determine that ezutromid, ridinilazole or any of our other future product candidates are not effective or only moderately effective, or have undesirable or unintended side effects, toxicities, safety profiles or other characteristics that preclude us from obtaining marketing approval or that prevent or limit commercial use.

The process of obtaining marketing approvals is expensive, may take many years, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data are insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable. If we experience delays in obtaining approval or if we fail to obtain approval of our product candidates, the commercial prospects for our product candidates may be harmed and our ability to generate revenues will be materially impaired.

Additionally, on June 23, 2016, the electorate in the United Kingdom voted in favor of leaving the European Union, commonly referred to as Brexit. On March 29, 2017, the country formally notified the European Union of its intention to withdraw pursuant to Article 50 of the Lisbon Treaty. Since a significant proportion of the regulatory framework in the United Kingdom is derived from European Union directives and regulations, Brexit could materially impact the regulatory regime with respect to the approval of our product candidates in the United Kingdom or the European Union. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of Brexit or otherwise, would prevent us from commercializing our product candidates in the United Kingdom and/or the European Union and restrict our ability to generate revenue and achieve and sustain profitability. If any of these outcomes occur, we may be forced to restrict or delay efforts to seek regulatory approval in the United Kingdom and/or European Union for our product candidates, which could significantly and materially harm our business.

Our failure to obtain marketing approval in foreign jurisdictions would prevent our product candidates from being marketed in these other jurisdictions, and any approval we are granted for our product candidates in the United States and Europe would not assure approval of our product candidates in other jurisdictions.

In order to market and sell ezutromid, ridinilazole and our other future product candidates in foreign jurisdictions, we must obtain separate marketing approvals and comply with numerous and varying regulatory requirements in those jurisdictions. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ from that required to obtain FDA or EMA approval. The regulatory approval process outside the United States and Europe generally includes all of the risks associated with obtaining FDA and EMA approval. In addition, some countries outside the United States and Europe require approval of the sales price of a drug before it can be marketed. In many countries, separate procedures must be followed to obtain reimbursement. We may not obtain marketing, pricing or reimbursement approvals outside the United States and Europe on a timely basis, if at all. Approval by the FDA or the EMA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States and Europe does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA or the EMA. We may not be able to file for marketing approvals and may not receive necessary approvals to commercialize our products in any market. Marketing approvals in countries outside the United States and Europe do not ensure pricing approvals in those countries or in any other countries, and marketing approvals and pricing approvals do not ensure that reimbursement will be obtained.

Our ability to obtain and maintain conditional marketing authorizations in the European Union is limited to specific circumstances and subject to several conditions and obligations. A failure to renew any conditional approval that we obtain prior to full approval for the applicable indication would prevent us from continuing to market our products.

Conditional marketing authorizations based on incomplete clinical data may be granted for a limited number of listed medicinal products for human use, including products designated as orphan medicinal products under E.U. law, if (1) the risk-benefit balance of the product is positive, (2) it is likely that the applicant will be in a position to provide the required comprehensive clinical trial data, (3) unmet medical needs will be fulfilled and (4) the benefit to public health of the immediate availability on the market of the medicinal product outweighs the risk inherent in the fact that additional data are still required. Specific obligations, including with respect to the completion of ongoing or new studies, and with respect to the collection of pharmacovigilance data, may be specified in the conditional marketing authorization. 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. Even if we, or a third-party collaborator, obtain conditional approval for ezutromid for the treatment of DMD or ridinilazole for the treatment of CDI, we or they may not be able to renew such conditional approval.

Even if we obtain marketing approvals for our product candidates, the terms of approvals and ongoing regulation of our products may limit how we manufacture and market our products and compliance with such requirements may involve substantial resources, which could materially impair our ability to generate revenue.

Even if marketing approval of a product candidate is granted, an approved product and its manufacturer and marketer are subject to ongoing review and extensive regulation, including the requirement to implement a risk evaluation and mitigation strategy or to conduct costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of the product. We and our collaborators must also comply with requirements concerning advertising and promotion for any of our product candidates for which we obtain marketing approval. Promotional communications with respect to prescription drugs are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved labeling. Thus, neither we nor our collaborators will be able to promote any products we develop for indications or uses for which they are not approved. In addition, manufacturers of approved products and those manufacturers' facilities are required to ensure that quality control and manufacturing procedures conform to cGMP, which include requirements relating to quality control and quality assurance as well as the corresponding maintenance of records and documentation and reporting requirements. We and our contract manufacturers could be subject to periodic unannounced inspections by the FDA to monitor and ensure compliance with cGMP.

Accordingly, assuming we receive marketing approval for one or more of our product candidates, we and our contract manufacturers will continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production, product surveillance and quality control. If we are not able to comply with post-approval regulatory requirements, we could have the marketing approvals for our products withdrawn by regulatory authorities and our ability to market any future products could be limited, which could adversely affect our ability to achieve or sustain profitability. Thus, the cost of compliance with post-approval regulations may have a negative effect on our operating results and financial condition.

Any product candidate for which we obtain marketing approval will be subject to strict enforcement of post-marketing requirements and we could be subject to substantial penalties, including withdrawal of our product from the market, if we fail to comply with all regulatory requirements or if we experience unanticipated problems with our products, when and if any of them are approved.

Any product candidate for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, advertising and promotional activities for such product, will be subject to continual requirements of and review by the FDA and other regulatory authorities. These requirements include, but are not limited to, restrictions governing promotion of an approved product, submissions of safety and other post-marketing information and reports, registration and listing requirements, cGMP requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, and requirements regarding the distribution of samples to physicians and recordkeeping.

The FDA and other federal and state agencies, including the Department of Justice, or DOJ, closely regulate compliance with all requirements governing prescription drug products, including requirements pertaining to marketing and promotion of drugs in accordance with the provisions of the approved labeling and manufacturing of products in accordance with cGMP requirements. The FDA and DOJ impose stringent restrictions on manufacturers' communications regarding off-label use and if we do not market our products for their approved indications, we may be subject to enforcement action for off-label marketing. Violations of such requirements may lead to investigations alleging violations of the Food, Drug and Cosmetic Act and other statutes, including the False Claims Act and other federal and state health care fraud and abuse laws as well as state consumer protection laws. Our failure to comply with all regulatory requirements, and later discovery of previously unknown adverse events or other problems with our products, manufacturers or manufacturing processes, may yield various results, including:

- litigation involving patients taking our products;
- restrictions on such products, manufacturers or manufacturing processes;
- restrictions on the labeling or marketing of a product;
- restrictions on product distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- warning or untitled letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- damage to relationships with any potential collaborators;
- unfavorable press coverage and damage to our reputation;
- refusal to permit the import or export of our products;
- product seizure; or
- injunctions or the imposition of civil or criminal penalties.

Non-compliance by us or any future collaborator with regulatory requirements regarding safety monitoring or pharmacovigilance, and with requirements related to the development of products for the pediatric population, can also result in significant financial penalties. Similarly, failure to comply with regulatory requirements regarding the protection of personal information can also lead to significant penalties and sanctions.

Non-compliance with E.U. requirements regarding safety monitoring or pharmacovigilance, and with requirements related to the development of products for the pediatric population, can also result in significant financial penalties. Similarly, failure to comply with the European Union's requirements regarding the protection of personal information can also lead to significant penalties and sanctions.

Fast track designation by the FDA may not actually lead to a faster development or regulatory review or approval process.

If a drug is intended for the treatment of a serious or life threatening condition and the drug demonstrates the potential to address unmet medical need for this condition, the drug sponsor may apply for FDA fast track designation. The FDA has granted fast track designation for ezutromid and ridinilazole. However, a fast track designation does not ensure that either ezutromid or ridinilazole will receive marketing approval or that approval will be granted within any particular timeframe. We may also seek fast track designation for other future product candidates. Even if the FDA grants fast track designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. In addition, the FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program. Fast track designation alone does not guarantee qualification for the FDA's priority review procedures.

Priority review designation by the FDA may not lead to a faster regulatory review or approval process and, in any event, does not assure FDA approval of our product candidates.

If the FDA determines that a product candidate offers major advances in treatment or provides a treatment where no adequate therapy exists, the FDA may designate the product candidate for priority review. A priority review designation means that the goal for the FDA to review an application is six months, rather than the standard review period of ten months. Because the FDA designated ridinilazole as a qualified infectious disease product, or QIDP, ridinilazole also will receive priority review. We may also request priority review for ezutromid or other future product candidates. The FDA has broad discretion with respect to whether or not to grant priority review status to a product candidate, so even if we believe a particular product candidate is eligible for such designation or status, the FDA may decide not to grant it. Moreover, a priority review designation does not necessarily mean a faster regulatory review process or necessarily confer any advantage with respect to approval compared to conventional FDA procedures. Receiving priority review from the FDA does not guarantee approval within the six-month review cycle or thereafter.

We may not be able to obtain orphan drug exclusivity for our product candidates. If our competitors are able to obtain orphan drug exclusivity for their products that are the same drug as our product candidates, or can be classified as a similar medicinal product within the meaning of E.U. law, we may not be able to have competing products approved by the applicable regulatory authority for a significant period of time.

Regulatory authorities in some jurisdictions, including Europe and the United States, may designate drugs for relatively small patient populations as orphan drugs. The FDA has granted orphan drug designation to ezutromid for the treatment of DMD, and the EMA has designated ezutromid as an orphan medicinal product. Generally, if a product with an orphan drug designation receives the first marketing approval for the indication for which it has such designation, the product is entitled to a period of market exclusivity, which, subject to certain exceptions, precludes the EMA from accepting another marketing application for a similar medicinal product or the FDA from approving another marketing application for the same drug for the same indication for that time period. The applicable market exclusivity period is seven years in the United States and ten years in the European Union. The E.U. exclusivity period can be reduced to six years if a drug no longer meets the criteria for orphan drug designation, including if the drug is sufficiently profitable so that market exclusivity is no longer justified.

In the European Union, a "similar medicinal product" is a medicinal product containing a similar active substance or substances as contained in a currently authorized orphan medicinal product, and which is intended for the same therapeutic indication. For a drug such as ezutromid, the FDA defines "same drug" as a drug that contains the same active moiety and is intended for the same use. Obtaining orphan drug exclusivity for ezutromid for DMD, both in the United States and in Europe, may be important to the product candidate's success. If a competitor obtains orphan drug exclusivity for and approval of a product with the same indication as ezutromid before we do and if the competitor's product is the same drug or a similar medicinal product as ours, we could be excluded from the market.

Moreover, even if we obtain orphan drug exclusivity for ezutromid for DMD, we may not be able to maintain it. For example, if a competitive product that is the same drug or a similar medicinal product as our product candidate is shown to be clinically superior to our product candidate, any orphan drug exclusivity we have obtained will not block the approval of such competitive product. In addition, orphan drug exclusivity will not prevent the approval of a product that is the same drug as our product candidate if the FDA finds that we cannot assure the availability of sufficient quantities of the drug to meet the needs of the persons with the disease or condition for which the drug was designated. Finally, even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different products can be approved for the same condition.

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

Although the FDA has designated ezutromid for the treatment of DMD as a rare pediatric disease, that designation will not expedite approval of ezutromid nor will it ensure that we receive a Priority Review Voucher if ezutromid is approved by the FDA for the treatment of DMD.

Under the Rare Pediatric Disease Priority Review Voucher program, a sponsor who receives an approval for a drug or biologic for a "rare pediatric disease" may qualify for a voucher, which can be redeemed to receive a priority review of a subsequent marketing application for a different product. The Priority Review Voucher is requested at the time of the marketing application and awarded upon approval of the product. The voucher may only be used once, but may be sold or transferred an unlimited number of times.

In September 2016, the FDA notified us that we obtained rare pediatric disease designation for ezutromid for the treatment of DMD. The FDA's rare pediatric disease designation gives us the potential to receive a Priority Review Voucher if ezutromid receives regulatory approval. Under the 21st Century Cures Act, the Rare Pediatric Disease Priority Review Voucher program was reauthorized until 2020. However, if a drug is designated before October 1, 2020, it is eligible to receive a voucher if approved before October 2022. As a result, unless the program is further extended, we will not receive a Priority Review Voucher if ezutromid is approved after October 2022. Moreover, even if we do receive a voucher, it may not be used to secure priority review of ezutromid for the treatment of DMD since it would only be issued upon approval of that product.

The efforts of the Administration to pursue regulatory reform may limit the FDA's ability to engage in oversight and implementation activities in the normal course, and that could negatively impact our business.

The Trump Administration has taken several executive actions, including the issuance of a number of executive orders, that could impose significant burdens on, or otherwise materially delay, the FDA's ability to engage in routine regulatory and oversight activities such as implementing statutes through rulemaking, issuance of guidance, and review and approval of marketing applications. On January 30, 2017, President Trump issued an executive order, applicable to all executive agencies, including the FDA, that requires that for each notice of proposed rulemaking or final regulation to be issued in fiscal year 2017, the agency shall identify at least two existing regulations to be repealed, unless prohibited by law. These requirements are referred to as the "two-for-one" provisions. This executive order includes a budget neutrality provision that requires the total incremental cost of all new regulations in the 2017 fiscal year, including repealed regulations, to be no greater than zero, except in limited circumstances. For fiscal years 2018 and beyond, the executive order requires agencies to identify regulations to offset any incremental cost of a new regulation. In interim guidance issued by the Office of Information and Regulatory Affairs within the Office of Management and on February 2, 2017, the administration indicates that the "two-for-one" provisions may apply not only to agency regulations, but also to significant agency guidance documents. It is difficult to predict how these requirements will be implemented, and the extent to which they will impact the FDA's ability to exercise its regulatory authority. If these executive actions impose constraints on FDA's ability to engage in oversight and implementation activities in the normal course, our business may be negatively impacted.

Our relationships with customers, healthcare providers and professionals and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers, physicians and third-party payors play a primary role in the recommendation and prescription of any product candidates, including ezutromid or ridinilazole, for which we obtain marketing approval. Our future arrangements with customers, healthcare providers and professionals and third-party payors may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute our products for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations, include, and are not limited to, the following:

- The federal healthcare anti-kickback statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federally funded healthcare programs such as Medicare and Medicaid. This statute has been broadly interpreted to apply to manufacturer arrangements with prescribers, purchasers and formulary managers, among others. Several other countries, including the United Kingdom, have enacted similar anti-kickback, fraud and abuse, and healthcare laws and regulations.
- The federal False Claims Act imposes civil penalties, including civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. The government and qui tam relators have brought False Claims Act actions against pharmaceutical companies on the theory that their practices have caused false claims to be submitted to the government. There is also a separate false claims provision imposing criminal penalties.
- The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information.
- HIPAA also imposes criminal liability for knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services.

- The federal Physician Sunshine Act requirements under the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act of 2010, referred to together as the Affordable Care Act, require manufacturers of drugs, devices, biologics and medical supplies to report to the Department of Health and Human Services information related to payments and other transfers of value made to or at the request of covered recipients, such as physicians and teaching hospitals, and physician ownership and investment interests in such manufacturers. Payments made to physicians and research institutions for clinical trials are included within the ambit of this law.
- Analogous state laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers, and 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 physicians and other health care providers or marketing expenditures. Additionally, some state and local laws require the registration of pharmaceutical sales representatives in the jurisdiction.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. Exclusion, suspension and debarment from government funded healthcare programs would significantly impact our ability to commercialize, sell or distribute any drug. If any of the physicians or other providers or entities with whom we expect to do business are found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

Current and future legislation may increase the difficulty and cost for us and any future collaborators to obtain marketing approval of and commercialize our product candidates and affect the prices we, or they, may obtain.

In the United States and some foreign jurisdictions, there have been and continue to be a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could, among other things, prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability, or the ability of any future collaborators, to profitably sell any products for which we, or they, obtain marketing approval. We expect that current laws, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we, or any future collaborators, may receive for any approved products.

In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the ACA. Among the provisions of the ACA of potential importance to our business and our product candidates are the following:

- an annual, non-deductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program;
- expansion of healthcare fraud and abuse laws, including the civil False Claims Act and the federal Anti-Kickback Statute, new government investigative powers and enhanced penalties for noncompliance;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% (and 70% starting January 1, 2019) point-of-sale discounts off negotiated prices;
- extension of manufacturers' Medicaid rebate liability;
- expansion of eligibility criteria for Medicaid programs;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- new requirements to report certain financial arrangements with physicians and teaching hospitals;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. These changes include the Budget Control Act of 2011, which, among other things, led to aggregate reductions to Medicare payments to providers of up to 2% per fiscal year that started in 2013 and, due to subsequent legislative amendments to the statute, will stay in effect through 2027 unless additional congressional action is taken, and the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several types of providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding and otherwise affect the prices we may obtain for any of our product candidates for which we may obtain regulatory approval or the frequency with which any such product candidate is prescribed or used. Further, there have been several recent U.S. congressional inquiries and proposed state and federal legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of drugs under Medicare and reform government program reimbursement methodologies for drug products.

We expect that these healthcare reforms, as well as other healthcare reform measures that may be adopted in the future, may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, new payment methodologies and additional downward pressure on the price that we receive for any approved product and/or the level of reimbursement physicians receive for administering any approved product we might bring to market. Reductions in reimbursement levels may negatively impact the prices we receive or the frequency with which our products are prescribed or administered. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors.

With enactment of the Tax Cuts and Jobs Act of 2017, which was signed by the President on December 22, 2017, Congress repealed the "individual mandate." The repeal of this provision, which requires most Americans to carry a minimal level of health insurance, will become effective in 2019. According to the Congressional Budget Office, the repeal of the individual mandate will cause 13 million fewer Americans to be insured in 2027 and premiums in insurance markets may rise. Additionally, on January 22, 2018, President Trump signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain ACA-mandated fees, including the so-called "Cadillac" tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices. Further, the Bipartisan Budget Act of 2018, among other things, amends the ACA, effective January 1, 2019, to increase from 50% to 70% the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D and to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole". Further, each chamber of the Congress has put forth multiple bills designed to repeal or repeal and replace portions of the ACA. Although none of these measures has been enacted by Congress to date, Congress may consider other legislation to repeal and replace elements of the ACA. The Congress will likely consider other legislation to replace elements of the ACA, during the next Congressional session.

The Trump Administration has also taken executive actions to undermine or delay implementation of the ACA. In January 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the ACA to waive, defer, grant exemptions from, or delay the implementation of any provision of the ACA that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. In October 2017, the President signed a second Executive Order allowing for the use of association health plans and short-term health insurance, which may provide fewer health benefits than the plans sold through the ACA exchanges. At the same time, the Administration announced that it will discontinue the payment of cost-sharing reduction, or CSR, payments to insurance companies until Congress approves the appropriation of funds for such CSR payments. The loss of the CSR payments is expected to increase premiums on certain policies issued by qualified health plans under the ACA. A bipartisan bill to appropriate funds for CSR payments was introduced in the Senate, but the future of that bill is uncertain. We will continue to evaluate the effect that the ACA and its possible repeal and replacement could have on our business.

The costs of prescription pharmaceuticals has also been the subject of considerable discussion in the United States, and members of Congress and the Administration have stated that they will address such costs through new legislative and administrative measures. To date, there have been several recent U.S. congressional inquiries and proposed and enacted state and federal legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of drugs under Medicare and reform government program reimbursement methodologies for drug products. At the federal level, the Trump administration's budget proposal for fiscal year 2019 contains further drug price control measures that could be enacted during the 2019 budget process or in other future legislation, including, for example, measures to permit Medicare Part D plans to negotiate the price of certain drugs under Medicare Part B, to allow some states to negotiate drug prices under Medicaid, and to eliminate cost sharing for generic drugs for low-income patients. While any proposed measures will require authorization through additional legislation to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. At the state level, legislatures are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

Legislative and regulatory proposals have also been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us and any future collaborators to more stringent product labeling and post-marketing testing and other requirements.

In the European Union, similar political, economic and regulatory developments may affect our ability to profitably commercialize our products. In addition to continuing pressure on prices and cost containment measures, legislative developments at the European Union or member state level may result in significant additional requirements or obstacles that may increase our operating costs.

We are subject to anti-corruption laws, as well as export control laws, customs laws, sanctions laws and other laws governing our operations. If we fail to comply with these laws, we could be subject to civil or criminal penalties, other remedial measures and legal expenses, which could adversely affect our business, results of operations and financial condition.

Our operations are subject to anti-corruption laws, including the U.K. Bribery Act 2010, or Bribery Act, the U.S. Foreign Corrupt Practices Act, 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. 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.

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 on countries and persons, customs requirements and currency exchange regulations, collectively referred to as the Trade Control laws.

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. Likewise, any investigation of any potential violations of the Bribery Act, the FCPA, other anti-corruption laws or Trade Control laws by U.K., U.S. or other authorities could also have an adverse impact on our reputation, our business, results of operations and financial condition.

Risks Related to Employee Matters and Managing Growth

Our future success depends on our ability to retain our chief executive officer and other key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on the principal members of our executive and scientific teams, including Glyn Edwards, our Chief Executive Officer, Erik Ostrowski, our Chief Financial Officer, Dr. David Roblin, our Chief Operating Officer, Chief Medical Officer and President of Research and Development, Dr. Jonathon Tinsley, our Chief Scientific Officer, DMD, and Dr. Richard Vickers, our Senior Vice President, Anti-Infectives. Although we have formal employment agreements with each of our executive officers, these agreements do not prevent our executives from terminating their employment with us at any time. We do not maintain "key person" insurance on any of our executive officers. The unplanned loss of the services of any of these persons could materially impact the achievement of our research, development and commercialization objectives.

Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel, including in the United States where we plan to continue to expand our physical presence, will also be critical to our success. We may not be able to attract and retain these personnel on acceptable terms given the competition among numerous biotechnology and pharmaceutical companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

We expect to expand our development, regulatory and sales and marketing capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of drug development, regulatory affairs and sales and marketing. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The physical expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

Our employees may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements, which could cause significant liability for us and harm our reputation.

We are exposed to the risk of employee fraud or other misconduct, including intentional failures to comply with FDA or Office of Inspector General regulations or similar regulations of comparable non-U.S. regulatory authorities, provide accurate information to the FDA or comparable non-U.S. regulatory authorities, comply with manufacturing standards we have established, comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable non-U.S. regulatory authorities, report financial information or data accurately or disclose unauthorized activities to us. Similar employee fraud or misconduct could occur with respect to reimbursement requests and other reports we are required to submit to BARDA. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation, or a request for the reimbursement of expenses that were not incurred, which could cause BARDA to terminate our contract with them. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws, standards or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of significant fines or other sanctions.

Risks Related to Ownership of the American Depositary Shares and our Ordinary Shares

The prices of the ADSs and our ordinary shares may be volatile and fluctuate substantially, which could result in substantial losses for holders of the ADSs and our ordinary shares.

The market prices of the ADSs on the Nasdaq Global Market and of our ordinary shares on AIM may be volatile and fluctuate substantially. The stock market in general and the market for smaller pharmaceutical and biotechnology companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, holders of the ADSs and our ordinary shares may not be able to sell their ADSs or ordinary shares at or above the price at which they were purchased. The market price for the ADSs and ordinary shares may be influenced by many factors, including:

- the success of competitive products or technologies;
- results of clinical trials of ezutromid, ridinilazole and any other future product candidate that we develop;
- results of clinical trials of product candidates of our competitors;
- changes or developments in laws or regulations applicable to ezutromid and ridinilazole and any other future product candidates that we develop;
- our entry into, and the success of, any collaboration agreements with third parties;
- the operation of our contract with BARDA, and whether BARDA elects to pursue its option work segments beyond the base period;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our product candidates or clinical development programs;
- the results of our efforts to discover, develop, acquire or in-license additional product candidates, products or technologies;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;

- changes in the structure of healthcare payment systems;
- market conditions in the biotechnology and pharmaceutical sectors;
- general economic, industry and market conditions;
- the trading volume of ADSs on the Nasdaq Global Market and of our ordinary shares on AIM; and
- the other factors described in this "Risk Factors" section.

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

The ADSs are traded on the Nasdaq Global Market, and our ordinary shares are listed on AIM. The dual listing of our ordinary shares and the ADSs may dilute the liquidity of these securities in one or both markets and may adversely affect the maintenance of an active trading market for the ADSs in the United States. The price of the ADSs could also be adversely affected by trading in our ordinary shares on AIM. Although our ordinary shares are currently listed on AIM, we may decide at some point in the future to delist our ordinary shares from AIM, and our ordinary shareholders may approve such delisting. We cannot predict the effect such delisting of our ordinary shares on AIM would have on the market price of the ADSs on the Nasdaq Global Market.

Securities traded on AIM may carry a higher risk than shares traded on other exchanges that may impact the value of your investment.

Our ordinary shares are currently traded on AIM. Investment in equities traded on AIM is perceived by some to carry a higher risk than an investment in equities quoted on exchanges with more stringent listing requirements, such as the London Stock Exchange, New York Stock Exchange or the Nasdaq Stock Market. This is because AIM imposes less stringent corporate governance and ongoing reporting requirements than those other exchanges. In addition, AIM requires only semi-annual, rather than quarterly, financial reporting. You should be aware that the value of our ordinary shares may be influenced by many factors, some of which may be specific to us and some of which may affect AIM-listed companies generally, including the depth and liquidity of the market, our performance, a large or small volume of trading in our ordinary shares, legislative changes and general economic, political or regulatory conditions, and that the prices may be volatile and subject to extensive fluctuations. Therefore, the market price of our ordinary shares underlying the ADSs may not reflect the underlying value of our company.

Substantial future sales of our ordinary shares or the ADSs in the public market, or the perception that these sales could occur, could cause the price of the ADSs to decline significantly, even if our business is doing well.

Sales of a substantial number of our ordinary shares or ADSs in the public market could occur at any time. These sales, or the perception in the market that these sales could occur, could cause the market price of the ADSs and our ordinary shares to decline. Other than the 2,934,272 ordinary shares we issued in connection with our acquisition of Discuva, which are subject to a lock-up restriction expiring on September 23, 2018 and an orderly sale arrangement limiting the sale of such ordinary shares during the twelve-month period following the expiration of such lock-up restriction, and the 2,083,000 ordinary shares purchased by one of our principal shareholders in our March 2018 placement of ordinary shares in Europe under Regulation S of the Securities Act of 1933, the ordinary shares held by our major shareholders are available for sale and are not subject to contractual and legal restrictions on resale. If any of our directors, officers or major shareholders seek to sell substantial amounts of ADSs or ordinary shares, particularly if these sales are in a rapid or disorderly manner, or other investors perceive that these sales could occur, the market price of the ADSs and our ordinary shares could decrease significantly.

Holders of ADSs may not have the same voting rights as the holders of our ordinary shares and may not receive voting materials in time to be able to exercise their right to vote.

Except as provided in the deposit agreement relating to the ADSs, holders of the ADSs will not be able to exercise voting rights attaching to the ordinary shares evidenced by the ADSs. Holders of the ADSs will have the right to instruct the depositary with respect to the voting of the ordinary shares represented by the ADSs. If we tell the depositary to solicit your voting instructions, the depositary is required to endeavor to carry out your instructions. If we do not tell the depositary to solicit your voting instructions (and we are not required to do so), you can still send instructions, and, in that case, the depositary may, but is not required to, carry out those instructions. You may not receive voting materials in time to instruct the depositary to vote, and it is possible that you, or persons who hold their ADSs through brokers, dealers or other third parties, will not have the opportunity to exercise a right to vote.

As a foreign private issuer, we are exempt from a number of rules under the U.S. securities laws and are permitted to file less information with the Securities and Exchange Commission than U.S. companies. This may limit the information available to holders of the ADSs.

We are a "foreign private issuer," as defined in the rules and regulations of the Securities and Exchange Commission, or the SEC, and, consequently, we are not subject to all of the disclosure requirements applicable to companies organized within the United States. For example, we are exempt from certain rules under the U.S. Securities Exchange Act of 1934, as amended, or the Exchange Act, that regulate disclosure obligations and procedural requirements related to the solicitation of proxies, consents or authorizations applicable to a security registered under the Exchange Act. In addition, our officers and directors are exempt from the reporting and "short-swing" profit recovery provisions of Section 16 of the Exchange Act and related rules with respect to their purchases and sales of our securities. Moreover, we are not required to file periodic reports and financial statements with the SEC as frequently or as promptly as U.S. public companies. Accordingly, there may be less publicly available information concerning our company than there is for public companies organized in the United States.

As a foreign private issuer, we will continue to file an annual report on Form 20-F within four months of the close of each fiscal year ending January 31 and reports on Form 6-K relating to certain material events promptly after we publicly announce these events. However, because of the above exemptions for foreign private issuers, our shareholders will not be afforded the same protections or information generally available to investors holding shares in public companies organized in the United States.

As a foreign private issuer, we are not subject to certain Nasdaq corporate governance rules applicable to public companies organized in the United States.

We rely on a provision in the Nasdaq Stock Market's Listed Company Manual that allows us to follow English company law in general and the U.K. Companies Act 2006 in particular with regard to certain aspects of corporate governance. This allows us to follow certain corporate governance practices that differ in significant respects from the corporate governance requirements applicable to U.S. companies listed on the Nasdaq Stock Market.

For example, we are exempt from regulations of the Nasdaq Stock Market that require listed companies organized in the United States to:

- have a majority of the board of directors consist of independent directors;
- require non-management directors to meet on a regular basis without management present;
- adopt a code of conduct and promptly disclose any waivers of the code for directors or executive officers that should address certain specified items;
- have an independent compensation committee;
- have an independent nominating committee;
- solicit proxies and provide proxy statements for all shareholder meetings;
- review related party transactions; and
- seek shareholder approval for the implementation of certain equity compensation plans and issuances of ordinary shares.

As a foreign private issuer, we are permitted to follow home country practice in lieu of the above requirements. Accordingly, holders of the ADSs and our ordinary shares may not have the same protections afforded to shareholders of companies that are subject to these Nasdaq Stock Market requirements.

In accordance with our Nasdaq Stock Market listing, our Audit Committee is required to comply with the provisions of Section 301 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, and Rule 10A-3 of the Exchange Act, both of which are also applicable to U.S. companies listed on the Nasdaq Stock Market. Because we are a foreign private issuer, however, our Audit Committee is not subject to additional requirements of the Nasdaq Stock Market applicable to listed U.S. companies, including an affirmative determination that all members of the Audit Committee are "independent," using more stringent criteria than those applicable to us as a foreign private issuer.

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

As a "foreign private issuer" we are not required to comply with all the periodic disclosure and current reporting requirements of the Exchange Act and related rules and regulations. Under SEC rules, the determination of foreign private issuer status is made annually on the last business day of an issuer's most recently completed second fiscal quarter and, accordingly, the next determination will be made with respect to us on July 31, 2018.

In the future, we would lose our foreign private issuer status if a majority of our ordinary shares (including those represented by ADSs) are owned by U.S. shareholders and a majority of our shareholders, directors or management are U.S. citizens or residents and we fail to meet additional requirements necessary to avoid loss of foreign private issuer status. The regulatory and compliance costs to us under applicable U.S. securities laws as a U.S. domestic issuer may be significantly higher than our current regulatory and compliance costs. If we are not a foreign private issuer, we will be required to file periodic reports and registration statements on U.S. domestic issuer forms with the SEC, which are more detailed and extensive than the forms available to a foreign private issuer. For example, the annual report on Form 10-K requires domestic issuers to disclose executive compensation information on an individual basis with specific disclosure regarding the domestic compensation philosophy, objectives, annual total compensation (base salary, bonus, equity compensation) and potential payments in connection with change in control, retirement, death or disability, while the annual report on Form 20-F permits foreign private issuers to disclose compensation information on an aggregate basis. We will also have to report our results under U.S. Generally Accepted Accounting Principles, rather than under International Financial Reporting Standards, as a domestic registrant. We will also have to mandatorily comply with U.S. federal proxy requirements, and our officers, directors and principal shareholders will become subject to the short-swing profit disclosure and recovery provisions of Section 16 of the Exchange Act. We may also be required to modify certain of our policies to comply with corporate governance practices required for U.S. domestic issuers. Such conversion and modifications will involve additional costs. In addition, we may lose our ability to rely upon exemptions from certain corporate governance requirements of the Nasdaq Stock Market that are available to foreign private issuers.

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

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and may remain an emerging growth company until January 31, 2021, or such earlier time that we are no longer an emerging growth company. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

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

In addition, the JOBS Act also provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this exemption and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

We incur increased costs as a result of operating as a company with ADSs that are publicly traded in the United States, and our management is now required to devote substantial time to new compliance initiatives.

As a company with ADSs that are publicly traded in the United States, and particularly after we are no longer an "emerging growth company," we have incurred and will continue to incur significant legal, accounting and other expenses that we did not previously incur. In addition, the Sarbanes-Oxley Act, the Dodd-Frank Act, the listing requirements of the Nasdaq Stock Market and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations increase our legal and financial compliance costs and make some activities more time-consuming and costly.

However, for as long as we remain an emerging growth company, we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies as described in the preceding risk factor. We may remain an emerging growth company until January 31, 2021, although if the market value of our share capital held by non-affiliates exceeds $700 million as of any July 31 before that time or if we have annual gross revenues of $1.07 billion or more in any fiscal year, we would cease to be an emerging growth company as of January 31 of the applicable year. We also would cease to be an emerging growth company if we issue more than $1.0 billion of non-convertible debt over a three-year period.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, shareholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of the ADSs.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. In addition, any testing by us conducted in connection with Section 404 of the Sarbanes-Oxley Act, or Section 404, or any subsequent testing by our independent registered public accounting firm, as and when required, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our financial statements or identify other areas for further attention or improvement. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of the ADSs.

Pursuant to Section 404, we are required to furnish a report by our management on our internal control over financial reporting. However, as 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 until we are no longer an emerging growth company. To achieve compliance with Section 404 within the prescribed period, we are engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially 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 that our internal control over financial reporting is effective as required by Section 404. This could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

We cannot assure you that we will not be classified as a passive foreign investment company for any taxable year, which may result in adverse U.S. federal income tax consequences to U.S. holders.

Based on our estimated gross income, the average value of our gross assets and the nature of our business, taking into account the market price of the ADSs, we do not believe that we were a "passive foreign investment company," or PFIC, for U.S. federal income tax purposes for our tax year ended January 31, 2018 and do not expect to be a PFIC during our tax year ending January 31, 2019. A corporation organized outside the United States generally will be classified as a PFIC for U.S. federal income tax purposes (1) in any taxable year in which at least 75% of its gross income is passive income or on average at least 50% of the gross value of its assets is attributable to assets that produce passive income or are held for the production of passive income and (2) as to a given holder who was a holder in such year and regardless of such corporation's income or asset composition in any subsequent taxable year unless, as to that holder, certain elections are made that can entail substantial tax costs to that holder. Passive income for this purpose generally includes dividends, interest, royalties, rents and gains from commodities and securities transactions. Our status in any taxable year will depend on our assets and activities in each year, and because this is a factual determination made annually after the end of each taxable year, there can be no assurance that we will not be considered a PFIC for the current taxable year or any future taxable year. The market value of our assets may be determined in large part by reference to the market price of the ADSs and our ordinary shares, which fluctuate and which may fluctuate considerably given that market prices of biotechnology companies have been especially volatile. If we were to be treated as a PFIC for any taxable year during which a U.S. holder held the ADSs, however, certain adverse U.S. federal income tax consequences could apply to the U.S. holder. See "Item 10.E Taxation."

U.S. investors may have difficulty enforcing civil liabilities against us, our directors or members of senior management and the experts named in this Annual Report.

Our directors, certain members of our senior management and some of the experts named in this Annual Report are non-residents of the United States, and all or a substantial portion of the assets of such persons are located outside the United States. As a result, it may not be possible to serve process on such persons or us in the United States or to enforce judgments obtained in U.S. courts against them or us based on civil liability provisions of the securities laws of the United States. Further, there is doubt as to whether English courts would enforce certain civil liabilities under U.S. securities laws pursuant to judgments of U.S. courts based upon these civil liability provisions. In addition, awards of punitive damages in actions brought in the United States or elsewhere may be unenforceable in the United Kingdom. An award for monetary damages under the U.S. securities laws would be considered punitive if it does not seek to compensate the claimant for loss or damage suffered and is intended to punish the defendant. The enforceability of any judgment in the United Kingdom will depend on the particular facts of the case as well as the laws and treaties in effect at the time. The United States and the United Kingdom do not currently have a treaty providing for recognition and enforcement of judgments (other than arbitration awards) in civil and commercial matters.

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

We are incorporated under U.K. law. The rights of holders of ordinary shares and, therefore, certain of the rights of holders of ADSs, are governed by U.K. law, including the provisions of the Companies Act 2006, and by our Articles of Association. These rights differ in certain respects from the rights of shareholders in typical U.S. corporations.

Holders of ordinary shares and ADSs may not receive a return on their ordinary shares or ADSs other than through the sale of their ordinary shares or ADSs.

Under current U.K. law, a company's accumulated realized profits must exceed its accumulated realized losses (on a non-consolidated basis) before dividends can be paid. Therefore, we must have distributable profits before issuing a dividend. We have not paid dividends in the past on our ordinary shares. We intend to retain earnings, if any, for use in our business and do not anticipate paying any cash dividends in the foreseeable future. Accordingly, other than through the sale of the ADSs or our ordinary shares, holders of such securities are unlikely to receive a return in the foreseeable future.

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

The depositary for the ADSs has agreed to pay to holders of the ADSs or distribute the cash dividends or other distributions it or the custodian receives on our ordinary shares or other deposited securities after deducting its fees and expenses. Holders of ADSs will receive these distributions in proportion to the number of our ordinary shares such ADSs represent. However, in accordance with the limitations set forth in the deposit agreement, it may be unlawful or impractical to make a distribution available to holders of the ADSs. We have no obligation to take any other action to permit the distribution of the ADSs, ordinary shares, rights or anything else to holders of the ADSs. This means that holders of the ADSs may not receive the distributions we make on our ordinary shares or any value from them if it is unlawful or impractical to make them available to such holders. These restrictions may have a material adverse effect on the value of the ADSs.

Our executive officers, directors and principal shareholders maintain the ability to control or significantly influence all matters submitted to stockholders for approval.

As of April 1, 2018, our executive officers, directors and principal shareholders beneficially owned, in the aggregate, ordinary shares and ADSs representing approximately 33.17% of our outstanding share capital. As a result, if these shareholders were to choose to act together, they would be able to control or significantly influence all matters submitted to our shareholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, would control or significantly influence the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of voting power could delay or prevent an acquisition of our company on terms that other holders of ADSs and ordinary shares may desire.

In addition, and in accordance with the terms of our articles of association, our board maintains a classified board structure such that not all members of the board are elected at one time. All of our directors are subject to election by our shareholders at the first annual general meeting after their appointment to our board and to re-election by our shareholders at least once every three years thereafter. Because our board of directors is responsible for appointing the members of our management team, this structure may frustrate or prevent any attempts by our shareholders to replace or remove our current management by making it more difficult for shareholders to replace members of our board of directors.

If equity research analysts stop publishing research or reports about our business or if they issue unfavorable commentary or downgrade the ADSs or our ordinary shares, the prices of the ADSs or our ordinary shares could decline.

The trading market for the ADSs and our ordinary shares relies in part on the research and reports that equity research analysts publish about us and our business. We do not control these analysts. The price of the ADSs or our ordinary shares could decline if one or more equity research analysts downgrades such securities or if analysts issue other unfavorable commentary about us or our business. In addition, if one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the trading prices and trading volumes of the ADS and our ordinary shares to decline.

We are exposed to risks related to currency exchange rates.

We conduct a significant portion of our operations outside of the United Kingdom. Because our financial statements are presented in pounds sterling, changes in currency exchange rates have had and could have a significant effect on our operating results when our operating results are translated into U.S. dollars. Exchange rate fluctuations between local currencies and the pound sterling create risk in several ways, including the following: weakening of the pound sterling may increase the pound sterling cost of overseas research and development expenses and the cost of sourced product components outside the United Kingdom; strengthening of the pound sterling may decrease the value of our revenues denominated in other currencies; the exchange rates on non-sterling transactions and cash deposits can distort our financial results; and commercial pricing and profit margins are affected by currency fluctuations.

We have broad discretion in the use of our cash and cash equivalents and may not use them effectively.

Our management has broad discretion in the use of our cash and cash equivalents and could spend our cash in ways that do not improve our results of operations or enhance the value of the ADSs and ordinary shares. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the market price of the ADSs and ordinary shares to decline and delay the development of our product candidates.

Item 4: Information on the Company

A. History and Development of the Company

We were founded in 2003 and are a public limited company incorporated under the laws of England and Wales with the Registrar of Companies of England and Wales, United Kingdom. Our principal office, which we moved to in March 2017, is located at 136a Eastern Avenue, Milton Park, Abingdon, Oxfordshire, OX14 4SB, and our telephone number is +(44) 1235 443 939. Our U.S. operations are conducted by our wholly owned subsidiary Summit Therapeutics Inc., a Delaware corporation. Our ordinary shares have traded on AIM, which is a sub-market of the London Stock Exchange, since October, 2004, under the symbol "SUMM" and our American Depositary Shares have traded on the Nasdaq Global Market since March 2015, under the symbol "SMMT."

Our website address is www.summitplc.com. The information contained on, or that can be accessed from, our website does not form part of this Annual Report. Our agent for service of process in the United States is C T Corporation System, 111 Eighth Avenue, New York, New York 10011.

In the three-year period ended January 31, 2018, we have invested a total of £0.8 million in equipment and facilities.

B. Business

Overview

We are a biopharmaceutical company focused on the discovery, development and commercialization of novel medicines for indications for which there are no existing or only inadequate therapies. Our focus is on rare diseases and infectious diseases. We are conducting clinical programs focused on the genetic disease Duchenne muscular dystrophy, or DMD, and the infectious disease *Clostridium difficile* infection, or CDI.

Duchenne Muscular Dystrophy

Our lead DMD product candidate is ezutromid (formerly SMT C1100), an orally administered small molecule. We are conducting a Phase 2 open label, multi-center, clinical trial of ezutromid in patients with DMD. This trial is designed to evaluate the potential benefits of longer-term dosing of ezutromid by measuring a number of endpoints related to muscle health and muscle function, along with monitoring the safety and tolerability of long-term exposure to ezutromid. We refer to this Phase 2 clinical trial as PhaseOut DMD, a Phase 2 proof of concept clinical trial. On January 25, 2018, we announced interim data from the first 24 weeks of treatment in PhaseOut DMD. On February 26, 2018, we announced further interim data from the first 24-weeks of treatment in PhaseOut DMD. We are accelerating preparatory activities for a placebo controlled clinical trial for ezutromid, and for a potential regulatory filing of ezutromid based on the 48-week results from PhaseOut DMD. We expect to report top-line data from the full 48-week trial in the third quarter of 2018.

Our DMD program is based on utrophin modulation, an approach to treating DMD that is independent of the underlying mutations in the dystrophin gene that cause the disease. We are a leader in the field of utrophin modulation, an approach that we believe has the potential to address the entire population of DMD patients. Other DMD approaches, such as exon-skipping and suppression of nonsense mutations, only address subsets of this population. The U.S. Food and Drug Administration, or the FDA, has granted orphan drug designation to ezutromid for the treatment of DMD, and the European Medicines Agency, or the EMA, has designated ezutromid as an orphan medicinal product. The FDA has also granted fast track designation and rare pediatric disease designation to ezutromid. In recent public statements, the FDA has stated that it recognizes the unmet medical need for DMD treatments, the devastating nature of the disease for patients and their families and the urgency to make new treatments available.

In October 2016, we entered into an exclusive license and collaboration agreement with Sarepta Therapeutics, Inc., or Sarepta, pursuant to which we granted Sarepta an exclusive license to commercialize our utrophin modulator pipeline, including ezutromid, in the European Union, Iceland, Norway, Switzerland, Turkey and the Commonwealth of Independent States, with an option to expand its commercial rights to include specified countries in Central and South America. We have retained commercialization rights to our utrophin modulator pipeline in the rest of the world.

DMD is one of the most common and the most severe form of muscular dystrophy. DMD predominantly affects males and results in the progressive wasting of muscles throughout the body. The disease typically results in death by the time DMD patients reach their late twenties. Individuals with DMD are unable to produce dystrophin, a protein essential for maintaining healthy muscle function.

Utrophin is a naturally occurring protein that is functionally and structurally similar to dystrophin. Utrophin plays an active role in the development of new muscle fibers, in particular during fetal development, and in repairing damaged muscle fibers. Utrophin production is down regulated, or switched off, in the late stages of gestation and can switch on and off as needed to repair damaged muscle. We believe that our approach of utrophin modulation can be used to maintain the production of utrophin in all skeletal muscles, including the diaphragm, and the heart to compensate for the lack of dystrophin in DMD patients, thereby restoring and maintaining healthy muscle function. This approach to treating DMD is independent of the underlying dystrophin gene mutation, and we believe has the potential to treat the entire population of DMD patients.

To date, we have conducted four Phase 1 clinical trials of ezutromid. We completed a Phase 1 clinical trial in healthy volunteers in 2012, a Phase 1b clinical trial in DMD patients in May 2014 and another Phase 1b clinical trial in DMD patients in September 2015. In addition, we completed a Phase 1 clinical trial that evaluated a new formulation of ezutromid, which we refer to as the “F6” formulation, in healthy volunteers and DMD patients in August 2016. The second Phase 1b clinical trial of ezutromid in DMD patients evaluated another clinical formulation of ezutromid, which we refer to as the "F3" formulation, and the impact of diet on plasma levels of the drug. We refer to this second Phase 1b trial as our Phase 1b modified diet trial. In all of our Phase 1 trials, ezutromid was generally well tolerated at all doses tested.

We are also currently pursuing a broad utrophin modulator technology program to develop future generation utrophin modulator product candidates. This development is being undertaken as part of a strategic alliance with research groups at the University of Oxford.

Clostridium difficile Infection

Our lead CDI product candidate is ridinilazole (formerly SMT19969), an orally administered small molecule antibiotic. We reported positive top-line results from a Phase 2 clinical trial of ridinilazole in November 2015. Ridinilazole is designed to selectively target *Clostridium difficile* bacteria without causing collateral damage to the gut flora and thereby reduce CDI recurrence rates, which is the key clinical issue in this disease. The FDA has designated ridinilazole as a qualified infectious disease product, or QIDP, and the FDA granted ridinilazole fast track status. In 2013, the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services, or CDC, highlighted CDI as one of three pathogens that pose an immediate public health threat and require urgent and aggressive action.

CDI is a bacterial infection of the colon that produces toxins causing inflammation of the colon and severe diarrhea. CDI can also result in more serious disease complications, including pseudomembranous colitis, bowel perforation, toxic megacolon and sepsis. CDI typically develops following the use of broad spectrum antibiotics that can cause widespread damage to the natural gut flora and allow overgrowth of *Clostridium difficile* bacteria. CDI represents a serious healthcare issue in hospitals, long-term care homes and, increasingly, in the wider community. A study published in 2012 in *Clinical Infectious Diseases*, a peer reviewed journal published by the Infectious Diseases Society of America, estimated that CDI-related acute care costs total $4.8 billion per year in the United States alone.

We completed a Phase 1 clinical trial of ridinilazole in healthy volunteers in 2013. In this Phase 1 clinical trial, ridinilazole was highly selective for total clostridia bacteria with minimal impact on the other gut flora of subjects, which was consistent with the results of our preclinical studies of ridinilazole. In November 2015, we reported top-line results from our double blind, randomized, active controlled Phase 2 clinical trial that evaluated ridinilazole compared to the current standard of care, vancomycin, for the treatment of CDI. The Phase 2 clinical trial exceeded its primary endpoint of non-inferiority, with ridinilazole achieving statistical superiority over vancomycin in sustained clinical response, or SCR. The statistical superiority was driven by a large numerical reduction in recurrent disease compared with vancomycin. We subsequently reported that data from our Phase 2 clinical trial of ridinilazole showed ridinilazole to be highly preserving of the gut microbiome compared to patients who received vancomycin and experienced substantial damage to their gut microbiome that for many patients persisted during the 30-day post-treatment period. Ridinilazole was well tolerated at all doses tested in both Phase 1 and Phase 2 clinical trials. In September 2017, we reported top-line data from our exploratory open label, active controlled Phase 2 clinical trial evaluating ridinilazole compared to fidaxomicin. In the trial, ridinilazole preserved the gut microbiome of CDI patients to a greater extent than fidaxomicin, achieving a key secondary endpoint. The primary endpoint was safety with no new or unexpected safety signals identified with ridinilazole being well tolerated.

We expect to commence Phase 3 clinical trials of ridinilazole for CDI in the first quarter of 2019, and we are currently undertaking activities to prepare ridinilazole for these trials. We expect the program will consist of two Phase 3 clinical trials comparing ridinilazole to vancomycin with the primary endpoint in both trials being superiority in SCR. We also plan to include other endpoints, including ones related to health economic outcome measures.

We have been awarded a contract from Biomedical Advanced Research and Development Authority, or BARDA, an agency of the U.S. government's Department of Health and Human Services' Office of the Assistant Secretary for Preparedness and Response worth up to $62 million that will, in part, fund our planned Phase 3 clinical trials. We have also received $2.5 million upfront as part of our license and commercialization agreement with Eurofarma Laboratórios S.A., or Eurofarma, and are eligible to receive an additional $3.75 million in development milestones upon the achievement of staged patient enrollment targets in the planned Phase 3 clinical trials of ridinilazole. We continue to explore various options to maximize the value of ridinilazole, including third party collaborations and securing additional non-dilutive funding from government entities and philanthropic, non-government and not for profit organizations.

Infectious Disease Pipeline

Our goal is to build a franchise in the field of infectious diseases through the discovery and development of new mechanism antibiotics focused on treating patients with serious bacterial infections where there is a substantial unmet need and where we believe we have the ability to show advantages over current treatments. Our focus is on pathogens that are classed as representing serious healthcare threats. On December 23, 2017, we expanded our activities in the field of infectious diseases with the acquisition of Discuva Limited, a privately held U.K.-based company. Through this acquisition, we obtained a bacterial genetics-based platform that facilitates the discovery and development of new mechanism antibiotics. With this acquisition, we believe we are better placed to advance additional potential drug treatments for patients with serious bacterial infections. In March 2018, we unveiled a series of novel mechanism antibiotics identified using this platform that target gonorrhea. We expect to select a candidate to advance into IND enabling studies in the second half of 2018.

Our Product Development Pipeline

The following table summarizes our product development pipeline. We are also developing an earlier stage pipeline of future generation utrophin modulators for the treatment of DMD and antibiotic compounds for serious bacterial infections.

Program	Phase 1	Phase 2	Phase 3	Remarks
***Clostridium difficile* Infection**				
Ridinilazole* (formerly SMT19969)	*Qualified Infectious Disease Product Designation (FDA)* *Fast Track Designation (FDA)*			Expect to commence two Phase 3 clinical trials in the first quarter of 2019.
Duchenne Muscular Dystrophy				
Ezutromid† (formerly SMT C1100)	*Orphan Drug Designation (FDA)* *Orphan Medicinal Product Designation (EMA)* *Fast Track Designation (FDA)* *Rare Pediatric Disease Designation (FDA)*			Expect to report top-line 48-week data in the third quarter of 2018.

* We have granted Eurofarma an exclusive license to the commercial rights for ridinilazole in specified countries in South America, Central America and the Caribbean. We retain commercialization rights in the rest of the world.

† We have granted Sarepta an exclusive license to the commercial rights for our utrophin modulator pipeline, including ezutromid, in the European Union, Iceland, Norway, Switzerland, Turkey and the Commonwealth of Independent States, with an option to expand its commercial rights to include specified countries in Central and South America. We retain commercialization rights in the rest of the world.

Our Strategy

Our goal is to become a fully integrated biopharmaceutical company focused on the discovery, development and commercialization of novel medicines for indications for which there are no existing or only inadequate therapies, with a current focus on DMD and CDI. The key elements of our strategy to achieve this goal are:

Rapidly advance the development of our lead product candidates, ezutromid for DMD and ridinilazole for CDI.

We are focusing our resources and business efforts primarily on rapidly advancing the development of ezutromid for the treatment of DMD and ridinilazole for the treatment of CDI. We believe that there is significant market potential for each of these product candidates. We also believe that the orphan drug and fast track designations of ezutromid and the QIDP and fast track designations of ridinilazole may expedite the regulatory review process for each of these product candidates and potentially provide market protection benefits. We are currently conducting our PhaseOut DMD clinical trial. This Phase 2 clinical trial is evaluating the benefits of longer-term dosing of ezutromid by measuring a number of endpoints related to muscle health and muscle function, including distribution of utrophin protein in muscle fibers and levels of muscle fiber regeneration from muscle biopsies, changes in muscle inflammation and fat infiltration through the use of magnetic resonance parameters, the distance walked during the six minute walk test and the North Star Ambulatory Assessment, a multi-point test of motor functions. We reported 24-week biopsy data in January 2018 and reported additional findings in February 2018. These interim 24-week data showed ezutromid treatment resulted in an average increase in utrophin protein intensity, and a statistically significant decrease in muscle damage and inflammation as measured by biopsy and magnetic resonance. We are undertaking preparatory activities for a placebo controlled trial and a potential regulatory filing of ezutromid based on the 48-week results. We expect to report top-line 48 week data from PhaseOut DMD during the third quarter of 2018. We reported top-line data from our double blind, randomized, active controlled Phase 2 clinical trial that evaluated ridinilazole compared to vancomycin for the treatment of CDI in November 2015. The primary endpoint of the trial was exceeded with ridinilazole achieving statistical superiority over vancomycin in sustained clinical response, with this superiority being driven by a large numerical reduction in recurrent disease compared to vancomycin. We are undertaking activities required to advance ridinilazole into Phase 3 clinical trials and, as detailed below, are evaluating our options to maximize the commercial potential of ridinilazole.

Maintain and expand our leadership in the field of utrophin modulation and in the research and development of new mechanism antibiotics.

We are developing ezutromid as the first of a new class of drugs called utrophin modulators. Utrophin modulation is an approach to treating DMD that is independent of the underlying dystrophin gene mutation. Our co-founder and scientific advisor, Professor Kay Davies at the University of Oxford, discovered utrophin and then developed the concept of utilizing utrophin modulation as a treatment potentially applicable to all DMD patients. Our DMD program was founded to develop and commercialize drugs for DMD using this approach to treatment. We are applying, and seeking to enhance, our existing knowledge, experience and proprietary rights to maintain and expand our leadership in the field of utrophin modulation. In addition to the PhaseOut DMD clinical trial for ezutromid, we are also currently pursuing, in collaboration with the University of Oxford, a broad utrophin modulator technology program consisting of novel, future generation, small molecule utrophin modulators with potential new utrophin-related mechanisms. We are also developing ridinilazole as a novel mechanism antibiotic that is designed to selectively target *Clostridium difficile* bacteria without causing collateral damage to the gut flora and thereby reduce rates of CDI recurrence. We are seeking to apply our existing knowledge and experience to position ourselves as a leader in antibiotic research and development and generate a pipeline of new mechanism antibiotics that show clear advantages over current standard of care treatment. Our focus is on treating pathogens that have been recognized as posing urgent or serious healthcare threat. The discovery of new antibiotics is being supported by our genetics-based platform that was obtained as part of our acquisition of Discuva Limited.

Collaborate with Sarepta on the global research, development and commercialization of our utrophin modulator pipeline.

We entered into an exclusive license and collaboration agreement with Sarepta in October 2016 pursuant to which we granted Sarepta the exclusive right to commercialize products in our utrophin modulator pipeline in the European Union, Iceland, Norway, Switzerland, Turkey and the Commonwealth of Independent States, which we refer to as the licensed territory. Such products include ezutromid and our future generation of small molecule utrophin modulators, which we refer to collectively as the licensed products. We have agreed to collaborate with Sarepta on the research and development of the licensed products under a joint, global development plan through a joint steering committee. Sarepta has the final decision making authority with respect to commercialization decisions of the licensed products in the licensed territories. We are working with Sarepta to implement the global development plan and fulfill our respective contractual obligations under the terms of the license and collaboration agreement that includes research and development activities, sharing of global research and development costs from January 1, 2018, manufacture and supply of licensed product material, intellectual property, and commercialization activities.

Commercialize ezutromid for DMD in the United States with our own specialty commercial team.

We hold exclusive commercialization rights for ezutromid for all indications in the United States. If ezutromid receives marketing approval, we intend to commercialize it initially in the United States with our own focused, specialized sales force that we plan to establish. We believe that medical specialists treating DMD are sufficiently concentrated that we will be able to effectively promote ezutromid with a targeted sales team in the United States and potentially other territories. We also believe that our relationships with patient advocacy groups will strengthen our ability to market ezutromid. We also plan to evaluate the potential for utilizing collaboration, distribution and other marketing arrangements with third parties to commercialize ezutromid in the jurisdictions where we retain commercial rights.

Maximize the commercial potential of ridinilazole.

We hold exclusive commercialization rights for ridinilazole for all indications in the United States and Europe. We entered into an exclusive license and commercialization agreement with Eurofarma in December 2017 pursuant to which we granted Eurofarma the exclusive right to commercialize ridinilazole in certain countries in South America, Central America and the Caribbean. We have also been awarded a contract from BARDA worth up to $62 million that will, in part, fund our planned Phase clinical trials of ridinilazole. We continue to evaluate our options to maximize the commercial opportunity for ridinilazole. We may seek additional third-party collaborators for the development and commercialization of ridinilazole in certain territories or potentially retain commercialization rights for ourselves. We are also exploring funding options from government entities and philanthropic, non-government and not for profit organizations. In this evaluation, we are considering factors such as the anticipated development costs required to achieve marketing approval, the sales and marketing resources required in each territory in which we receive approval, the relative size of the market opportunity in such territory, the particular expertise of the third party and the proposed financial terms of any arrangement with third party collaborators, government entities or philanthropic, non-government or not for profit organizations.

Seek additional governmental and other third party grants and support.

We have obtained development funding and other assistance from government entities, philanthropic, non-government and not for profit organizations and patient advocacy groups for our product candidates. For example, we have received grant funding and clinical trial support from Innovate UK and several DMD organizations, including groups based in the United States, such as the Muscular Dystrophy Association, Parent Project Muscular Dystrophy, Charley's Fund, Cure Duchenne, Foundation to Eradicate Duchenne and the Nash Avery Foundation, and groups based in the United Kingdom, such as Joining Jack. The Wellcome Trust Limited provided funding for ridinilazole up until the completion of our Phase 2 proof of concept clinical trial and BARDA is providing funding that, in part, will support our planned Phase 3 clinical trials of ridinilazole. We plan to continue to encourage these types of organizations to provide additional funding and support for our development programs.

Duchenne Muscular Dystrophy Overview

Duchenne muscular dystrophy is one of the most common and the most severe form of muscular dystrophy. DMD is a fatal disease that results in progressive wasting of muscles throughout the body. DMD is caused by different genetic mutations affecting the dystrophin gene on the X-chromosome, and therefore predominately affects males. As a result of these genetic mutations, DMD patients are unable to produce dystrophin, a protein essential for maintaining healthy muscle function. Over time, the muscles of DMD patients deteriorate and are infiltrated by fat and scar tissue, which is referred to as fibrosis, leading to the loss of ambulation, loss of respiratory and cardiac function and ultimately death.

Based on prevalence data published in January 2018 by Orphanet, a publicly available reference portal for information on rare diseases and orphan drugs, we estimate that there are approximately 50,000 DMD patients in the developed world and 250,000 DMD patients globally. According to an article published in 2013 in the peer reviewed journal *Muscle & Nerve*, approximately one in every 5,000 males is born with DMD. All ethnic groups are generally susceptible to DMD at approximately the same rates. Approximately two-thirds of DMD cases are due to inherited mutations, with the remainder being the result of spontaneous mutations in the dystrophin gene in patients with no familial history of the disease.

DMD is typically diagnosed in patients who are between two and seven years of age. The onset of the physical symptoms can be difficult to recognize, but early indicators of disease due to muscle weakness include difficulty walking or jumping, frequent falling over and becoming fatigued more easily. A preliminary diagnosis is typically made by measuring blood plasma levels of the enzyme creatine kinase, or CK. CK levels in DMD children are often ten to 100 times higher than CK levels in non-DMD children. A diagnosis of DMD is then confirmed through genetic testing using blood cells or muscle biopsy. In the United States and Europe, there are a number of newborn screening studies that can diagnose DMD at birth, although these tests are not yet routinely performed.

Initially, DMD affects the skeletal muscles in the arms, legs and trunk. By around 12 years of age, most DMD patients will need to use a wheelchair on a regular basis. Significant loss of skeletal muscle function takes place during the teenage years, and, while greater assistance is needed for activities involving arms, legs or trunk, most patients will retain use of their fingers, allowing them to write or use computers. Symptoms of scoliosis, or curvature of the spine, may also develop due to loss of trunk muscle function.

In the later stages of disease progression, life threatening heart and respiratory conditions become common. The function of the diaphragm and muscles responsible for the mechanical aspects of breathing deteriorates, leading to shortness of breath and build-up of fluid in the lungs and requiring ventilation at night and eventually on a 24-hour basis. DMD patients also develop cardiomyopathy, or enlarged hearts. The failure of the cardiac and respiratory systems typically leads to death by the time DMD patients reach their late twenties.

Current DMD Treatments and Development Approaches

There is currently no approved therapy for the treatment of DMD applicable to all DMD patients that seeks to alter the progression of the disease. Corticosteroids are prescribed to DMD patients from a young age to help treat symptoms of the disease. However, long-term use of corticosteroids is associated with severe side effects and concerns over weight gain. Other treatments to manage the symptoms of the disease include regular physiotherapy, surgery and mechanical support, such as wheelchairs and leg braces, and dietary supplements.

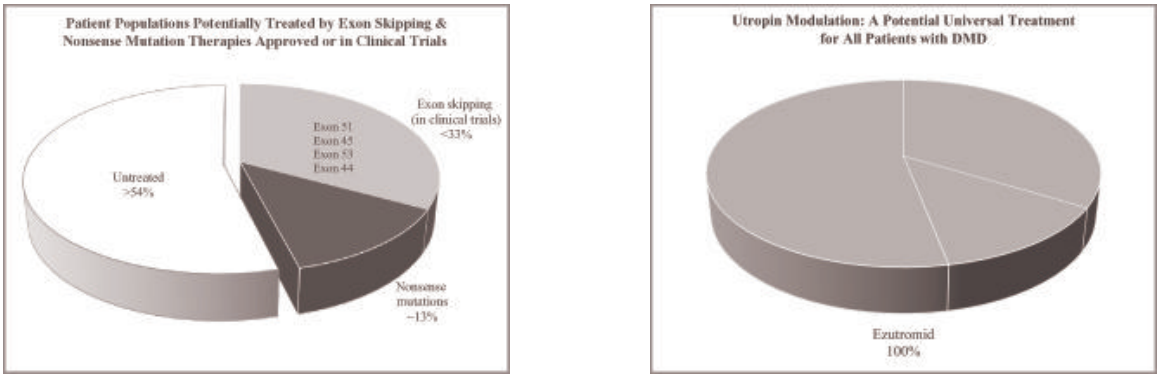
There are different approaches in development for the treatment of DMD, some of which seek to alter, slow or stop the progression of the disease by targeting the underlying genetic cause and others that seek to provide symptomatic relief. One disease modifying treatment for DMD is based on a scientific approach known as exon-skipping. Exons are organic molecules known as nucleotides within the DNA strand that the cellular machinery translates to make truncated but functional protein. In a sub-population of DMD patients, synthesis of the dystrophin protein is disrupted because of mutations that may be due, among other factors, to deleted exons. Exon-skipping technology seeks to allow the production of a truncated but still functional dystrophin protein. According to an article published in 2009 in the peer reviewed journal *Human Mutation*, skipping of the ten most common exons would treat in aggregate approximately 41% of all DMD patients. There is currently one approved exon-skipping treatment in the United States, called eteplirsen (Exondys 51™), which is being developed and commercialized by Sarepta. Eteplirsen received accelerated approval from the FDA in September 2016, and based on the size of the DMD population described in the aforementioned article in *Human Mutation*, it has the potential to treat approximately 13% of patients with DMD. We believe that there are additional exon-skipping therapies currently in clinical development to address additional exons and that these, in aggregate with eteplirsen, would treat less than one-third of all DMD patients. Another approach that seeks to alter the progression of the disease involves targeting the specific genetic mutations known as nonsense mutations. Nonsense mutations create a premature stop signal in the translation of the genetic code and prevent the production of functional dystrophin protein. There is currently one approved nonsense mutation treatment in Europe, called ataluren (Translarna™), which is being developed and commercialized by PTC Therapeutics Inc. Ataluren received conditional approval from the EMA in May 2014. DMD caused by nonsense mutations affects approximately 13% of all DMD patients. One other potential disease modifying treatment approach in development is gene therapy, which has the potential to address the genetic cause of DMD by using an adeno-associated virus to deliver a shortened, yet functional, version of the dystrophin or utrophin gene to a DMD patient. A number of other treatments being developed seek to alleviate the symptoms of DMD. These include promotion of muscle tissue growth based on myostatin inhibition, anti-inflammatory and anti-fibrotic drugs and treatments to improve cardiac and respiratory function.

The FDA recognizes the unmet medical need in DMD, the devastating nature of the disease for patients and their families and the urgency to make new treatments available. The FDA publicly stated in October 2014 that it remains committed to working with all companies to expedite the development and approval of safe and effective drugs to treat this disease. The Director of the FDA's Center for Drug Evaluation and Research also stated in a speech in July 2014 that the agency was willing to explore the use of all potential pathways for approval of DMD drugs, including accelerated approval, as appropriate. In February 2018, the FDA issued guidance on developing drugs for the treatment of DMD and related dystrophinopathies that included information around the design of patient clinical trials, clinical trial endpoints and considerations pertaining to an accelerated approval pathway.

Our Utrophin Modulation Approach for the Treatment of DMD

Our Approach

We believe that our approach of utilizing utrophin modulation for DMD has the potential to slow or stop the progression of DMD in all patients with the disease. Utrophin is a naturally occurring protein that is functionally and structurally similar to dystrophin. The aim of utrophin modulation is to maintain the production of full-length utrophin in all skeletal muscles, including the diaphragm, and the heart to compensate for the lack of dystrophin in DMD patients, thereby restoring and maintaining healthy muscle function. This approach to treating DMD is independent of the underlying dystrophin gene mutation. As illustrated in the figure below, we believe utrophin modulation has the potential to treat the entire population of DMD patients, unlike other DMD approaches that also seek to alter, slow or stop the progression of the disease but only address subsets of the total DMD population.



Further, we believe utrophin modulation could potentially be complementary to potential treatments for DMD based on other scientific approaches, including approaches that are focused on restoring dystrophin, such as exon-skipping and suppression of nonsense mutations. We also expect that utrophin modulation has the potential to benefit patients with Becker muscular dystrophy, a milder form of the disease in which the majority of patients produce low levels of shortened dystrophin.

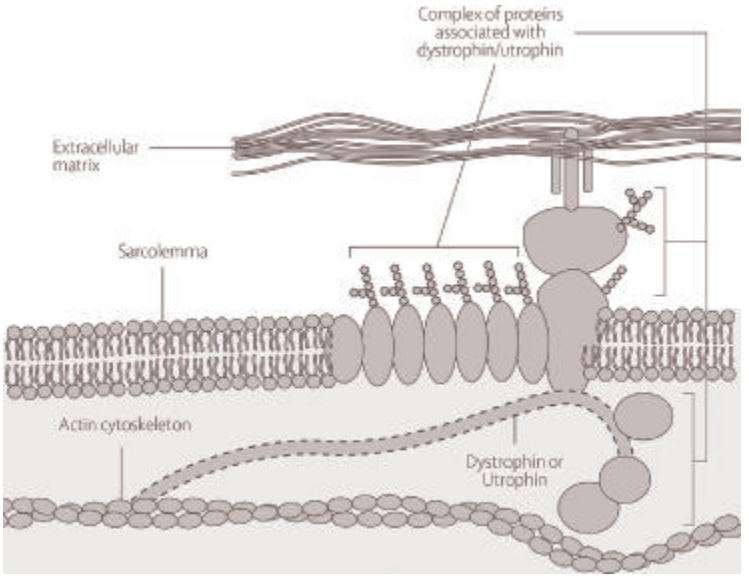
The Role of Utrophin and Dystrophin in Muscle Fibers

Utrophin and dystrophin are structurally and functionally similar proteins that perform a critical role in maintaining the proper function of muscle fibers, although at different times and in different settings. The roles of utrophin and dystrophin depend on whether the muscle fibers are mature, in the development stage or in the process of being repaired and regenerated. As discussed below, dystrophin plays an active role in maintaining the function of mature muscle fibers, while utrophin plays an active role in the development of new muscle fibers and in repairing damaged muscle fibers.

Role of Dystrophin in Mature Muscle

Each muscle in the body is made up of bundles of thousands of muscle fibers. Dystrophin and a group of different proteins that bind to dystrophin, which are called the Dystrophin Associated Protein Complex, or DAPC, are located at specific sites along the entire length of the muscle cell membrane, referred to as the sarcolemma, of every muscle fiber. Dystrophin works by linking the actin cytoskeleton, which is a part of the muscle fiber's contractile apparatus, to the DAPC in the sarcolemma. The DAPC, in turn, links the sarcolemma to the extracellular matrix, which binds the bundles of muscle fibers together. This link serves as a molecular shock absorber that helps to maintain stability and elasticity of muscle fibers during contraction and relaxation. In the absence of dystrophin, this linkage is lost and muscles become damaged, which leads to continual destructive rounds of muscle degeneration and regeneration and ultimately to progressive muscle wasting. The figure below depicts the DAPC and illustrates the role of dystrophin (or utrophin) and the other proteins that make up this complex.

The Role of Dystrophin or Utrophin in the Associated Protein Complex



Role of Utrophin in Developing Muscle

In both DMD patients and healthy individuals, utrophin and the proteins that comprise the DAPC are highly localized at specific sites along the length of muscle fibers during fetal development. Utrophin production is then down regulated, or switched off, in the late stages of gestation. In the normal muscle fiber of healthy individuals, the production of dystrophin begins to replace utrophin at these sites in the maturing muscle fiber, eventually fully replacing utrophin. In the muscle fiber of DMD patients, who are unable to produce functional dystrophin to substitute for the down regulating utrophin, these sites in the muscle fiber become unoccupied, which leads to muscle degeneration as muscles mature.

Role of Utrophin in Regenerating Muscle

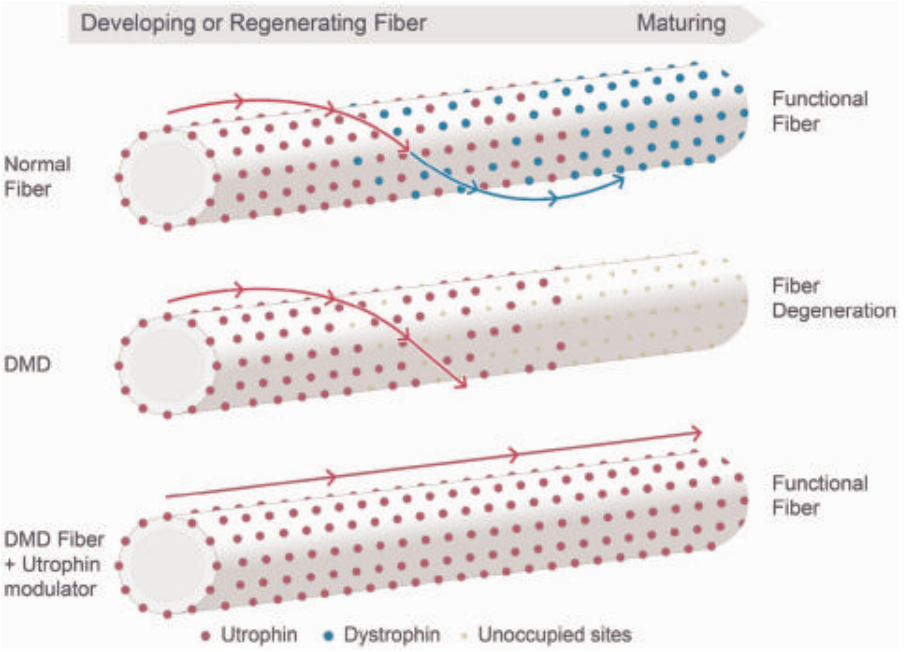
In both DMD patients and healthy individuals, utrophin is localized to the neuromuscular junctions, which connect nerve fibers and muscles, and myotendinous junctions, which connect tendons and muscles. The other major role of utrophin in muscle fibers is to stabilize newly regenerating muscle fibers as part of the natural repair process. After a muscle fiber is damaged, utrophin production switches on as needed to repair the damaged region and then switches off following successful repair.

Role of Developmental Myosin

In DMD patients and healthy individuals, developing skeletal muscle express different forms of myosin, a protein that plays a role in the contraction of muscle fibers. Developmental myosins are transiently expressed during embryonic and fetal development and disappear shortly after birth when adult myosins are expressed to perform the same role. Developmental myosins are also re-expressed during muscle fiber repair and so provide a specific marker of muscle fiber regeneration. Patients with DMD have higher levels of developmental myosin due to their muscle fibers going through a continuous cycle of damage and repair caused by the absence of functional dystrophin protein, which means developmental myosin can be used as a biomarker of muscle fiber repair. For example, in validation studies patients with DMD exhibited higher levels of developmental myosin compared to patients with Becker muscular dystrophy, or BMD, a milder form of muscular dystrophy disease, with the lowest levels of developmental myosin seen in non-DMD and non-BMD muscle.

Expected Effect of Utrophin Modulation for DMD

We believe that our approach of utrophin modulation can be used to maintain the production of utrophin in maturing and mature muscle fibers and compensate for the lack of dystrophin in DMD patients, thereby restoring and maintaining healthy muscle function. If production of utrophin can be maintained and compensate for the lack of dystrophin then we believe that this would lead to a reduction in the cycle of muscle damage and repair as measured by the biomarker developmental myosin. The figure below illustrates the transition from utrophin to dystrophin production in the normal muscle fiber of a healthy individual, the effect of the lack of dystrophin production in the muscle fiber of a DMD patient and the expected effect of utrophin modulation in the muscle fiber of a DMD patient to compensate for the lack of dystrophin production.



Origins of Our Utrophin Modulation Approach

Our co-founder and scientific advisor, Professor Kay Davies at the University of Oxford, discovered utrophin and then developed the concept of utilizing utrophin as a treatment potentially applicable to all DMD patients. Our DMD program was founded to develop and commercialize drugs for DMD using this approach to treatment. Professor Davies' research group at the University of Oxford developed transgenic lines of an *mdx* mouse that were genetically engineered to continually express utrophin protein. The *mdx* mouse is a naturally occurring animal model that is dystrophin deficient and is the standard disease model for studies of DMD. In these experiments, the continued expression of utrophin, even at levels just above those in a normal *mdx* mouse, had a meaningful, positive effect on muscle performance.

Our utrophin modulation program uses small molecule drugs that are designed to achieve the same effect seen in the transgenic *mdx* mouse experiments and to continually express utrophin to protect muscle fibers against DMD.

Ezutromid Overview

Our most advanced utrophin modulator product candidate is ezutromid, an orally administered small molecule.

To date, we have conducted four Phase 1 clinical trials of ezutromid. We completed a Phase 1 clinical trial of ezutromid in healthy volunteers in 2012, a Phase 1b clinical trial of ezutromid in DMD patients in May 2014 and another Phase 1b clinical trial of ezutromid in DMD patients in September 2015. In addition, we completed a Phase 1 clinical trial evaluating a new formulation of ezutromid, which we refer to as the "F6" formulation, in healthy volunteers and DMD patients in August 2016. The second Phase 1b clinical trial of ezutromid in DMD patients evaluated another clinical formulation of ezutromid, which we refer to as the "F3" formulation, and the impact of diet on plasma levels of the drug. We refer to this second Phase 1b trial as our Phase 1b modified diet trial. Our Phase 1b modified diet trial met its primary objective with patients achieving plasma levels of ezutromid that may be sufficient to modulate the production of utrophin protein and possibly result in clinical benefit while following specific dietary guidance. In our Phase 1 clinical trial evaluating the F6 formulation of ezutromid, the evaluable patients who received the highest dose achieved an over six-fold increase in the average maximum plasma concentration level compared to the F3 formulation of ezutromid.

In all four Phase 1 clinical trials, ezutromid was generally well tolerated at all doses tested. One patient in the Phase 1 clinical trial of the F6 formulation of ezutromid exhibited changes in liver parameters and withdrew from the trial, despite showing no clinical symptoms. The findings were classified as a serious adverse event. No other serious adverse events reported in our Phase 1 clinical trials of ezutromid.

We are conducting a Phase 2 clinical trial of ezutromid, which we refer to as PhaseOut DMD, in patients with DMD at trial sites in the United Kingdom and the United States. The PhaseOut DMD trial is evaluating the benefits of longer-term dosing of the F3 and F6 formulations of ezutromid by measuring a number of endpoints related to muscle health and muscle function, including distribution of utrophin protein in muscle fibers and levels of muscle fiber regeneration from muscle biopsies, changes in muscle inflammation and fat infiltration through the use of magnetic resonance, distance walked during a six minute walk test and the North Star Ambulatory Assessment. We completed enrollment for PhaseOut DMD in May 2017, with a total of 40 ambulatory boys between their fifth and tenth birthday enrolled. We reported 24-week interim data for PhaseOut DMD in January 2018 and February 2018 and expect to report top-line data from the full 48-week trial in the third quarter of 2018. At the end of 48-weeks of dosing, patients in PhaseOut DMD have the option to enroll in an extension phase and continue to be dosed with ezutromid. We expect that the extension phase will last until ezutromid either receives marketing approval in the relevant country or its development is discontinued.

We believe that the F3 and F6 formulations of ezutromid will be appropriate for administration to DMD patients, especially children.

The FDA has granted orphan drug designation to ezutromid for the treatment of DMD, and the EMA has designated ezutromid as an orphan medicinal product. In the United States, if a product with orphan designation receives FDA approval, the FDA will not approve a later product for the same indication that uses the same active ingredient for seven years, unless the later product is shown to be clinically superior. In the European Union, if an orphan medicinal product receives EMA approval, the EMA will not approve a later product for the same therapeutic indication and with the same method of action for ten years after the orphan medicinal product receives EMA approval, subject to certain exceptions, including if the later product demonstrates clinical superiority. The FDA has also granted ezutromid fast track designation and rare pediatric disease designation. Fast track designation provides companies with advantages such as opportunities for more frequent interactions with the FDA during all aspects of development, submission of a new drug application, or NDA, on a rolling basis, and eligibility for accelerated approval and priority review. With rare pediatric disease designation we could qualify for a priority review voucher upon the approval of ezutromid, which could be used for a subsequent marketing application or sold or transferred an unlimited number of times (although only used once).

Collaboration with Sarepta

In October 2016, we entered into an exclusive license and collaboration agreement with Sarepta. Under the terms of the agreement, we granted Sarepta the exclusive right to commercialize products in our utrophin modulator pipeline in the European Union, Switzerland, Norway, Iceland, Turkey and the Commonwealth of Independent States, which we refer to as the licensed territory. Such products include ezutromid and our pipeline of future generation small molecule utrophin modulators, which we refer to as the licensed products. We also granted Sarepta an option to expand the licensed territory to include specified countries in Central and South America. We retained commercialization rights in the rest of the world.

Under the terms of the license and collaboration agreement, we have received an aggregate of $62.0 million in payments from Sarepta, that comprised of an upfront payment of $40.0 million and a milestone payment of $22.0 million that we received following the first dosing of the last patient enrolled in our PhaseOut DMD clinical trial. In addition, we are eligible to receive future ezutromid-related development, regulatory and sales milestone payments totaling up to $500.0 million. We will also be eligible to receive development and sales milestone payments related to potential second generation and future generation utrophin modulator candidate(s). We are also eligible to receive escalating royalties ranging from a low to high teens percentage of net sales on a product-by-product basis in the licensed territories. If Sarepta elects to exercise its option for rights in specified countries in Central and South America, we would be entitled to additional fees, milestones and royalties.

We have agreed to collaborate with Sarepta on the research and development of licensed products under a joint, global development plan. Under the license and collaboration agreement, we were solely responsible for all research and development costs for the licensed products until December 31, 2017. Since January 1, 2018, we have been responsible for 55.0% of all global budgeted research and development costs related to the licensed products, and Sarepta has been responsible for 45.0% of such costs. Sarepta has final decision making authority with respect to commercialization decisions of the licensed products in the licensed territories. Sarepta will be solely responsible for all commercialization activities and associated costs, relating to licensed products in the licensed territories.

Ezutromid Clinical Development

To date we have completed four Phase 1 clinical trials of ezutromid, which are summarized in the table below. The design and results of each clinical trial are discussed in more detail further below.

Trial	Description	Duration of Treatment	Total No. of Patients	No. of Patients Treated with Ezutromid
Phase 1 healthy volunteer trial (Trial 01)	Double blind, placebo controlled, ascending single and multiple oral dose trial	10 days	49	36
Phase 1b DMD patient trial (Trial 02)	Open label, ascending single and multiple oral dose trial	10 days	12	12
Phase 1b modified diet trial (Trial 03)	Double blind, randomized, placebo controlled multiple oral dose trial with dietary guidance	14 days	12	12
Phase 1 healthy volunteer and DMD patient trial (Trial 04)	Open label, ascending multiple oral dose trial with dietary guidance evaluating new F6 formulation of ezutromid	5 days (healthy volunteers) and 7 days (DMD patients)	24 (16 healthy volunteers, 8 DMD patients)	24 (16 healthy volunteers, 8 DMD patients)

Phase 1 Clinical Trial in Healthy Volunteers (Trial 01)

In 2012, we completed a double blind, placebo controlled, ascending single and multiple oral dose Phase 1 clinical trial of ezutromid in healthy volunteers. We conducted this clinical trial at a single site in the United Kingdom under approval from the Medicines and Healthcare products Regulatory Agency, or MHRA, and the U.K. Health Research Authority Ethics Review Committee, or the Ethics Review Committee. We enrolled 49 healthy male subjects who were between 18 and 55 years of age. Forty-seven subjects completed the clinical trial. Two subjects withdrew from the clinical trial for reasons unrelated to ezutromid.

The primary objective of the clinical trial was to determine the safety and tolerability of single and multiple oral doses of ezutromid in healthy male subjects. The secondary objectives were to determine the single and multiple oral dose pharmacokinetics of ezutromid based on the concentration of the drug in blood plasma and the effect of fasting on the single oral dose pharmacokinetics of ezutromid.

We conducted the clinical trial in two parts. Part 1 consisted of an ascending single dose study with a fasted effect evaluation. We evaluated a total of 32 subjects, who were divided into four equal cohorts of eight subjects each. Subjects in the four cohorts received one of the following doses of ezutromid: 50 mg/kg, 100 mg/kg, 200 mg/kg or 400 mg/kg. Six subjects in each cohort received ezutromid at the specified dose, and two subjects in each cohort received placebo. Each subject in the cohort receiving ezutromid at a dose of 200 mg/kg received doses under both fasted and fed conditions, while the subjects in the other cohorts received doses under normal, fed conditions, with no special dietary rules. One subject was removed during Part 1 of the clinical trial prior to dosing in a fasted state after testing positive for drug use.

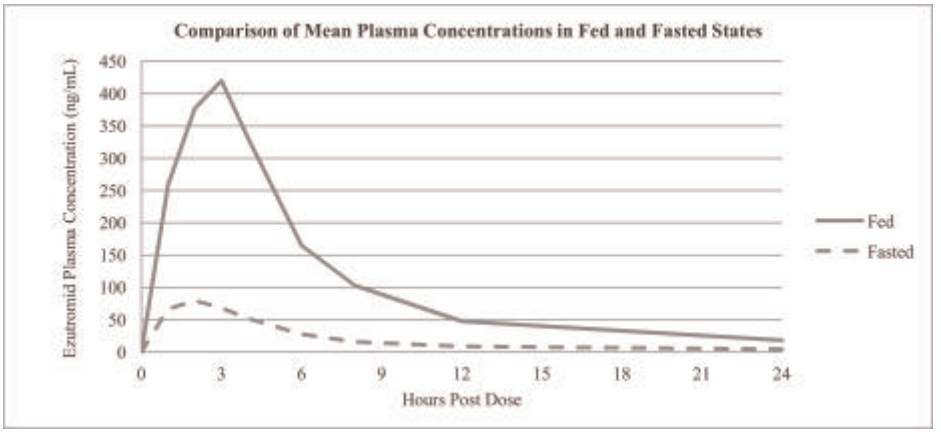
Part 2 of the clinical trial consisted of a multiple ascending dose study. We evaluated a total of 16 subjects, who were divided into two cohorts of eight subjects each. In the first cohort, six subjects received 100 mg/kg doses of ezutromid and two subjects received placebo, in each case administered twice per day for ten days. In the second cohort, six subjects received 200 mg/kg doses of ezutromid and two subjects received placebo, in each case administered twice per day for ten days.

Analysis of Trial Results

We observed the following results from this clinical trial:

- ***Ezutromid was Well Tolerated***. In both Part 1 and Part 2 of the clinical trial, ezutromid was well tolerated at all doses tested. The only observed treatment related adverse event was pale stools, which only occurred at the 200 mg/kg and 400 mg/kg dose levels. The pale stools were attributed to unabsorbed ezutromid passing through the gastrointestinal tract at these higher dose levels. All other adverse events were mild in severity and resolved without treatment.

- ***Higher Plasma Concentrations When Ezutromid Dosed with Food***. The dietary state of subjects in the clinical trial had a meaningful effect on systemic exposure. As illustrated in the figure below, after we administered a single dose of 200 mg/kg of ezutromid to subjects in the 200 mg/kg cohort of Part 1 of the clinical trial, the mean plasma concentration of drug in the blood over time, as determined by quantification of the area under the curve, in the subjects when they were in a fed state (n = 6) was approximately five times higher than the same subjects when they were in a fasted state (n = 5).



- ***Targeted Plasma Levels Achieved in All Subjects after Multiple Dosing***. When we administered 100 mg/kg doses of ezutromid twice a day for ten days, the steady state plasma concentration achieved in all subjects was greater than 0.2 μM (67 ng/mL), which was the concentration that corresponded to a 50% increase in utrophin protein levels in our preclinical studies described in more detail below. The mean blood plasma concentration of ezutromid in the 12 hours following administration of the final dose is illustrated in the figure below. However, there were differences among subjects, with the amount of time that each subject had plasma concentrations of utrophin protein greater than 0.2 μM ranging from seven to 12 hours following dosing. Utrophin protein has a half-life of three to four weeks, and we believe that a few hours of exposure to ezutromid following regular dosing may lead to an accumulation of utrophin protein in muscle tissue over time. Subjects receiving 200 mg/kg doses of ezutromid twice a day for ten days did not achieve higher plasma concentrations of ezutromid than subjects receiving 100 mg/kg doses of ezutromid on this dosing schedule. As a result, we expect that the maximum dose of ezutromid in our future clinical trials will be 100 mg/kg.

- ***Stable Plasma Levels of Ezutromid When Administered Through Multiple Dosing***. When we administered 100 mg/kg doses of ezutromid twice a day for ten days with meals, all subjects achieved stable, or steady state, blood plasma concentrations of drug within three to five days after the beginning of dosing. However, we observed differences in plasma concentrations across subjects, which we believe resulted from varying levels of activity of CYP1A, a liver enzyme that metabolizes ezutromid, in different subjects.

Initial Phase 1b Clinical Trial in DMD Patients (Trial 02)

In May 2014, we completed an open label, ascending single and multiple oral dose Phase 1b clinical trial of ezutromid in patients with DMD. We believe this clinical trial was the first time a utrophin modulator drug had been administered to DMD patients. We conducted this clinical trial at four sites in the United Kingdom under approval from the MHRA and the Ethics Review Committee. We enrolled 12 boys with DMD who were between five and 11 years of age.

The primary objective of the clinical trial was to determine the safety and tolerability of single and multiple oral doses of ezutromid. The secondary objectives were to determine the single and multiple oral dose pharmacokinetics of ezutromid and its metabolites in patients with DMD. In addition, an exploratory objective of the clinical trial was to quantify potential systemic activity biomarkers.

We divided the patients into three cohorts of four boys each. Patients in each of the cohorts received different doses of ezutromid for 11 days. The patients in all of the cohorts were treated in a fed state. The clinical trial protocol provided for the administration of ezutromid within ten minutes after consuming a substantial meal. Patients in the first cohort received the following doses of ezutromid:

- a single 50 mg/kg dose on day one;
- 50 mg/kg doses administered twice per day on days two to ten; and
- a single 50 mg/kg dose on day 11.

Patients in the second cohort received the following doses of ezutromid:

- a single 100 mg/kg dose on day one;
- 100 mg/kg doses administered twice per day on days two to ten; and
- a single 100 mg/kg dose on day 11.

Patients in the third cohort received the following doses of ezutromid:

- a single 100 mg/kg dose on day one;
- 100 mg/kg doses administered three times per day on days two to ten; and
- a single 100 mg/kg dose on day 11.

Analysis of Trial Results

We observed the following results from this clinical trial:

- ***Ezutromid was Well Tolerated***. Ezutromid was well tolerated at all doses tested in this clinical trial with no serious adverse events reported. All reported adverse events were mild in severity and gastrointestinal in nature. In the opinion of the trial investigator, there were no clinically meaningful changes in physical examination, vital signs and hematology or biochemistry parameters in any of the patients. We also did not observe any issues with patient compliance.

- ***Patients had Variable Plasma Levels of Ezutromid; Possible Impact from Diet on Absorption of Ezutromid***. We observed variability among patients in all three cohorts in plasma concentrations of ezutromid after administering multiple daily doses for eleven days. As illustrated in the figure below, the mean blood plasma concentrations of two of the 12 DMD patients, who we refer to as high absorbers, exceeded the target level of 0.2 μM (67 ng/mL) for several hours following dosing. We determined this target level prior to conducting this clinical trial based on the composite results of our preclinical studies in tissue culture, or *in vitro* preclinical studies, and our preclinical studies in live animals, or *in vivo* preclinical studies, which indicated that this plasma concentration leads to an increase of approximately 50% in levels of utrophin protein. The mean plasma concentrations of the remaining ten patients, who we refer to as low absorbers, were less than this target level and similar to the levels achieved by fasted healthy volunteers in our completed Phase 1 clinical trial who had received a single 200 mg/kg dose of ezutromid. Nonetheless, we believe that the patients who did not achieve the target plasma level in the clinical trial may still have achieved a plasma level of ezutromid sufficient to modulate the production of utrophin and possibly result in a clinical benefit. This belief is based in part on the work of Professor Davies' research group, in which the continued expression of utrophin protein in transgenic lines of an mdx mouse, even at levels just above those in a normal mdx mouse, had a meaningful, positive effect on muscle performance.

  We believe that the similarity of ezutromid plasma levels between the majority of DMD patients in this Phase 1b clinical trial and fasted healthy volunteers in our completed Phase 1 clinical trial may be due to a complex absorption profile in DMD patients that results from patients following low fat, low calorie diets. DMD patients often follow such diets due to concerns over the consequences of long-term corticosteroid use and potential resulting weight gain. In addition, we believe that other DMD disease-related factors, such as abnormal gastrointestinal physiology, may impact the absorption profile of DMD patients.

- ***Patients Experienced a Reduction in CK and Other Enzyme Markers of Muscle Damage***. We observed a reduction compared to baseline in the enzymes CK, aspartate aminotransferase, or AST, and alanine aminotransferase, or ALT, in over 90% of the patients in the clinical trial during dosing with ezutromid. Other liver associated enzymes, gamma glutamyl transferase, alkaline phosphatase and albumin, showed no meaningful change from baseline over the same dosing period. The levels of CK, ALT and AST are typically low in healthy people. In DMD patients, however, damage to muscle fibers leads to the release of these enzymes from the muscle and accumulation in the blood. The mean reductions in CK, ALT and AST were statistically significant as compared to the baseline pre-dose levels ($p < 0.05$). We determine statistical significance based on a widely used, conventional statistical method that establishes the p-value of clinical results. Typically, a p-value of 0.05 or less represents statistical significance. Following the end of dosing, the levels of these enzymes increased toward pre-

dose levels. In addition, the reduction in CK was consistent with the results of a preclinical *in vivo* study that we conducted in the *mdx* mouse model, described in more detail below, in which we observed a reduction in CK following single daily dosing of ezutromid. We did not observe a correlation between the dose level of ezutromid administered and the degree of change in the levels of these enzymes. Although this was not a placebo controlled study and there may be other factors that influenced the results, we believed at the time that the lower levels of CK, AST and ALT compared to baseline potentially indicated a reduction in muscle damage and may have been evidence of ezutromid activity. We consequently further evaluated this observed reduction in the enzyme markers of muscle damage in our subsequent Phase 1b modified diet trial. The results of the Phase 1b modified diet trial are described below.

Phase 1b Modified Diet Clinical Trial (Trial 03)

In August and September 2015, we reported results from our Phase 1b modified diet trial of ezutromid in patients with DMD. This trial evaluated the formulation of ezutromid, which we refer to as the "F3" formulation, and which was derived from the earlier clinical formulations of ezutromid that were evaluated in Trial 01 and Trial 02. We conducted this clinical trial at four sites in the United Kingdom under approval from the MHRA and the Ethics Review Committee. We enrolled a total of 12 boys with DMD who were between five and thirteen years of age.

The primary objective of this clinical trial was to determine the pharmacokinetics of single and multiple oral doses of ezutromid in patients with DMD who followed specific dietary guidance that recommended balanced proportions of fat (30%), protein (25%) and carbohydrates (45%) and dosing with a glass of whole milk. We sought to achieve this dietary balance by requesting that patients, with support from research dietitians and the patients' legal guardians, consume a diet containing all of the major food groups, vitamins, minerals and dietary fiber, with a daily calorie intake that is appropriate for the age and activity level of each patient. The goal of this dietary guidance was to demonstrate an increase in the level of ezutromid in blood plasma compared to the blood plasma levels we observed among DMD patients in our initial Phase 1b clinical trial. The trial protocol included a number of secondary objectives, including evaluations of the safety and tolerability of single and multiple oral doses of ezutromid; the daily variability in the steady state pharmacokinetics of ezutromid; and the levels of CK as a potential biomarker of ezutromid activity.

We divided the patients into three cohorts of four patients each. The cohorts were randomized into three sequential 14-day treatment periods during which each patient in the clinical trial received ezutromid at a dose level of 1,250 mg, ezutromid at a dose level of 2,500 mg or a placebo. All doses were administered orally with 100 mL of whole milk and with patients having consumed either breakfast or an evening meal depending on the time of day. There was a wash out period, which is a period of time during which patients received no administration of the drug, of at least 14 days between each of the treatment periods. The clinical trial was blinded as to the order in which patients received the lower dose of drug, higher dose of drug or placebo. The patients in each cohort were dosed with either ezutromid or placebo as follows:

- a single dose on day one; and
- twice daily doses on days two to fourteen.

A follow-up safety visit was conducted twelve to fourteen days after administration of the final dose in the final treatment period. Each patient received specific dietary guidance after which there was a dietary run-in period of at least one week prior to the start of the first treatment period.

Analysis of Trial Results

We observed the following results from our Phase 1b modified diet trial:

- ***Modified Diet had a Positive Impact on Plasma Absorption***. In this trial, plasma absorption of ezutromid was increased in patients with DMD who followed specific dietary guidance that provided a balanced diet of fats, carbohydrates and proteins. Ten of the 12 patients achieved plasma exposure levels above 30 ng/mL for a mean of 14.0 hours in a 22-hour period on day 14 of the trial, with six of these patients achieving levels above 67 ng/mL for a mean of 8.2 hours in the same 22-hour period on day 14. Plasma levels of 30 ng/mL and 67 ng/mL correlate to an increase in utrophin levels of approximately 30% and 50%, respectively, based on our *in vitro* studies that were undertaken in myoblast cells from patients with DMD and myotubes from healthy individuals. The remaining two patients achieved maximum plasma exposure levels that exceeded 20 ng/mL. We believe that these two patients also achieved plasma exposure that may be sufficient to modulate the production of utrophin protein and possibly result in clinical benefit. The plasma exposure levels described above for all 12 patients were achieved after each received twice daily doses of 2,500 mg of ezutromid.

  The impact of adhering to the modified diet on the absorption of ezutromid was further evidenced when we compared the results of seven patients who participated in our initial Phase 1b clinical trial in 2014 and our Phase 1b modified diet trial. All of these seven patients had increased plasma levels in the Phase 1b modified diet trial as compared to plasma levels observed in our initial Phase 1b trial. The increase in plasma levels ranged from approximately 100% to nearly 300%.

- ***Higher Plasma Levels of Ezutromid were Observed on Day 14 Compared to Day 1 in the Majority of Patients***. In this trial, seven of the 12 patients had higher plasma levels when measuring plasma levels over time and calculating the area under the curve, or AUC, on day 14 compared to day 1. This accumulation of drug had not been observed in our previous Phase 1 clinical trial conducted in healthy volunteers or our initial Phase 1b clinical trial conducted in patients with DMD. We expect to evaluate the impact of longer-term dosing of ezutromid on plasma exposure in future clinical trials, including in our Phase 2 PhaseOut DMD clinical trial.

- ***Treatment with Ezutromid did not Alter CK Levels, an Enzyme Biomarker of Muscle Damage, Compared to Placebo***. We did not observe a change in the levels of the enzyme CK compared to baseline when patients were treated with 1,250 mg or 2,500 mg of ezutromid twice a day for 14 days compared to placebo. In our initial Phase 1b clinical trial, in which there was no placebo control, we observed a statistically significant reduction in CK levels compared to baseline when dosing patients with ezutromid. We believe that the results from our Phase 1b modified diet trial indicate that the reduction in CK levels we observed previously is likely not related to treatment with ezutromid. We plan to evaluate CK levels, as well as additional biomarkers, over a longer duration of exposure to ezutromid in future clinical trials.

- ***Ezutromid was Well Tolerated.*** Ezutromid was well tolerated at all doses tested in this clinical trial, with no serious adverse events reported. All reported adverse events were mild in severity and resolved prior to completion of the study. The most common adverse event was pale stools and this was reported by patients in the placebo group and each of the ezutromid treatment groups. In the opinion of the trial investigator, there were no clinically meaningful changes in physical examination, vital signs and hematology or biochemistry parameters in any of the patients. We also did not observe any issues with patient compliance.

Phase 1 Clinical Trial of Potential New Formulation of Ezutromid (Trial 04)

In August 2016, we reported top-line results from an open label, Phase 1 clinical trial of two new formulations of ezutromid. We conducted the trial at six sites in the United Kingdom under approval from the MHRA and the Ethics Review Committee.

The primary objective of the Phase 1 clinical trial was to determine the pharmacokinetics of multiple oral doses of the new formulations of ezutromid. The trial protocol included a number of secondary objectives, including evaluation of the safety and tolerability of single and multiple oral doses of the two formulations of ezutromid; to explore the effect of food to a fasting condition on the pharmacokinetics of ezutromid in healthy volunteers; and the daily variability in the steady state pharmacokinetics of ezutromid. The Phase 1 trial was divided into two parts. Part A evaluated two new formulations in healthy volunteers and Part B evaluated one of the two new formulations tested in Part A based upon the plasma concentration profile data and safety results. All doses were administered orally.

Part A

We enrolled a total of 16 healthy male volunteers between 18 to 55 years of age. There were two treatment periods each lasting five days: treatment period one evaluated one new formulation of ezutromid which we refer to as “F5” formulation, and treatment period two evaluated a different new formulation of ezutromid which we refer to as “F6” formulation.

In treatment period one, eight healthy male volunteers were administered the F5 formulation as follows:

- A twice daily dose of 3,000 mg on days one to three in a fed state;
- A twice daily dose of 6,000 mg on day four in a fed state;
- A single dose of 6,000 mg in the morning on day five in a fasted state; and
- A single dose of 6,000 mg in the evening on day five in a fed state.

In treatment period two, eight healthy male volunteers were administered the F6 formulation as follows:

- A twice daily dose of 2,000 mg on days one to three in a fed state;
- A twice daily dose of 4,000 mg on day four in a fed state;
- A single dose of 4,000 mg in the morning on day five in a fasted state; and
- A single dose of 4,000 mg in the evening on day five in a fed state.

The morning and evening doses were separated by approximately ten to twelve hours.

Based on the plasma concentration levels achieved in healthy subjects and the safety data from Part A of the trial, the F6 formulation of ezutromid was selected for further evaluation in patients with DMD in Part B of the trial.

Part B

We enrolled a total of eight patients with DMD aged between 5 and 9 years of age and treated them with the F6 formulation of ezutromid that had been tested in Part A of the clinical trial. Patients received three ascending doses over three treatment periods:

- 250 mg twice a day for seven days;
- 500 mg twice a day for seven days; and
- 1,000 mg twice a day for seven days.

There was a wash out period of a minimum of seven days between treatment periods. Patients followed the same specific dietary guidance as we used in our Phase 1b modified diet clinical trial.

Analysis of trial results

We observed the following results from our Phase 1 clinical trial evaluating the new formulations of ezutromid:

- ***Healthy Volunteers Demonstrated Increased Plasma Levels With the F6 Formulation of Ezutromid.*** In healthy volunteers, the F6 formulation of ezutromid achieved an over ten-fold increase in plasma levels compared to the F3 formulation of ezutromid. This formulation was selected to progress into Part B of the trial and undergo evaluation in patients with DMD.

- ***DMD Patients Demonstrated Increased Plasma Levels of Ezutromid with F6 Formulation.*** At the 1,000 mg twice a day dose of the F6 formulation of ezutromid, the five evaluable patients achieved an average maximum plasma concentration of 390 ng/mL on day 7, the final day of dosing. By comparison, in our Phase 1b modified diet trial, a twice daily dose of 2,500 mg of the F3 formulation of ezutromid achieved an average maximum plasma concentration of 63 ng/mL on day 14, the final day of dosing. We believe both the F6 and F3 formulations of ezutromid will be able to modulate utrophin. However, we anticipate that only one of these formulations will be chosen to move forward in clinical development, based on the safety and efficacy data from PhaseOut DMD.

- ***Ezutromid was Generally Well Tolerated.*** Ezutromid was generally well tolerated at all doses tested in both the healthy volunteers and DMD patients, except for one DMD patient who exhibited changes in liver parameters and withdrew from the trial, despite showing no clinical symptoms. The finding was classified as a serious adverse event.

BioMarin Phase 1 Clinical Trial in Healthy Volunteers

In 2009, we assigned certain technology relating to our DMD program to BioMarin DMD Regulator Limited, or BioMarin. In 2010, BioMarin conducted a Phase 1 clinical trial of a prior formulation of ezutromid in 48 healthy adult volunteers. The clinical trial was conducted at a single site in the United Kingdom. BioMarin reported that ezutromid was well tolerated by the subjects in this clinical trial. Subjects in this trial achieved low systemic exposure of the drug, and there was variability in systemic exposure across subjects. Following this clinical trial of a prior formulation of ezutromid, BioMarin elected not to continue development of our assigned technology, citing pharmaceutical and pharmacokinetic challenges. In public statements, BioMarin indicated that it had concluded that the likelihood of achieving a therapeutic effect in DMD patients was highly unlikely. In 2010, BioMarin transferred the assets, and all commercialization rights, back to us. As described above, in our various Phase 1 clinical trials of ezutromid in healthy volunteers and patients, in which we administered ezutromid as two different formulations in combination with specific dietary guidance, we were able to achieve plasma concentrations that we believe will be sufficient to modulate utrophin production .

Ongoing Phase 2 'PhaseOut DMD' Clinical Trial

We are conducting a Phase 2 clinical trial of ezutromid, which we refer to as PhaseOut DMD, in patients with DMD. PhaseOut DMD is a 48 week open label trial that is being conducted at trial sites in the United Kingdom and the United States. PhaseOut DMD enrolled a total of 40 ambulatory boys between their fifth and tenth birthday inclusive who have a genetically confirmed diagnosis of DMD. The enrolled patients were required to be on stable doses of corticosteroids for a minimum of six months. We began conducting the trial at sites in the United Kingdom after receiving approval from the MHRA in January 2016 and in the United States after our investigational new drug application was cleared by the FDA in April 2016. We commenced enrollment at trial sites in the United Kingdom in June 2016 and at trial sites in the United States in November 2016. We completed enrollment for PhaseOut DMD in May 2017. At the end of 48 weeks of dosing, patients in PhaseOut DMD have the option to enroll in an extension phase and continue to be dosed with ezutromid. As of January 2018, 18 of 19 eligible patients have enrolled into the extension phase. We expect that the extension phase will last until ezutromid either receives marketing approval in the relevant country or its development is discontinued.

In PhaseOut DMD, 30 of the enrolled patients are scheduled to receive the F3 formulation of ezutromid at a dose level of 2,500 mg twice daily via oral administration, and the remaining ten patients are scheduled to receive the F6 formulation of ezutromid at a dose level of 1,000 mg twice daily via oral administration. All patients will receive dietary guidance, consistent with that provided in our Phase 1b modified diet trial, to ensure they are receiving balanced proportions of fat, proteins and carbohydrates. At the time of dosing, patients will consume whole milk and will have also recently eaten either breakfast or an evening meal, depending on the time of day. The trial protocol specifies that there should be a gap of between eight to twelve hours between the breakfast and evening meal doses.

We have designed the PhaseOut DMD trial to evaluate the activity and safety of ezutromid and utrophin modulation and it will consist of the following four parts:

- ***Screening and Baseline Stage***: A screening and baseline phase lasts up to 28 days for each patient. During this time, we take a number of baseline measurements. These include magnetic resonance spectroscopy / magnetic resonance imaging, or MR, analysis of upper leg muscle, a baseline muscle biopsy from the bicep, blood samples for pharmacokinetic and enzyme biomarker measurements, and baseline measurements for functional tests, including the six minute walk test and the North Star Ambulatory Assessment.

- ***Treatment Stage***: The treatment phase for each patient lasts a total of 48 weeks. During the treatment stage, an MR analysis will be conducted at 12, 24, 36 and 48 weeks of treatment. Blood samples for pharmacokinetic and enzyme biomarker analysis will be taken at 4, 8, 12, 24, 36 and 48 weeks of treatment. In addition, 24 of the patients are scheduled to have a second muscle biopsy taken at week 24, with the remaining 16 patients are scheduled to have their second biopsy at week 48; As of January 2018, one patient from each of these groups has withdrawn from the trial prior to their second biopsy due to reasons unrelated to ezutromid. Functional tests will be performed at 12, 24, 36 and 48 weeks of treatment.

- ***Safety and Tolerability Follow-up Stage***: Each patient in the trial will have a 30-day safety and tolerability follow up. For trial patients who do not enroll in the extension phase, the safety and tolerability follow-up will occur after the 48 week treatment phase. Patients enrolling in the extension phase are expected to have a 30-day safety and tolerability follow-up following completion of the extension phase.

- ***Trial Extension Phase***: At the end of the 48 weeks of dosing, all patients have the option of enrolling into an extension phase and continue to receive ezutromid. We expect that the extension phase will last until ezutromid either receives marketing approval in the relevant country or its development is discontinued. This extension phase will allow us to monitor safety and efficacy data related to longer-term dosing of the F3 and F6 formulations of ezutromid. The decision to include the extension phase followed a review of the safety and tolerability data from PhaseOut DMD by an independent data monitoring committee. A protocol amendment was submitted to the MHRA, U.K. Ethics Committee and the FDA in March 2017 and was subsequently approved, which enables enrollment of patients into the extension phase once they have completed 48 weeks of dosing without a cessation in dosing.

- ***Additional Cohort:*** The amended protocol we submitted to the regulatory authorities and ethics committee to extend the trial also provides for the enrollment into PhaseOut DMD of patients who participated in prior clinical trials of ezutromid but who did not meet the inclusion criteria for PhaseOut DMD. All safety, tolerability and functional data from this arm of the trial will be distinct from analyses of the efficacy portion of PhaseOut DMD.

Clinical Trial Objectives

The primary objective of our PhaseOut DMD clinical trial is to investigate changes in magnetic resonance parameters from baseline in leg muscle health . Reports in the peer reviewed literature have shown MR has potential as a non-invasive biomarker to measure disease progression through measurement of changes in inflammation and fat infiltration in leg muscles. This trial will monitor disease progression after treatment with ezutromid by measuring changes from baseline in levels of muscle inflammation and fat infiltration in leg muscle during the course of the 48 week trial. We will also investigate if there are any relationships between changes in magnetic resonance parameters in leg muscle with blood plasma concentrations of ezutromid, which we will measure at baseline and over the course of the trial.

We also will investigate in our PhaseOut DMD clinical trial changes in utrophin expression in muscle and muscle fiber regeneration. The muscle biopsies taken during the trial will be used to investigate changes from baseline in utrophin protein expression and changes in muscle regeneration biomarkers.

The clinical trial is also expected to investigate a number of functional measures. These will include changes from baseline in distance walked during the six minute walk test, changes from baseline in the North Star Ambulatory Assessment, changes from baseline in a 10 meter run test, and changes from baseline in performance of upper limbs. We will also monitor changes in a variety of blood biomarkers related to muscle health, including the enzyme CK, during the trial.

We believe that these objectives collectively will enable us to better understand the potential benefits of long-term dosing with the F3 and F6 formulations of ezutromid on the progression of DMD in a pediatric population. We will also seek to understand if there are any potential relationships between changes in magnetic resonance parameters, utrophin expression, muscle fiber regeneration and other assessments of muscle function. This trial will be the longest period of time that ezutromid has been dosed in patients and will increase the amount of safety and tolerability data for ezutromid.

We reported interim 24-week data from PhaseOut DMD in January 2018, with further findings from this clinical trial reported in February 2018. The interim data included muscle biopsy data from the group of patients who were scheduled to have their second muscle biopsy after completing 24 weeks of treatment with either the F3 formulation or F6 formulation of ezutromid, and 24-week magnetic resonance and functional data analysis from all patients in the trial who completed 24 weeks of treatment.

Analysis of PhaseOut DMD interim clinical trial results

We observed the following results from the interim 24 week data from PhaseOut DMD.

- ***Mean Increase in Utrophin Protein Intensity.*** We observed an increase in mean utrophin protein intensity levels of 7% in biopsies at 24 weeks compared to baseline (0.370 to 0.396, 95% C.I., -0.005, 0.058). Background levels of utrophin are high in patients with DMD as their muscle fibers undergo a continuous cycle of damage and repair. Utrophin protein is produced during the initial stage of muscle repair, but its production is naturally switched off as muscle fibers mature.

- ***Reduction in Muscle Damage as Measured by Developmental Myosin.*** We observed a statistically significant and meaningful reduction in muscle damage as measured by a 23% decrease in mean developmental myosin in muscle biopsies at 24 weeks compared to baseline (11.37% to 8.76%, 95% C.I., -4.33, -0.90). Developmental myosin is a biomarker of muscle damage and is present in muscle fibers that are repairing. Studies show that there is a correlation between disease severity and levels of developmental myosin present in muscle fibers with higher levels typically found in DMD patients with lower levels found in patients with the milder disease, BMD.

- ***Reduction in Muscle Inflammation as Measured by Magnetic Resonance Spectroscopy.*** We observed a decrease in muscle inflammation as measured by magnetic resonance spectroscopy transverse relaxation time T2, or MRS-T2. We observed a mean decrease from baseline to 24 weeks in the soleus (calf muscle) in patients (n=38) of -0.861 milliseconds that achieved statistical significance (31.850 milliseconds to 30.989 milliseconds, 95% C.I., -1.440, -0.281). We also observed a mean decrease of -0.470 milliseconds in MRS-T2 in the vastus lateralis (thigh muscle) of patients (n=37) from baseline to 24 weeks (32.265 milliseconds to 31.795 milliseconds, 95% C.I., -1.158, 0.218). We believe the decrease in MRS-T2 is independent of any anti-inflammatory effect provided by corticosteroids due to the patients being on stable regimens of such treatments.

- ***DMD Patients Achieved Plasma Levels of Ezutromid Expected to Modulation Utrophin Protein with F3 and F6 Formulation.*** We observed that all patients achieved plasma levels of ezutromid that we believe will be sufficient to modulate the expression of utrophin protein. The responses in utrophin protein intensity, developmental myosin and MRS-T2 were observed in patients treated with either the F3 or the F6 formulations of ezutromid. We did not observe a relationship between drug exposure levels and responses to these pharmacology measures or the safety measures after 24-weeks of treatment with ezutromid.

We also observed other findings from the interim 24 week PhaseOut DMD data.

- A decrease in the mean muscle fiber diameter from 42.1µm at baseline to 40.3µm at 24 weeks as measured by muscle biopsy.
- The mean fat fraction in the vastus lateralis muscle increased from 14.7% at baseline to 18.5% at 24 weeks (n=37) as measured by magnetic resonance spectroscopy. We believe that the potential for change in this magnetic resonance parameter is expected to be observable after longer-term dosing of patients.
- A change in mean six-minute walk distance from 404m at baseline to 395m at 24 weeks (n=39) and a change in mean North Star Ambulatory Assessment score from 25.0 at baseline to 24.4 at 24 weeks (n=39). The North Star Ambulatory Assessment has a maximum score of 40.
- All patients retained ambulation after 24-weeks of treatment (n=39).

Ezutromid was also well tolerated after 24 weeks of dosing in PhaseOut DMD.

The muscle biopsies were analyzed using fully automated techniques that can assess whole cross-sections of biopsies containing several thousand individual fibers. These techniques were developed by Summit in collaboration with Flagship Biosciences Inc., or Flagship. Following strict handling and processing protocols, all biopsies contributed to the overall dataset with 22 matched pairs of baseline/week 24 biopsies assessed in the developmental myosin and fiber diameter assay and 18 matched pairs of baseline/week 24 biopsies assessed in the utrophin assay.

In light of the positive interim 24-week data, we are accelerating preparatory activities for a placebo controlled clinical trial for ezutromid, and for a potential regulatory filing of ezutromid based on the 48-week results from PhaseOut DMD. We expect to report top-line 48-week data during the third quarter of 2018.

Ezutromid Preclinical Studies

We have conducted a broad preclinical program for ezutromid in collaboration with Professor Kay Davies and her research group at the University of Oxford. The preclinical program consists of *in vitro* and *in vivo* studies designed to support the potential of ezutromid to modulate the expression of utrophin protein. The following is a summary of key observations from studies completed to date:

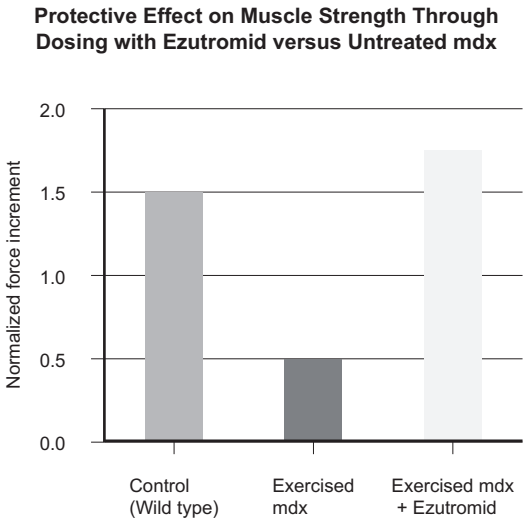
- ***Increased Utrophin Levels in DMD Patient Derived Myoblast Cells***. We dosed *in vitro* muscle derived cells called myoblasts from DMD patients with ezutromid. After three days of dosing, we observed a two-fold mean increase in utrophin protein levels in these myoblast cells as compared to baseline levels.

- ***Increased Utrophin Protein Expression in Heart, Diaphragm and Other Skeletal Muscles in mdx Mouse***. We dosed *mdx* mice with ezutromid daily for 28 days. Following the 28 days of dosing, we observed increased mean utrophin protein levels in the diaphragm ($p<0.05$) and the heart ($p<0.01$) as compared to untreated *mdx* mice. We also observed an increase in utrophin protein levels in the tibialis anterior, or TA, and extensor digitorum longus, or EDL, skeletal muscles. We also observed a mean increase in utrophin messenger ribonucleic acid, or mRNA, which is the precursor to utrophin protein. We believe that the good systemic distribution of drug observed in this experiment is important for DMD therapies that aim to maintain ambulation and prolong life for DMD patients.

- ***Localized Utrophin Production at the Sarcolemma in mdx Mouse***. In the *mdx* mouse experiment described in the prior bullet, we observed an increase in utrophin protein in the TA and EDL skeletal muscles of *mdx* mice treated with ezutromid compared to untreated *mdx* mice as evidenced by an observable increase in the number of utrophin positive muscle fibers in these muscles. The increase in utrophin protein was localized at the sarcolemma, which is the required site of action for utrophin production in muscle. In a separate study in which we forced *mdx* mice to exercise, we observed a similar increase in utrophin positive muscle fibers in the diaphragm and the TA and EDL muscles, and an increase of utrophin levels within these muscle fibers, of *mdx* mice treated with ezutromid compared to untreated *mdx* mice. We believe that these results are noteworthy because DMD disease pathology is even more pronounced in the diaphragm and hind-limb muscles of the forced exercise *mdx* mice as compared to sedentary *mdx* mice.

- ***Reduction in Secondary Markers of DMD in mdx Mouse***. We dosed *mdx* mice with ezutromid daily for 28 days. In this study, we observed a mean 75% reduction in CK levels as compared to untreated *mdx* mice after 15 days, which is the time at which muscle degeneration is at a maximum in this model. We continued to observe lower mean CK levels in the treated *mdx* mice group after 28 days, at which point muscle degeneration stabilized. Plasma levels of CK, muscle regeneration, inflammation and fibrosis are secondary markers of DMD. We also observed a reduction in the mean level of muscle fiber regeneration in *mdx* mice treated with ezutromid compared to untreated *mdx* mice as evidenced by a reduction in the number of muscle fibers with centrally localized nuclei, which are biomarkers of regeneration. We believe this resulted from the continual expression of utrophin, which protected the dystrophin deficient muscle fibers, and therefore reduced the amount of muscle regeneration. In addition, following treatment with ezutromid, we observed a mean reduction in overall skeletal muscle inflammation and fibrosis in the *mdx* mice treated with ezutromid compared to untreated *mdx* mice, which indicates a reduction in muscle fiber damage.

- ***Protection of Muscle Function in Forced Exercise mdx Mouse***. We dosed *mdx* mice with ezutromid daily for 28 days and forced the mice to exercise during this treatment period. As illustrated in the figure below, at the end of dosing the forced exercise *mdx* mice treated with ezutromid demonstrated a statistically significant mean increase in protection against exercise-induced forelimb weakness ($p<0.05$) compared to untreated forced exercise *mdx* mice. We measured forelimb weakness by the force increment required for the *mdx* mice to lose the strength to grip. The *mdx* mice treated with ezutromid exhibited forelimb strength comparable to that observed in the wild type control mice, which unlike *mdx* mice are not dystrophin deficient. The untreated *mdx* mice experienced a mean decrease in forelimb strength by the end of the 28 day study. Forcing the *mdx* mouse to exercise worsens the impact of DMD and we believe more closely approximates the pathology of human DMD patients.



- ***Target Plasma Concentration to Achieve a 50% Increase in Utrophin Levels***. The composite results from our *in vitro* and *in vivo* preclinical studies indicated that a plasma concentration of approximately 0.2 μM (67 ng/mL) leads to an increase of approximately 50% in levels of utrophin protein. These plasma concentration findings formed the basis of the target pharmacokinetic level that we have used in our clinical trials of ezutromid. As noted above, in the experiments performed by Professor Kay Davies, the continued expression of utrophin, even at levels just above those in a normal *mdx* mouse, had a meaningful, positive effect on muscle performance.

Our Pipeline of Future Generation Utrophin Modulators

We plan to apply and enhance our existing knowledge, experience and proprietary rights to maintain and expand our leadership in the field of utrophin modulation. Our co-founder and scientific advisor, Professor Kay Davies at the University of Oxford, discovered utrophin and then developed the concept of utilizing utrophin modulation as a treatment potentially applicable to all DMD patients. Our DMD program was founded to develop and commercialize drugs to treat DMD using this approach. Our intellectual property estate for ezutromid for the treatment of DMD includes composition of matter patents granted in major territories, including the United States and Europe. We plan to apply and enhance our existing knowledge, experience and proprietary rights to maintain and expand our leadership in the field of utrophin modulation. In addition to the F3 and F6 formulations of ezutromid, we are currently pursuing novel, future generation utrophin modulators, some of which may have potential new utrophin-related mechanisms, that we are developing in collaboration with the University of Oxford.

We were previously pursuing internally developed second generation utrophin modulators that are structurally related to ezutromid, but designed to include improved pharmacokinetic properties and achieve higher plasma levels of drug at lower doses. However, in September 2016, we announced that the development of our second generation utrophin modulators would be placed on hold due to the substantial increase in ezutromid plasma levels achieved with the F6 formulation of ezutromid in our most recently completed Phase 1 clinical trial. We are now focusing on advancing the F3 and F6 formulations of ezutromid and our preclinical future generation utrophin modulators.

Strategic Alliance with the University of Oxford

In November 2013, as part of our program for the development of additional utrophin modulators, we formed a strategic alliance with the University of Oxford. Under this alliance, we acquired an exclusive option to license intellectual property that is generated as part of our research in utrophin modulation as part of the alliance. We announced in November 2015 a multi-year extension of the strategic alliance with the University of Oxford that will run until November 2019, with an option to extend it for a further 12 months. The goal of our collaboration with the University of Oxford is to identify and develop future generations of novel utrophin modulators that will include new mechanisms that could complement ezutromid and our second generation modulators. In December 2015, we reported achievement of the first research milestone as part of the collaboration with the nomination of two series of utrophin modulators for progression into lead optimization studies. These two series of compounds are structurally distinct from ezutromid, with one series having a potential new utrophin modulation mechanism that appears to be distinct from ezutromid.

Biomarker Program

We believe that the development of new biomarkers could play an important role in furthering our understanding of the potential benefits of utrophin modulators in treating DMD. A biomarker is a measurable biological or chemical change that is believed to be associated with the severity or presence of a disease or other physiological state of an organism. We expect our biomarkers will be related to the mechanism of utrophin modulation and will examine other aspects of muscle health, including inflammation and muscle fiber regeneration. Our biomarker program includes the following:

- quantifying numbers of utrophin positive fibers and distribution of utrophin protein in each fiber from muscle biopsies using immunohistochemistry;
- evaluating muscle biopsies to quantify numbers of regenerating fibers; and
- developing other serum biomarkers that will quantify muscle damage.

We are collaborating with the specialist biomarker development company Flagship on the development of automated, digital analysis tools to allow for the precise and reproducible measurement of utrophin expression and levels of muscle fiber regeneration, including the measurement of developmental myosin. We presented analytical validation data at the 22nd International Congress of the World Muscle Society in October 2017. We believe that the development of these tools will have an important role in helping to further our understanding of the potential benefits of utrophin modulator therapies, including ezutromid, and we are using these tools in analyzing the muscle biopsies in our PhaseOut DMD clinical trial. Our collaboration with Flagship builds on a manual quantification approach that we developed with research groups at the Institute of Child Health at University College London. Data from our collaboration was published in the peer reviewed literature in March 2016.

***Clostridium difficile* Infection Overview**

Clostridium difficile infection is a bacterial infection of the colon that produces toxins causing inflammation of the colon and severe diarrhea. CDI can also result in more serious disease complications, including pseudomembranous colitis, bowel perforation, toxic megacolon and sepsis. CDI represents a serious healthcare issue in hospitals, long-term care homes and, increasingly, in the wider community. We estimate there are over one million cases of CDI each year in the United States and Europe, based on an epidemiology report on CDI that was published in 2015 by Decision Resources, a healthcare research and consulting company. In addition, CDI is responsible for approximately 29,000 deaths per year in the United States, according to a study published in the *New England Journal of Medicine* in 2015. A separate study published in 2012 in *Clinical Microbiology and Infection*, a peer reviewed journal published by the European Society of Clinical Microbiology and Infectious Diseases, indicated that CDI may be underdiagnosed in approximately 25% of cases. A study published in *The Journal of Hospital Infection*, a peer reviewed journal published by the Healthcare Infection Society, reported that CDI is two to four times more common than hospital associated infections caused by methicillin-resistant *Staphylococcus aureus*, a bacterium frequently associated with such infections. The Healthcare Cost and Utilization Project, a family of databases developed through a federal-state-industry partnership sponsored by the Agency for Healthcare Research and Quality of the U.S. Department of Health and Human Services, reported an approximate 3.5 fold increase in hospital stays associated with CDI between 2000 and 2008. The economic impact of CDI is significant. A study published in 2012 in *Clinical Infectious Diseases* estimated that acute care costs total $4.8 billion per year in the United States alone.

CDI originates from a bacterium known as *Clostridium difficile*, or *C. difficile*. *C. difficile* sometimes can be a harmless resident of the gastrointestinal tract. The complex community of microorganisms that make up the natural gut flora usually moderates levels of *C. difficile*. The natural gut flora are an essential part of the normal function of the gastrointestinal tract and also have wide implications to human health, such as the proper function of the immune system. CDI typically develops following the use of broad spectrum antibiotic agents that can cause widespread damage to the natural gut flora and allow overgrowth of *C. difficile*. Hypervirulent *C. difficile* strains have also emerged and are frequently associated with more severe disease. In the United States, the hypervirulent strain, ribotype 027, accounts for approximately one-third of all CDI cases.

The primary clinical issue with CDI is disease recurrence. This is in contrast to other bacterial threats for which drug resistance is the principal concern. According to an article published in 2012 in the peer reviewed journal *Clinical Microbiology and Infection*, up to 25% of patients with CDI suffer a second episode of the infection. The risk of further recurrence rises to 65% after a patient suffers a third episode of CDI. In addition, each episode of recurrent disease is associated with greater disease severity and higher mortality rates. Recurrent disease is associated with an increased burden on the healthcare system.

In 2013, the CDC highlighted CDI as one of three pathogens that pose an immediate public health threat and require urgent and aggressive action. In 2012, the Generating Antibiotics Incentives Now Act provisions of the FDA Safety and Innovation Act, or GAIN, became law. The goal of GAIN is to encourage the development of new antibiotics that treat specific pathogens, including *C. difficile*, which cause serious and life threatening infections.

Current CDI Treatments

Existing treatment options for CDI are limited. Currently the mostly commonly used treatments for CDI are vancomycin or off label use of metronidazole, both of which are broad spectrum antibiotics. Although these antibiotics reduce levels of *C. difficile*, both also cause significant collateral damage to the gut flora as a result of their broad spectrum of activity. This collateral damage to the gut flora leaves patients vulnerable to recurrent CDI. A review published in 2012 in the peer reviewed journal *International Journal of Antimicrobial Agents* reported recurrence rates of 24.0% for vancomycin and 27.1% for metronidazole. Metronidazole is frequently used in mild or moderate cases of CDI and has been associated with a number of side effects. A narrower spectrum antibiotic fidaxomicin was approved in the United States and the European Union, but it has not been shown to be superior to vancomycin in the treatment of patients with the hypervirulent strain ribotype 027. In October 2016, the FDA approved bezolotoxumab, a monoclonal antibody for use in conjunction with an antibiotic in patients who have a high risk of disease recurrence. Bezolotoxumab binds to toxin B, one of the toxins produced by the *C. difficile* bacteria, to neutralize its effects. In February 2018, updated guidelines on the treatment of CDI in adults and children were published in *Clinical Infectious Diseases* by the Infectious Diseases Society of America and Society for Healthcare Epidemiology of America. These revised guidelines recommend the use of vancomycin or fidaxomicin in preference to metronidazole in the treatment of an initial episode of CDI. Use of metronidazole is only recommended when it is not possible to access vancomycin or fidaxomicin.

Ridinilazole for the Treatment of CDI

We are developing ridinilazole as an orally administered small molecule antibiotic for the treatment of CDI. Ridinilazole is designed to selectively target *C. difficile* bacteria without causing collateral damage to the gut flora and thereby reduce CDI recurrence rates. The active ingredient in ridinilazole is a bis-benzimidazole tetrahydrate. We believe, based on preclinical studies conducted to date, that ridinilazole is part of a novel structural class of antibiotics that is distinct from the major classes of marketed antibacterials.

In November 2015, we reported top-line results from our double blind, randomized, active controlled Phase 2 clinical trial that evaluated ridinilazole compared to the current standard of care, vancomycin, for the treatment of CDI. The Phase 2 clinical trial exceeded its primary endpoint of non-inferiority, with ridinilazole achieving statistical superiority over vancomycin in sustained clinical response, or SCR. The statistical superiority was driven by a large numerical reduction in recurrent disease compared with vancomycin. We subsequently reported that data from our Phase 2 clinical trial also showed ridinilazole to be highly preserving of the gut microbiome compared to patients who received vancomycin and experienced substantial damage to the gut microbiome which for many patients persisted during the 30-day post-treatment period. In September 2017, we reported top-line data from our exploratory, open label, active controlled Phase 2 clinical trial evaluating ridinilazole compared to fidaxomicin for the treatment of CDI. In the trial, ridinilazole preserved the gut microbiome of CDI patients to a greater extent than fidaxomicin, achieving a key secondary endpoint. Ridinilazole was well tolerated at all doses tested in our completed Phase 1 and Phase 2 clinical trials. Activities to prepare ridinilazole for Phase 3 clinical trials continue, and we plan to commence these trials in the first quarter of 2019.

We have been awarded a contract from BARDA worth up to $62 million that will, in part, fund our planned Phase 3 clinical trials of ridinilazole. We have also received a $2.5 million upfront payment as part of our license and commercialization agreement with Eurofarma and are eligible to receive an additional $3.75 million in development milestones upon the achievement of staged patient enrollment targets in the planned Phase 3 clinical trials of ridinilazole.

The FDA has designated ridinilazole as a qualified infectious disease product, or QIDP. The QIDP incentives are provided through GAIN. The QIDP designation provides for priority review by the FDA, eligibility for “fast track” status and extension of statutory exclusivity periods in the United States for an additional five years upon FDA approval of the product for the treatment of CDI. The FDA granted fast track designation to ridinilazole in July 2015.

Ridinilazole Clinical Development

Phase 1 Clinical Trial in Healthy Volunteers

In 2013, we completed a randomized, partially blind, placebo controlled Phase 1 clinical trial of ridinilazole in healthy volunteers. We conducted this clinical trial at a single site in the United Kingdom under approval from the MHRA and the Ethics Review Committee. We enrolled 56 healthy male subjects in the clinical trial who were between 18 and 55 years of age. The primary objective of the clinical trial was to determine the safety and tolerability of single and multiple ascending oral doses of ridinilazole. The secondary objectives included determining the single and multiple oral dose pharmacokinetics of ridinilazole, assessing the effect of food on systemic exposure of ridinilazole and assessing the effect of multiple oral doses of ridinilazole on gut flora.

We conducted the clinical trial in two parts. Part 1 consisted of an ascending single dose study and a food effect evaluation study. In Part 1, we evaluated a total of 40 subjects, divided into the following six cohorts:

- four fasted subjects, randomized for three subjects to receive a single 2 mg dose of ridinilazole and one subject to receive placebo;
- four fasted subjects, randomized for three subjects to receive a single 20 mg dose of ridinilazole and one subject to receive placebo;
- eight fasted subjects, randomized for six subjects to receive a single 100 mg dose of ridinilazole and two subjects to receive placebo;
- eight fasted subjects, randomized for six subjects to receive a single 400 mg dose of ridinilazole and two subjects to receive placebo;
- eight fasted subjects, randomized for six subjects to receive a single 2,000 mg dose of ridinilazole and two subjects to receive placebo; and
- eight subjects, randomized for six subjects to receive a single 1,000 mg dose of ridinilazole under fasted conditions and a single 1,000 mg dose under fed conditions, and two subjects to receive two single doses of placebo on the same dosing schedule. The doses under fed and fasted conditions were separated by a minimum of six days.

Part 2 of the clinical trial consisted of a multiple dose study. In Part 2, we evaluated a total of 16 subjects, who were divided into the following two cohorts:

- eight subjects randomized for six subjects to receive 200 mg doses of ridinilazole twice per day for nine days with a single final dose on day ten and two subjects to receive placebo on the same dosing schedule; and
- eight subjects randomized for six subjects to receive 500 mg doses of ridinilazole twice per day for nine days with a single final dose on day ten and two subjects to receive placebo on the same dosing schedule.

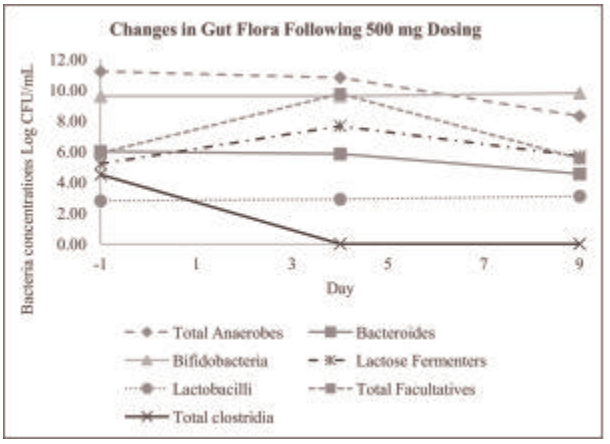
Analysis of Trial Results

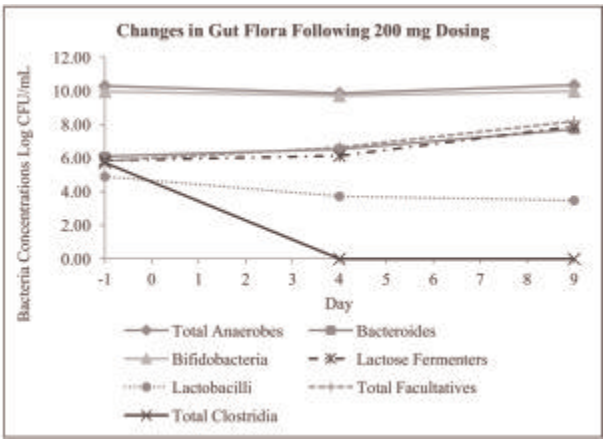
We observed the following results in this clinical trial:

- ***Ridinilazole was Well Tolerated.*** Ridinilazole was well tolerated at all doses tested in the clinical trial. The incidence of adverse events in the clinical trial was low for patients treated with ridinilazole and comparable to the incidence of adverse events for patients receiving placebo. The majority of the adverse events that were considered to be possibly related to ridinilazole were classified as gastrointestinal disorders and were mild in severity and resolved without intervention. One patient withdrew from the clinical trial after suffering from appendicitis on day one. The trial investigator determined this serious adverse event was unlikely to be related to treatment with ridinilazole.

- ***Ridinilazole was Retained in the Gastrointestinal Tract.*** Ridinilazole was targeted to the gastrointestinal tract, which is the site where CDI occurs in the body. Systemic exposure was close to or below the level of detection in both fed and fasted subjects.

- ***Ridinilazole was Highly Selective for Total Clostridia Bacteria with Minimal Impact on Other Natural Gut Flora.*** We measured levels of bacteria in fecal samples from Part 2 of the clinical trial for gut flora composition on the day prior to commencement of dosing and on days four and nine of drug administration during the clinical trial. As illustrated in the figure below, in both the 200 mg and 500 mg dose cohorts, median levels of key bacteria groups that comprise the natural gut flora remained relatively constant during this period and did not fluctuate substantially from baseline. The one exception was the total clostridia bacterial group. The counts of total clostridia decreased from the
baseline level to zero by day four of dosing and remained at zero on day nine of dosing. *C. difficile* is a member of the total clostridia group. We did not detect any *C. difficile* viable cells or spores in the fecal samples of any of the healthy volunteer subjects at any point during the clinical trial. Bacteria levels are shown in the figure below on a logarithmic scale, which condenses the wide range of values to a format showing the relative differences in values. We believe these data, which are consistent with the data from our preclinical studies, support the highly selective antibiotic effect of ridinilazole.





Phase 2 Clinical Trial in Patients with CDI

In November 2015, we reported top-line results from our randomized, double blind, active controlled, multicenter, Phase 2 clinical trial of ridinilazole in patients with CDI, and we presented additional data during 2016. We have referred to this as our Phase 2 proof of concept clinical trial and as "CoDIFy."

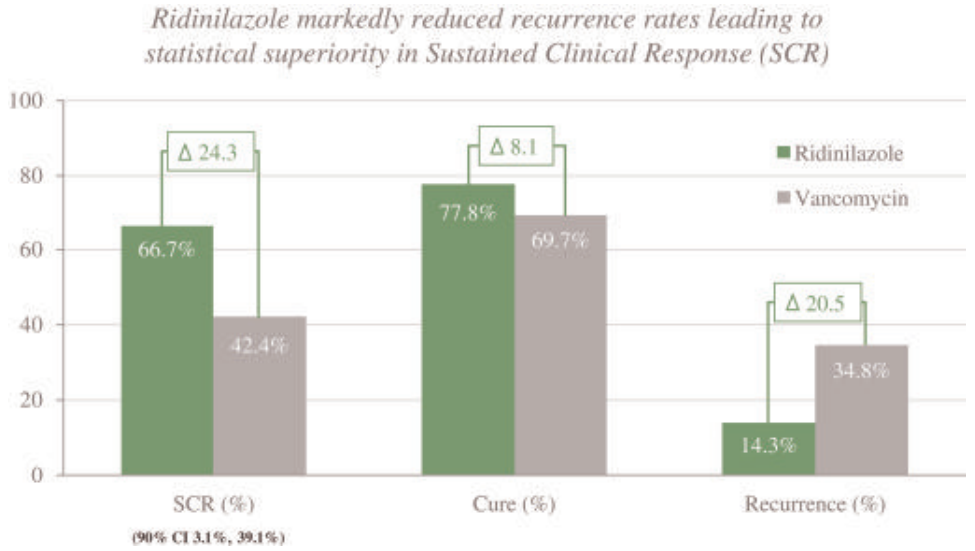
We conducted this clinical trial at approximately 35 sites in the United States and Canada. The trial was conducted under an Investigational New Drug Application, or IND, that we submitted to the FDA in January 2014. We enrolled a total of 100 patients between 18 to 90 years of age. The trial randomized patients in a one-to-one ratio to receive either a 200 mg dose of ridinilazole administered twice per day for ten days or a 125 mg dose of vancomycin administered four times per day for ten days. Patients who received ridinilazole were also administered a placebo twice a day for ten days to ensure the trial remained blinded.

The primary objective of this clinical trial was to evaluate the efficacy of ten days of dosing with ridinilazole compared to treatment with vancomycin. The primary efficacy endpoint was non-inferiority on sustained clinical response, or SCR, which is defined as clinical cure based on the resolution of diarrhea at the test of cure, or TOC, visit on day 12 and no recurrence of CDI within 30 days after the end of treatment. The secondary efficacy endpoints were investigator assessed clinical response at the TOC visit and rate of recurrence of CDI within 30 days after the end of treatment. Secondary objectives of this clinical trial were the assessment of the safety and tolerability of ten days of dosing of ridinilazole compared to vancomycin, the plasma and fecal concentrations of ridinilazole in patients with CDI who received ridinilazole and the health status of CDI patients who received ten days of treatment of ridinilazole compared to patients who received ten days of treatment of vancomycin. We also assessed the impact of ridinilazole on the gut flora of patients in the clinical trial as one of a number of exploratory objectives.

Analysis of Results

We observed the following results in our Phase 2 proof of concept trial:

- ***Ridinilazole Demonstrated Statistical Superiority Over Vancomycin.*** Our Phase 2 proof of concept trial met its primary endpoint with ridinilazole achieving a SCR rate of 66.7% compared to 42.4% for vancomycin (non-inferiority margin of 15%, p=0.0004). This represented statistical superiority of ridinilazole over vancomycin using the pre-specified 90% confidence interval. The primary analysis was conducted on the modified intent-to-treat, or mITT, population (36 patients dosed with ridinilazole, 33 patients dosed with vancomycin) that comprised patients with CDI confirmed by the presence of free toxin in feces. The results of the mITT population were consistent with the intent-to-treat, or ITT, population (50 patients dosed with ridinilazole, 50 patients dosed with vancomycin) and the per protocol, or PP, population (31 patients dosed with ridinilazole, 25 patients dosed with vancomycin). We also observed a generally consistent trend to improved SCR with ridinilazole across subgroups at higher risk of recurrence, including the elderly, patients who were on concomitant antibiotics at the start of treatment and patients with a prior history of CDI.
- ***Ridinilazole Demonstrated a Large Reduction in Rates of Recurrence Compared to Vancomycin.*** We observed that the statistical superiority in SCR with ridinilazole compared to vancomycin was driven by a large numerical reduction in rates of disease recurrence. Clinical cure rates at the end of ten days of treatment were similar, with ridinilazole achieving a rate of 77.8% compared to 69.7% for vancomycin, but ridinilazole achieved a recurrence rate of 14.3% compared to 34.8% for vancomycin during the 30-day post-treatment period.



- ***Ridinialzole Preserved the Gut Microbiome.*** Stool samples were obtained from 82 patients enrolled in the Phase 2 clinical trial to evaluate the efficacy of ridinilazole compared to vancomycin. These samples were analyzed on study entry, day five and day ten of treatment, day 25 and day 40 post-entry and at the time of any recurrence for five specific bacterial groups associated with a healthy gut microbiome (*Bacteroides*, *Prevotella*, *Enterbactericeae*, *C. coccoides* and *C. leptum*) and also for total bacteria present. We observed that patients treated with vancomycin had a significant decrease ($p<0.001$) in four of the five bacterial groups (*Bacteroides*, *Prevotella*, *C. coccoides* and *C. leptum*) at day five and day ten, and a significant decrease in total bacteria. Patients treated with ridinilazole did not have a significant decrease in these specific bacterial groups nor the total bacteria. Moreover, we observed the initial evidence of recovery of these key bacterial groups in some patients treated with ridinilazole. We believe that these data provide evidence that ridinilazole is able to preserve a healthy gut microbiome during treatment for CDI and that the recovery of the key bacterial groups contributed to the large numerical reduction in disease recurrence we observed in the trial results.

- ***Ridinilazole was Retained in the Gastrointestinal Tract.*** Ridinilazole was targeted to the gastrointestinal tract, which is the site where CDI occurs in the body. Systemic exposure was close to or below the level of detection in patients with CDI, with plasma concentrations very similar to those observed in our Phase 1 clinical trial in healthy volunteers.

- ***Ridinilazole Reduced Biomarkers of Inflammation.*** We measured levels of two key markers of inflammation, calprotectin and lactoferrin, in feces collected from the 69 patients who comprised the mITT group. The samples analyzed were collected at the time of randomization (prior to initiation of treatment), at day five and at day ten. We observed that ridinilazole and vancomycin reduced concentrations of calprotectin and lactoferrin by similar levels when analyzing the results for all patients. We also observed that a subset of patients with severe CDI had a greater reduction in levels of calprotectin and lactoferrin when treated with ridinilazole compared to vancomycin. We believe these data indicate that ridinilazole is associated with a greater reduction in inflammatory markers compared to vancomycin in patients with severe CDI.

- ***Ridinilazole was Well Tolerated.*** Ridinilazole was generally well tolerated. The overall rate of adverse events and serious adverse events reported in the ridinilazole and vancomycin treatment arms were comparable.

Phase 2 Exploratory Clinical Trial of Ridinilazole Compared to Fidaxomicin

In September 2017, we reported top-line data from our randomized, open label, active controlled, multicenter Phase 2 clinical trial evaluating ridinilazole compared to fidaxomicin for the treatment of CDI. This exploratory clinical trial was designed to generate data comparing ridinilazole to fidaxomicin, a CDI antibiotic launched in 2011, and the results of this clinical trial are expected to help to inform the commercial positioning of ridinilazole. We conducted this clinical trial at sites in the United Kingdom, Europe and the United States, enrolling 27 patients between 18 and 90 years of age. We randomized patients in a one-to-one ratio to receive either a 200 mg dose of ridinilazole administered twice per day for ten days or a 200 mg dose of fidaxomicin administered twice per day for ten days. The trial population was unbalanced with more patients randomized to ridinilazole with predisposing factors for recurrent CDI, and at a higher risk of poorer clinical outcomes as measured by ATLAS score, a tool for evaluating CDI in patients by age, temperature, leukocytes and albumin levels, and use of systemic antibiotics.

The primary efficacy objective of this clinical trial was to determine the safety and tolerability of ten days of dosing with 200 mg of ridinilazole compared to dosing with 200 mg of fidaxomicin. The secondary objectives of the clinical trial were to assess the following:

- the plasma pharmacokinetics of ridinilazole in patients with CDI;
- the qualitative and quantitative effect of ridinilazole and fidaxomicin on gut flora;
- the plasma, urine and fecal concentrations of ridinilazole and its metabolites; and
- the efficacy of ten days of dosing with ridinilazole compared to fidaxomicin for the treatment of CDI.

The measurement of efficacy was based on investigator assessed clinical response at the test of cure, or TOC, visit, with clinical cure defined as resolution of diarrhea while on treatment and maintained at the TOC visit, and sustained clinical response, defined as clinical cure at the TOC visit and no recurrence of CDI within 30 days after the end of treatment.

We reported the following findings:

- ***Ridinilazole Preserved the Microbiome to a Greater Extent than Fidaxomicin.*** We observed that following 10 days of treatment, ridinilazole had markedly less of an impact on the gut microbiome of trial patients by measures of overall diversity and changes in key bacterial families when compared to those trial patients dosed with fidaxomicin. We observed that while ridinilazole and fidaxomicin both reduced the abundance of *C. difficile*, fidaxomicin treated patients had reduced abundance of other bacterial families, including Firmicutes phylum that are thought to have direct functional roles in protecting against CDI. We observed that for a number of these bacterial families, the difference between the two treatments reach statistical significance. We also reported alpha diversity, as measured by the Simpson's Diversity Index, as another measure of microbiome health, We observed a greater reduction in alpha-diversity during fidaxomicin treatment compared with ridinilazole treatment. These measures were a key secondary endpoint of the trial. We believe that these measures provide further evidence of ridinilazole's precision in killing *C. difficile* while preserving the gut microbiome.

- ***Ridinilazole was Well Tolerated.*** The primary endpoint of the trial was safety, as measured by the number of treatment emergent adverse events and serious adverse events. During the trial, no new or unexpected safety signals were identified and ridinilazole was well-tolerated.

- ***Comparable Rates of Sustained Clinical Response.*** We observed that seven of the 14 ridinilazole treated patients and six of the 13 fidaxomicin treatment patients were cured at the end of treatment and did not have a recurrence of CDI within the following 30 days to achieve a sustained clinical response. The trial was however not designed for efficacy comparisons due to the small number of patients enrolled and so we believe no conclusions on efficacy should be made based solely on this data.

Phase 3 Clinical Trial Program

In February 2017, we outlined our plans for the Phase 3 development program of ridinilazole following an end of Phase 2 meeting with the FDA and a scientific advice process with the EMA. We expect to conduct two Phase 3 clinical trials evaluating ridinilazole compared to the standard of care antibiotic, vancomycin, with each trial expected to enroll approximately 700 patients with CDI. The primary endpoint of the Phase 3 clinical trials is expected to be superiority in SCR. Other planned endpoints include health economic outcome measures. The Phase 3 clinical trial designs are consistent with the successful proof of concept Phase 2 clinical trial of ridinilazole. Activities to prepare ridinilazole for Phase 3 clinical trials continue, and we plan to commence these trials in the first quarter of 2019.

We have been awarded a contract from BARDA worth up to $62 million that will, in part, fund our planned Phase 3 clinical trials. We have also received $2.5 million upfront as part of our license and commercialization agreement with Eurofarma and are eligible to receive an additional $3.75 million in development milestones upon the achievement of staged patient enrollment targets in the planned Phase 3 clinical trials of ridinilazole.

CDI Preclinical Data

In a range of preclinical studies, ridinilazole demonstrated an encouraging profile as a potential antibiotic for the treatment of initial CDI and reduction of CDI recurrence. The following is a summary of key observations from these studies:

- ***Potency Against C. difficile***. We screened ridinilazole *in vitro* against panels of *C. Difficile* clinical isolates from the United States and the United Kingdom. In these studies, ridinilazole displayed a potent bactericidal effect against all clinical isolates of *C. difficile*, including hypervirulent strains, such as ribotype 027. Ridinilazole was more potent than both vancomycin and metronidazole, and was either equally potent to, or more potent than, fidaxomicin. We have also tested ridinilazole against a panel of *C. difficile* clinical isolates that maximize the diversity of resistance to key classes of commonly used antibiotics. Ridinilazole did not display evidence of cross resistance with other classes of key antibiotics in common use.

- ***Targeted Spectrum of Activity***. We conducted *in vitro* testing of ridinilazole, vancomycin, metronidazole and fidaxomicin against a wide panel of bacteria that are commonly found in the gut flora and are necessary for normal function of the gastrointestinal tract and also have wide implications on human health, such as the proper function of the immune system. As illustrated in the figure below, in this study ridinilazole had a minimal antibiotic effect against these beneficial bacterial groups. Ridinilazole also displayed higher selectivity for *C. difficile* in this study as compared to vancomycin, metronidazole and fidaxomicin and published data for cadazolid, an antibiotic that was reported recently by another company to have missed its primary endpoint of non-inferiority to vancomycin on clinical cure in one Phase 3 clinical trial, but achieved the same primary endpoint in a second Phase 3 clinical trial. *In vitro* potency is measured by determining the concentration of a drug (in micrograms per liter) needed to inhibit the growth of 90% of the bacterial strains being tested, referred to as a MIC90 measurement. A high number, typically higher than 256, indicates a weak antimicrobial effect, and a low number, typically less than eight, indicates a potent antimicrobial effect. We believe that the targeted spectrum of activity for ridinilazole seen in this study compared to the relatively broad spectrum of activity of other antibiotics indicates the potential for ridinilazole to selectively target *C. difficile* bacteria without causing collateral damage to the gut flora and thereby reduce CDI recurrence rates.

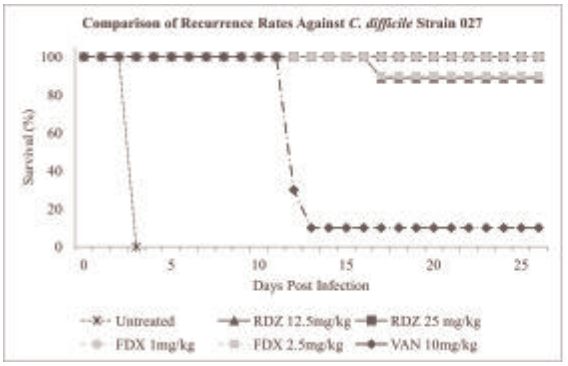
Profile of Selectivity of Ridinilazole vs. Other CDI Antibiotics

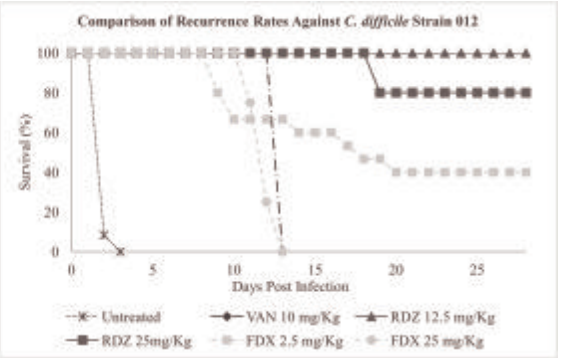
Key Bacterial Groups	Spectrum of Activity – MIC_{90} (µg/mL)				
	RDZ	MTZ	VAN	FDX	CAD*
Bacteroides spp.	>512	2	128	>512	4
Bifidobacterium spp.	>512	128	1	0.125	0.5
Lactobacillus spp.	>512	>512	>512	>512	-
Eggerthella lenta	>512	0.5	4	≤0.03	0.5
Peptostreptococcus spp.	64	1	0.5	≤0.03	-
Staphylococcus aureus	>512	>512	1	16	1.0

Antibiotic effect: Weak; Medium; Potent

RDZ: Ridinilazole VAN: Vancomycin CAD: Cadazolid
MTZ: Metronidazole FDX: Fidaxomicin

- ***Protection Against CDI Recurrence***. In a hamster model, we infected one group of hamsters with the hypervirulent CDI strain ribotype 027 and a second group of hamsters with a second CDI strain ribotype 012. In the United States, the hypervirulent CDI strain ribotype 027 accounts for approximately one third of all CDI cases. We then treated hamsters from each of the two infected groups with different doses of ridinilazole, vancomycin and fidaxomicin for five days. We evaluated disease recurrence over the 21 days following treatment. In this hamster model, a hamster fatality within the first five days is a result of initial *C. difficile* infection, while a fatality from day six to day 25 is a result of recurrent disease. As illustrated in the figure below, the hamsters from both infected groups that were treated with two different doses of ridinilazole had survival rates of 90% to 100% against strain ribotype 027 and 80% to 100% against strain ribotype 012. These survival rates were higher than hamsters treated with vancomycin (0% to 10% survival rates) for both CDI strains, comparable to hamsters treated with two different doses of fidaxomicin against strain ribotype 027 (90% to 100% survival rates) and higher than hamsters treated with two different doses of fidaxomicin against strain ribotype 012 (0% to 40% survival rates). All infection control hamsters received placebo and died by the second day following infection.





- ***Inhibition of Sporulation***. In the *in vitro* testing of ridinilazole described above, we treated *C. difficile* cells with different concentrations of ridinilazole and measured the percentage of spores formed 96 hours after treatment. Untreated cells had a 100% conversion rate into *C. difficile* spores, which are the dormant protected form of the bacteria, after 96 hours. In this study, treatment with ridinilazole resulted in a meaningful reduction in spore count compared with untreated cells against all strains of *C. difficile* tested. We believe the reduction in sporulation may benefit rates of recurrent disease as the spores are highly resistant to standard cleaning practices and lead to increased risks of environmental persistence and disease transmission.

- ***Reduction in Toxin and Inflammation Levels***. In an *in vitro* study, Caco-2 cells, a type of cell found in the colon of humans commonly used in studies of intestinal function, were exposed to *C. difficile* and then treated with ridinilazole, metronidazole and vancomycin or were untreated to act as a control. Following treatment with ridinilazole, toxin A levels were reduced by 91%, toxin B was not detected and IL-8 levels were reduced by 74%. Metronidazole and vancomycin had minimal effect on toxin A or B concentrations, and IL-8 concentrations were similar to control. Toxins A and B are produced by *C. difficile* to elicit an inflammatory response, including IL-8 release, which results in the symptoms of the disease including severe diarrhea. We believe that these data indicate that ridinilazole has the potential to reduce the severity of disease symptoms and that it has the potential to be more effective than current treatment options.

- ***Concomitant Antibiotic Use***. In an *in vitro* bacterial culture study, we administered ridinilazole in combination with selected other antibiotics. In this study, concomitant use of antibiotics had neither a synergistic nor an antagonistic effect on the MIC90 values of ridinilazole against the *C. difficile* strains tested. We believe these results indicate that concomitant use of other antibiotics will not diminish the potency of ridinilazole. We believe this is an important finding because a significant portion of CDI patients receive antibiotic treatment for persistent or new infections.

- ***Low Propensity for Resistance***. In an *in vitro* study, we treated *C. difficile* bacteria with ridinilazole and assessed the number of resistant bacteria at the end of treatment. We repeated this process multiple times, with each cycle referred to as a serial passage. We observed that use of ridinilazole resulted in a low frequency of spontaneous mutation and no resistance after 14 serial passages of treatment. We have also evaluated ridinilazole mutant prevention concentration, or MPC, a measure evaluating the ability of an antibiotic to minimize the development of resistant organisms, against *C. difficile* clinical isolates. *In vitro* results show that ridinilazole has low MPC values against these isolates, providing further evidence supporting ridinilazole's profile for low resistance development.

- ***Ridinilazole Arrests Cell Division***. In an *in vitro* study, we treated *C. difficile* bacteria with ridinilazole and assessed its effects on killing the bacteria. The study revealed that ridinilazole halts *C. difficile* cell division, characterized by a significant increase in the length of *C. difficile* cells and an absence of division septum formation.

Infectious Disease Pipeline

We are seeking to build a pipeline of new mechanism antibiotics focused on treating patients with serious bacterial infections where there is a substantial unmet need and where we believe we have the ability to show advantages over current treatments. On December 23, 2017, we expanded our activities in this field when we acquired Discuva Limited, a privately held U.K.-based company. Through this acquisition, we obtained a bacterial genetics-based platform that facilitates the discovery and development of new mechanism antibiotics. With this acquisition, we believe we are better placed to advance additional potential drug treatments for patients with serious bacterial infections. In March 2018, we announced that we had identified a new series of antibiotic compounds that have shown to have high potency against strains of gonorrhea with no development of resistance to date. These series were identified using our recently acquired bacterial genetics-based platform. We intend to select a candidate from this series for entry into IND enabling studies in the second half of 2018.

Our Collaborations and Funding Arrangements

Sarepta Therapeutics, Inc.

In October 2016, we entered into an exclusive license and collaboration agreement with Sarepta, pursuant to which we granted Sarepta the exclusive right to commercialize products in our utrophin modulator pipeline in the European Union, Switzerland, Norway, Iceland, Turkey and the Commonwealth of Independent States, which we refer to as the licensed territory. Such products include ezutromid and our future generation of small molecule utrophin modulators, which we refer to as licensed products. We also granted Sarepta an option to expand the licensed territory to include certain specified countries in Central and South America. We retain commercialization rights in the rest of the world.

Financial Terms

Under the terms of the license and collaboration agreement, we received an aggregate of $62.0 million in payments from Sarepta that were comprised of an upfront payment of $40.0 million and a milestone payment of $22.0 million that we received following the first dosing of the last patient enrolled in our PhaseOut DMD clinical trial. In addition, we are eligible to receive up to an additional $20.0 million from Sarepta in specified development milestones for ezutromid and up to $150.0 million from Sarepta in specified regulatory milestones related to ezutromid in the licensed territory. We are also eligible to receive up to $65.0 million in specified development milestones and up to $225.0 million in specified regulatory milestones from Sarepta for our future generation small molecule utrophin modulators in the licensed territory. In addition, we are also eligible to receive up to $330.0 million from Sarepta in specified sales milestones on a product-by-product basis, as well as tiered, escalating royalties ranging from a low to high teens percentage of net sales on a product-by-product basis in the licensed territory. The royalties are subject to potential reductions, including for a specified portion of royalty payments that Sarepta may become required to pay under any third-party license agreements, subject to a maximum royalty reduction.

Research and Development Obligations

Under the license and collaboration agreement, we have agreed to collaborate with Sarepta on the research and development of the licensed products pursuant to a joint development plan through a joint steering committee comprised of an equal number of representatives from each party. Sarepta has the final decision making authority with respect to commercialization decisions of the licensed products in the licensed territory. If the joint steering committee elects not to pursue development of a second generation or future generation small molecule utrophin modulator candidate, then we may engage, under certain circumstances, in the development of such candidate for commercialization outside of the licensed territory and outside of the agreement, subject to Sarepta's option, exercisable at Sarepta's discretion and only available to Sarepta under certain specified circumstances, to bring such candidate under the license and collaboration agreement.

Under the license and collaboration agreement, we were solely responsible for all research and development costs for the licensed products until December 31, 2017. From January 1, 2018, we will be responsible for 55.0% of the budgeted research and development costs related to the licensed products in the licensed territory, and Sarepta will be responsible for 45.0% of such costs. Any costs in excess of 110.0% of the budgeted amount are borne by the party that incurred such costs. We are also obligated to spend a specified minimum amount on the research and development of certain licensed products prior to the end of 2019.

Manufacture and Supply of Licensed Products

We have agreed to use commercially reasonable efforts to supply to Sarepta active pharmaceutical ingredient, finished drug product and placebo for Sarepta to conduct research, development and commercialization activities for the licensed products in accordance with the license and collaboration agreement. Sarepta also will have the right to establish back up and second source suppliers under certain circumstances.

Intellectual Property

Under the terms of the license and collaboration agreement, each party will own the entire right, title and interest in and to all know-how and patent rights first made or invented solely by the employees or consultants of such party in the course of the collaboration, and all such know-how and patent rights will be included in the licenses granted to the other party under the license and collaboration agreement. The parties will jointly own all rights, title and interests in and to all know-how and patent rights first made or invented jointly by employees or consultants of the parties in the course of the collaboration.

Latin America Option

Under the license and collaboration agreement, Sarepta has an exclusive option, which we refer to as the Latin America Option to expand the licensed territory to include specified countries in South and Central America, which we refer to as the Option Territory. Sarepta may exercise the Latin America Option at any time prior to the date that is three months following the first receipt of regulatory approval for a licensed product in the United States or the European Union. We are eligible to receive from Sarepta up to an aggregate of $17.0 million for the exercise of the Latin America Option and the achievement of certain regulatory milestones. If Sarepta exercises the Latin America Option, it will be solely responsible for all research, development and commercialization costs of the licensed products that are specific to the Option Territory. We are also be eligible to receive up to $82.5 million in specified sales milestones on a product-by-product basis in the Option Territory, as well as royalties at the same rates as elsewhere in the licensed territory.

Commercialization

Under the license and collaboration agreement, Sarepta will be solely responsible for all commercialization activities and associated costs, relating to licensed products in the licensed territories. Sarepta has agreed to use commercially reasonable efforts to commercialize licensed products in specified countries within the licensed territories and, if the Latin America Option is exercised, to use commercially reasonable efforts to commercialize licensed products in certain specified countries within the Option Territory.

Termination Provision

Unless earlier terminated, the license and collaboration agreement will expire on a licensed product-by-licensed product and country-by-country basis upon the expiration of the royalty term in such country for such licensed product. The license and collaboration agreement may be terminated by Sarepta upon six months' prior written notice in its entirety or on a licensed product-by-licensed product and country-by-country basis. Either party may, subject to a cure period, terminate the license and collaboration agreement in the event of the other party's uncured material breach. Sarepta may also terminate the license and collaboration agreement under specified circumstances relating to the safety or regulatory approvability of ezutromid. Except with respect to a second generation or future generation small molecule utrophin modulator candidate that the joint steering committee elects not to pursue, as described above, during the term of the license and collaboration agreement the parties are prohibited from commercializing small molecule utrophin modulators anywhere in the world outside of the collaboration. Such exclusivity commitment may survive for one year following termination with respect to one party depending upon the circumstances of termination.

Standstill Provision

The license and collaboration agreement also contains a standstill provision pursuant to which, among other things, each party has agreed that, for a period from the execution of the license and collaboration agreement until the date that regulatory approval is first received for a licensed product, subject to certain exceptions, or unless invited in writing by the other party to do so, neither party nor its respective affiliates will, directly or indirectly: (i) effect or seek, offer or propose to effect, or cause or participate in any acquisition of securities or assets of the other party; any tender or exchange offer, merger, consolidation or other business combination involving the other party; any recapitalization, restructuring, liquidation, dissolution or other extraordinary transaction with respect to the other party; or any "solicitation" of "proxies" or consents to vote any voting securities of the other party, or in any way advise or, assist any other person in doing so; (ii) form, join or in any way participate in a "group" with respect to any securities of the other party; (iii) act in concert with any person in relation to voting securities of the other party; (iv) otherwise act to seek to control or influence the management, board of directors or policies of the other party; (v) take any action reasonably expected to force the other party to make a public announcement regarding any such matters; or (iv) enter into any agreements, discussions or arrangements with any third party with respect to any of the foregoing.

University of Oxford

In November 2013, we acquired all of the outstanding equity of MuOx Limited, or MuOx, a spin out of the University of Oxford founded by Professors Stephen Davies and Kay Davies. MuOx is our wholly owned subsidiary. In connection with that acquisition, we and MuOx entered into a set of agreements with the University of Oxford and its technology transfer division, Isis Innovation Limited, which is now known as Oxford University Innovation Limited, or OUI, regarding the development of small molecule utrophin modulators. In November 2015, this set of agreements were extended through November 2019, with an option to extend for a further twelve months.

Research Sponsorship

We have agreed to fund a drug research and discovery program in the University of Oxford laboratories to identify and research utrophin modulators to treat DMD. The University of Oxford is responsible for conducting this program. OUI has no obligations under the research sponsorship agreement. We refer to the agreement that governs our research sponsorship with the University of Oxford, which we, the University of Oxford and OUI entered into in November 2013, amended and restated in July 2014 and amended further in November 2015 and September 2017, as the research sponsorship agreement. Under the research sponsorship agreement, we have agreed to fund up to £4.6 million over a six-year research period ending in November 2019. If we exercise our right to extend the research period by an additional year, we have agreed to fund an additional £0.8 million, for a total of £5.4 million. As of January 31, 2018, we had paid the University of Oxford £3.1 million of this amount.

The University of Oxford will own all intellectual property arising from the sponsored research, and we have agreed to assign to the University of Oxford any intellectual property arising from the sponsored research that either we or third parties whom we engage, may create, subject to our exercise of an option to obtain an exclusive license under the intellectual property arising from the sponsored research, as described below.

Either we or the University of Oxford would have the right to terminate the research sponsorship agreement for specified reasons, including the other party's insolvency or material breach, if the breach remains uncured for a specified period or is uncurable, or our mutual determination, at specified times, that there are valid scientific reasons for terminating the project. The University of Oxford may also terminate the research sponsorship agreement if we default on more than one payment obligation and do not remedy the failure within a specified period after receiving notice. We may also terminate the research sponsorship agreement, after a specified period of time if any of the principal investigators is unable or unwilling to continue supervising the sponsored research and the successor proposed by the University of Oxford is not acceptable to us on reasonable and substantial grounds.

License of Know-How

In November 2013, OUI executed a know-how license agreement with MuOx. We refer to the agreement, which was amended in July 2014 and March 2017, as the know-how license agreement. In the know-how license agreement, OUI granted MuOx a license under specified know-how, consisting of data and other information associated with specified utrophin modulators and biological screening technology, and all intellectual property rights pertaining to the specified know-how, to research, develop, make, have made, use, have used, import, have imported, export, have exported, and market the licensed know-how and products or processes resulting from the licensed know-how. The know-how license agreement was novated to us in March 2017. We refer to the know-how specified in the know-how license agreement, as Oxford's background know-how. Our rights under Oxford's background know-how in the specified utrophin modulators are exclusive and sublicenseable. Our rights under Oxford's background know-how in the biological screening technology were initially exclusive, but became non-exclusive in November 2016. In March 2017, we amended the know-how license agreement to extend our rights under Oxford's background know-how for certain biological screening technologies to November 2019, subject to an option to extend for a further twelve months. We paid to OUI a nominal amount upon its entry into the amendment in March 2017 and, pursuant to the amendment, agreed to pay to OUI additional nominal amounts annually for the term of the exclusive license period, provided the amounts payable in the final year of the exclusive license period shall only be payable if we further extend the term of the exclusive license. Our rights under the know-how license agreement are sublicenseable with OUI's consent, which may not be unreasonably withheld. Our rights are also subject to the rights of the University of Oxford, the Muscular Dystrophy Association and the Muscular Dystrophy Campaign, and their respective employees, students and agents, to use and publish Oxford's background know-how for specified scholarly and academic research and teaching purposes. We have agreed to use commercially reasonable efforts to develop, exploit and market Oxford's background know-how or any compound deriving from Oxford's background know-how.

The know-how license agreement will remain in effect at least until November 2019 with respect to the biological screening technology know-how, and otherwise, with respect to each of the compound or biological screening technology know-how, as long as we or our sublicensees are using commercially reasonable efforts to research and develop compounds derived from that know-how. Either we or OUI would have the right to terminate the know-how license agreement if the other party materially breaches the know-how license agreement and the breach remains uncured for a specified period or is uncurable. We may terminate the know-how license agreement at our discretion by giving OUI six months' prior written notice. OUI may terminate the know-how license agreement on thirty days' notice if we fail to use commercially reasonable efforts to exploit Oxford's background know-how and do not remedy such breach within a specified time, or immediately, if we take specified actions relating to winding up or experience certain insolvency-related events.

Exclusive Option Rights

We refer to the intellectual property rights arising under the research sponsorship agreement, or arising from research and development of small molecule utrophin modulation conducted by or under the supervision of certain University of Oxford scientists, that is created or reduced to practice after November 2013 and within a specified time after the expiration or termination of the research sponsorship agreement, as arising IP. Under an option agreement that we, the University of Oxford and OUI entered into in November 2013 and amended in November 2015, which we refer to, as amended, as the option agreement, OUI granted us an exclusive option to license the arising IP. We paid OUI £10,000 in connection with entering into the amendment to the option agreement. We may exercise the option within specified periods.

In connection with entering into the initial option agreement, we paid OUI an option fee of a specified amount and issued to OUI warrants to purchase up to 354,090 of our ordinary shares at a purchase price of £0.20 per ordinary share. In connection with the November 2015 amendment, we extended the period during which OUI may exercise such options to February 2020. The warrants may be exercised based on the achievement of certain research, development and regulatory milestones. In November 2015, we announced the nomination of two series of new utrophin modulators for progression into lead optimization studies to achieve the first research milestone. This entitled OUI to subscribe for 50,000 new ordinary one penny shares at an exercise price of 20 pence per share during the three month period starting November 22, 2016, all of which were exercised in February 2017. The remaining warrants did not meet the specified milestones in the specified timeframe and have now lapsed.

If we exercise our option to obtain a license under arising IP, we would be obligated to pay OUI up to a specified sum in option exercise fees, and OUI will use reasonable efforts to enter into a license agreement as quickly as possible, subject to OUI obtaining all necessary intellectual property assignments and conducting its internal due diligence procedures.

For any arising IP for which we have exercised the option and that comprises new chemical entities or compounds, which we refer to as optioned compounds, we would obtain an exclusive, sublicenseable license. We are obligated to pay milestone payments of up to £75,000 upon the achievement of specified development milestones, whether such milestones occur prior to or after our exercise of the option to obtain an exclusive sublicenseable license. Following exercise of such an option we would also be obligated to pay milestone payments upon the achievement of specified regulatory milestones with respect to each optioned compound. The specified regulatory milestone payment is due each time the specified regulatory milestone is achieved with respect to an optioned compound and, if each optioned compound achieved each regulatory milestone once, we would be obligated to pay OUI a total of £3.7 million in regulatory milestone payments for each optioned compound.

We would also be obligated to pay OUI a low single digit royalty of net sales by us, our affiliates or sublicensees of any product containing an optioned compound, which we refer to as a licensed product, subject to specified reductions. Our obligation to pay the royalty would expire on the later of the expiration of the last valid claim of any licensed patent or patent application claiming the licensed product or 20 years after the date on which we enter the license agreement. We would also be obligated to pay OUI a low single digit percentage of any payments we receive in connection with granting a sublicense under the licensed arising IP.

If we funded the development of the arising IP for the optioned compounds, through our funding under the research sponsorship agreement or by funding work at contract research organizations prior to the creation of the arising IP, then the milestone and royalty payments will be reduced to reflect the value that our funding delivered to the arising IP. We and OUI would negotiate such adjustment in good faith. If we and OUI are unable to agree, an expert will be appointed to make the determination.

For any arising IP for which we have exercised the option and that does not comprise new chemical entities or compound, which we call enabling IP, we would obtain an exclusive license, which we could sublicense with OUI's prior written consent, not to be unreasonably withheld, delayed or conditioned. We and OUI would negotiate the milestone payments and any other payments that we would be obligated to pay to OUI with respect to enabling IP. If we and OUI are unable to agree, an expert will be appointed to make the determination.

Any license granted to us under arising IP would be subject to the rights of the University of Oxford, and any person who at any time worked on the licensed arising IP, to use and publish the arising IP for specified scholarly and academic research and teaching purposes. We would also be obligated to use commercially reasonable efforts to develop, exploit and market the arising IP licensed to us.

The license agreement would remain in effect as long as we are using commercially reasonable efforts to develop and market the licensed products, unless terminated earlier by us or OUI, or extended by mutual agreement. Either we or OUI would be permitted to terminate the license agreement at any time if the other party materially breaches the license agreement and the breach remains uncured for a specified period or the breach is uncurable. We would be permitted to terminate the license agreement for any reason after it has been in effect for three years upon giving six months' prior written notice. OUI would be permitted to terminate the license agreement if we challenge the validity of the licensed patents or patent applications or if we claim that we are no longer obligated to make payments to OUI under the license agreement because the know-how is unnecessary, or if we take specified actions relating to winding up or experience certain insolvency-related events. Upon termination of the license agreement, we would be obligated to grant OUI an irrevocable, transferable, non-exclusive license to develop, make, have made, use and market any improvements made by us during the option period, and related intellectual property rights, subject to the payment of a reasonable royalty.

The option agreement will remain in effect until a specified period of time, sufficient for us and OUI to enter into the license agreement, after our rights to exercise the options terminate, unless the option agreement is terminated earlier by either OUI and the University of Oxford, or us. Either we, or OUI and the University of Oxford, may terminate the option agreement at any time if the other materially breaches the option agreement and the breach remains uncured for a specified period or the breach is uncurable, or if the other becomes insolvent. We may also terminate the option agreement, effective on each anniversary of the effective date of the option agreement, by giving 60 days' prior written notice to OUI and the University of Oxford.

Wellcome Trust

In October 2012, we entered into a translation award funding agreement with the Wellcome Trust Limited, as trustee of the Wellcome Trust, in order to support a Phase 1 and a Phase 2 clinical trial of ridinilazole for the treatment of CDI. We refer to the translation award funding agreement as the translation award agreement. Under the translation award agreement, we were eligible to receive up to £4.0 million from the Wellcome Trust, of which we have received the entire £4.0 million. The translation award agreement followed a funding agreement we and the Wellcome Trust entered in October 2009, which we refer to as the discovery award agreement, under which we received £2.3 million for preclinical development of CDI antibiotics. We refer to any compound or product that is covered by intellectual property rights created under the discovery award agreement or the translation award agreement, or that is covered by intellectual property rights that we created or to which we had rights prior to October 2009 and that relate to the activities under the discovery award agreement or the translation award agreement, as the award products. We agreed to use commercially reasonable efforts to achieve certain development milestones by specified dates.

We would be required to make a full or partial repayment to the Wellcome Trust of the funding we received under the translation award agreement, plus accrued interest, under specified conditions, including our unauthorized use of the award amount, our fraudulent or willful misconduct, our knowingly withholding material information from the Wellcome Trust, or an acquisition by certain third parties of all or a material part of our business or assets or of a majority of our equity. Upon such a full repayment, our obligation to share a portion of net revenue with the Wellcome Trust would terminate.

Termination

Unless earlier terminated by the Wellcome Trust, the translation award agreement will terminate on the earlier of our full repayment of the award amount, plus accrued interest, to the Wellcome Trust following its request for repayment, or the expiration of all payment obligations under the translation award agreement and the revenue sharing agreement. The Wellcome Trust may terminate the translation award agreement for specified reasons, including our material breach or insolvency related events or the Wellcome Trust's determination that the clinical trials should be terminated due to a serious failure in the progress, management or conduct of the clinical trials, if we do not remedy such condition within a specified period after receiving notice.

Assignment

We may not, without the Wellcome Trust's prior consent, assign, transfer or declare a trust over the translation award agreement or otherwise dispose of any of our rights or obligations under the translation award agreement, with such consent not being unreasonably withheld, delayed or conditioned, other than an assignment to our affiliates.

Revenue Sharing Agreement

The terms of the translation award agreement required us to enter into a revenue sharing agreement with the Wellcome Trust prior to the further development (beyond the Phase 2 trial supported by the 2012 translational award agreement) and commercialization, which together we refer to as the "Exploitation" of any compound or product that is covered by the intellectual property rights created under the translational award agreement or the discovery award agreement, or that is covered by background intellectual property rights. Under such revenue sharing agreement, the Wellcome Trust would be entitled to a share of the net revenue that we, our affiliates, licensees or third-party collaborators receive under the Exploitation of the award products or any intellectual property associated with such Exploitation.

In October 2017, we entered into a revenue sharing agreement with the Wellcome Trust. Under the terms of the revenue sharing agreement: i) if we commercialize ridinilazole, the Wellcome Trust is eligible to receive a low-single digit percentage of net revenue (as defined in the translation award agreement), and a one-time milestone payment of a specified amount if cumulative net revenues exceed a specified amount; ii) if a third party commercializes ridinilazole, the Wellcome Trust is eligible to receive a mid-single digit percentage of the net revenues we receive from commercial sales by such third party, and a one-time milestone payment of a specified amount if cumulative net revenues we receive exceed a specified amount. In addition, following the first commercial sale by such third party, the Wellcome Trust is eligible to receive a one-time milestone payment equal to a low-single digit percentage of the aggregate amount of any pre-commercial payments we receive from third-party licensees prior to such commercial sale; and iii) in the event of an assignment or sale of the assets or intellectual property pertaining to ridinilazole, the net proceeds we receive from such assignment or sale would be treated as net revenue under the revenue sharing agreement.

Under the revenue sharing agreement, it was agreed that any development funding or grant funding we receive from BARDA or other third parties, including licensees, would not be classified as net revenue or as a pre-commercial payment. In addition, under the revenue sharing agreement, the Wellcome Trust agreed to terminate all of its rights under the translation award agreement to develop or commercialize the award products or the related intellectual property in specified markets and in specified indications, in the event that we were not developing or commercializing the award products or such intellectual property for such markets or in such indications.

Unless earlier terminated, the revenue sharing agreement will expire upon later of the expiration of the last patent or patent application covering ridinilazole; the expiration of any agreement or payment obligations entered into by ourselves with a third party relating to the Exploitation of ridinilazole; and the expiration of any payment obligations owed to the Wellcome Trust relating to the Exploitation of ridinilazole. In addition, each party has the right to terminate the revenue sharing agreement if the other party materially breaches the agreement and the breach remains uncured for a specified period or the breach is uncurable, or if the other party experiences specified insolvency related events.

Muscular Dystrophy Association

In December 2011, we entered into a grant agreement with the Muscular Dystrophy Association, Inc., or MDA, a not for profit corporation based in New York, in order to partially fund a Phase 1 clinical trial of ezutromid to treat DMD. We refer to this grant agreement with MDA as the MDA grant agreement. To date, we have received the entire amount of MDA's grant to us, or an aggregate of $750,000.

Financial Terms

We refer to small molecules that can upregulate the utrophin gene, including ezutromid and compounds with similar mechanisms of action to which we have rights, as project compounds. Under the MDA grant agreement, we have agreed to make specified milestone payments to MDA during our or our affiliates' development and commercialization of pharmaceutical products containing the project compounds, which we refer to as project products. Because we raised more than a specified aggregate amount of funding, we have paid a specified sum to MDA under the terms of the agreement, which we refer to as the MDA cash infusion milestone payment.

We have also agreed to pay MDA a specified lump sum amount, less any previously paid MDA cash infusion milestone payment, following the regulatory approval of any project product for use or sale in the United States or European Union for the treatment of DMD or Becker muscular dystrophy, or BMD, and an additional specified sum upon achievement of a commercial milestone. We would be obligated to pay MDA a low single digit percentage royalty of worldwide net sales by us, our affiliates or licensees of any project product. If we assign our rights to any of the project compounds or experience specified change in control events, MDA may require our assignee to assume our obligations under the MDA grant agreement with respect to the assigned rights, or require us to pay MDA the greater of a low single digit percentage of the fair market value of the assigned rights, or an amount that would give MDA an internal rate of return of a low double digit percentage on its grant to us.

Interruption License

Upon the occurrence of specified events, which we refer to as interruptions, we have agreed to refund to MDA the entire grant amount of $750,000 plus a low double digit interest on that amount, subject to specified exemptions. An interruption may occur if we or our affiliates cease reasonable research, development and commercialization of project products and cease using diligent efforts to obtain a third party development and commercialization partner, which require our annual expenditure of a minimum specified amount on such efforts for longer than a specified period. Interruptions may also occur if we license the rights to develop and commercialize project products to a third party without retaining a right of reversion, and such partner ceases reasonable development and commercialization of project products for longer than a specified period or ceases to sell project products in the United States or European Union, or if we, upon the reversion of such rights from a third party commercialization partner to us, fail to use reasonable efforts to develop and commercialize project products and cease using diligent efforts to obtain a third party development and commercialization partner, or, within a specified period from the date of reversion, to license the development and commercialization activities of project products to a third party. In all such cases, we are exempt from interruption payments in the event of specified scientific failures, including if we fail to achieve primary endpoints for any clinical trial of ezutromid, if the project compounds are unfit for administration to humans or if we cannot develop a commercial manufacturing process.

We have granted to MDA, effective on the occurrence of such an interruption, an exclusive, sublicenseable, worldwide, perpetual, irrevocable and royalty-free license under the patent rights, know-how and intellectual property that we control, useful for the project compounds or project products, to research, develop, manufacture, have manufactured, use, sell, offer to sell, import and export the project compounds and project products for the prevention, treatment, or amelioration of DMD or BMD. We refer to such license as the interruption license. Upon the effectiveness of the interruption license, we would be obligated to assign to MDA or its designee the regulatory filings, regulatory approvals, and contract rights that we or our affiliates own, and deliver specified know-how, in each case, relating to project compounds and project products.

MDA acknowledges that if a royalty or other payment is due to any third party from whom we licensed or acquired the intellectual property licensed to MDA, the interruption license is contingent on MDA or its sublicensee assuming those obligations resulting from their exercise of the interruption license.

Termination

The MDA grant agreement will continue indefinitely.

Duchenne Partners Fund

In December 2011, we entered into a grant agreement with the Duchenne Partners Fund, LLC, or DPF, a Delaware limited liability company, in order to partially fund a Phase 1 clinical trial of ezutromid to treat DMD. We refer to this grant agreement with DPF as the DPF grant agreement. To date, we have received the entire amount of DPF's grant to us, or an aggregate of $500,000.

Financial Terms

We refer to small molecules that can upregulate the utrophin gene, including ezutromid and compounds with similar mechanisms of action to which we have rights, as project compounds. Under the DPF grant agreement, we have agreed to make specified milestone payments to DPF during our or our affiliates' development and commercialization of pharmaceutical products containing the project compounds, which we refer to as project products. Because we raised more than a specified aggregate amount of funding, we have paid a specified sum to DPF under the terms of the agreement, which we refer to as the DPF cash infusion milestone payment. We have also agreed to pay DPF a specified lump sum amount, less any previously paid DPF cash infusion milestone payment, following the regulatory approval of any project product for use or sale in the United States or European Union for the treatment of DMD or BMD and an additional specified sum upon achievement of a commercial milestone. We would be obligated to pay DPF a low single digit percentage royalty of worldwide net sales by us, our affiliates or licensees of any project product. If we assign our rights to any of the project compounds or experience specified change in control events, DPF may require our assignee to assume our obligations under the DPF grant agreement with respect to the assigned rights, or require us to pay DPF the greater of a low single digit percentage of the fair market value of the assigned rights, or an amount that would give DPF an internal rate of return of a low double digit percentage on its grant to us.

Termination

The DPF grant agreement will continue indefinitely.

BARDA

In September 2017, we were awarded a contract from the Biomedical Advanced Research and Development Authority, or BARDA, to fund, in part, the clinical and regulatory development of ridinilazole for the treatment of infections caused by *C. difficile*. The contract includes an approximate 12-month base period with federal government funding of approximately $32 million. In addition, there are three option work segments that, if exercised in full by BARDA, would increase the total federal government funding under the contract to approximately $62 million.

The contract provides for a cost-sharing arrangement under which BARDA would fund a specified portion of estimated costs for the continued clinical and regulatory development of ridinilazole for CDI. Under this cost sharing arrangement, we are responsible for a portion of the costs associated with each segment of work, including any costs in excess of the estimated amounts.

During the base period of the contract, BARDA has agreed to fund, in part, activities for our two planned Phase 3 clinical trials of ridinilazole, including obtaining requisite regulatory approvals for the opening of trial sites, arranging for the manufacture of clinical supply of ridinilazole and engaging third-party contract research organizations to conduct the planned clinical trials including initial patient enrollment and treatment. The three option work segments, if exercised in full, would provide for up to an additional $30 million of funding from BARDA and would support the development of ridinilazole through to potential submission of applications for marketing approval. Activities to be covered by the three option work segments include the completion of patient enrollment and treatment in our two planned Phase 3 clinical trials and the delivery of final reports related to both trials; drug manufacturing-related enabling activities for the submission of applications for marketing approval; and the preparation, submission and review of applications for marketing approvals of ridinilazole for CDI in the United States.

Each of the three option work segments is an independent, discrete work segment that is eligible to be exercised, in BARDA's sole discretion, upon the completion of agreed-upon milestones and deliverables. If all option work segments are exercised by BARDA, the contract would run into 2022, unless extended by us and BARDA.

The contract specifies the plan of activities to be conducted under the contract. In addition to our obligations to conduct the activities provided for by the plan, we are obligated to satisfy various federal reporting requirements, addressing clinical progress, technical issues, and intellectual property and financial matters. Payments to us under the contract are expected to be made monthly after we invoice BARDA for allowable costs that have been incurred.

BARDA may terminate this agreement upon our uncured default in our performance of the agreement or at any time if the contracting officer determines that it is in the U.S. government's interest to terminate the agreement.

Under standard U.S. government contracting terms, the U.S. government receives only limited rights for government use of certain of our pre-existing data and certain data produced with non-federal funding, to the extent such data are required for delivery to BARDA under the contract. The U.S. government receives unlimited rights to use and disclose new data first produced under the contract with BARDA. Except for commercialization rights to ridinilazole in South America, Central America and the Caribbean, we currently have exclusive worldwide commercialization rights to ridinilazole and retains these rights under the BARDA contract. However, the U.S. government is entitled to a nonexclusive, nontransferable, worldwide, royalty-free license to practice or have practiced any patent on an invention that is conceived or first reduced to practice under the contract, which is referred to as a subject invention.

In addition, the U.S. government may obtain additional rights if we do not elect to retain ownership of a subject invention or if we do not satisfy certain disclosure and patent prosecution obligations with respect to a subject invention. Furthermore, the government is entitled to march-in rights under our contract with BARDA. March-in rights permit the U.S. government to require that we grant a license to a subject invention to a third party if we have not taken effective steps to achieve practical application of the invention within a reasonable time; if such action is necessary to meet health and safety needs and/or requirements for public use that we are not meeting; or if we have not obtained from any exclusive licensee the required agreement for manufacturing such invention substantially in the United States or a waiver of this requirement.

Discuva Limited Acquisition

Share Purchase Agreement

On December 23, 2017, we entered into a share purchase agreement with the shareholders of Discuva, a private limited company organized under the laws of England and Wales pursuant to which we acquired all of the outstanding share capital of Discuva. Discuva was a discovery stage company with a bacterial genetics-based platform that facilitates the discovery and development of new mechanism antibiotics.

Under the terms of the share purchase agreement, we paid the Discuva shareholders a total upfront consideration comprised of (A) £5.0 million in cash plus an amount equal to the cash and cash equivalents of Discuva minus (i) indebtedness, (ii) any other liabilities of Discuva at the closing of the transaction that had arisen outside of the ordinary course of business and (iii) funds to be held in escrow and (B) £5.0 million of our ordinary shares, satisfied by the issue of 2,934,272 of our fully-paid, new ordinary shares at a price per share of £1.704.

In addition, the Discuva shareholders will be entitled to receive contingent payments from us based on (i) the receipt of potential research and development tax credits to which Discuva may be entitled for the period from April 1, 2015 to the date of the share purchase agreement and (ii) approximately one-half of the economic benefit from any amounts received in connection with certain payments made to us under an existing collaboration agreement between Discuva and F. Hoffman - La Roche Limited, or Roche. Separately, certain employees, former employees and former directors of Discuva are eligible for further payments from Discuva of up to £7.9 million based on specified development and clinical milestones related to proprietary product candidates developed under the platform.

Under the terms of the share purchase agreement, the Discuva shareholders agreed, subject to certain limited exceptions, to a lock-up period lasting until September 23, 2018 during which they will not sell, transfer or otherwise dispose of, or create any encumbrance over any of, the ordinary shares received as consideration. Following the lock-up period, each of the Discuva shareholders has agreed for a period of twelve months to only dispose of their ordinary shares in accordance with certain orderly market undertaking provisions specified in the share purchase agreement, which, among other things, limit the number of ordinary shares each seller may dispose of during such twelve-month period.

The share purchase agreement also prohibits the selling Discuva shareholders from engaging in certain business activities which are competitive with the business of Discuva at the time of the transaction and from soliciting customers or hiring employees of Discuva, subject to certain limited exceptions as set forth in the agreement, for a period of two years following the date of the agreement.

The share purchase agreement contained customary representations and warranties that ourselves and the selling Discuva shareholders made to each other as of specific dates. The assertions embodied in those representations and warranties were made solely for purposes of the share purchase agreement and may be subject to important qualifications and limitations agreed to by the us and the Discuva shareholders in connection with negotiating its terms. Moreover, the representations and warranties may be subject to a contractual standard of materiality that may be different from what may be viewed as material to shareholders or may have been used for the purpose of allocating risk between us and the Discuva shareholders rather than establishing matters as facts. For the foregoing reasons, no person should rely on such representations and warranties as statements of factual information at the time they were made or otherwise.

Eurofarma Laboratórios S.A.

On December 21, 2017, we entered into an exclusive license and commercialization agreement with Eurofarma, pursuant to which we granted Eurofarma the exclusive right to commercialize ridinilazole in Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Dominican Republic, Uruguay and Venezuela, which we refer to as the licensed territory. We have retained commercialization rights in the rest of the world.

Financial terms

Under the terms of the license agreement, we received an upfront payment of $2.5 million and are entitled to receive an additional $3.75 million in development milestones upon the achievement of staged patient enrollment targets in the licensed territory in one of our two planned Phase 3 clinical trials of ridinilazole. We are eligible to receive up to $21.5 million in development, commercial and sales milestones when cumulative net sales equal or exceed $100.0 million in the licensed territory. Each subsequent achievement of an additional $100.0 million in cumulative net sales will result in us receiving additional milestone payments, which, when combined with anticipated product supply transfer payments from Eurofarma paid to us in connection with a commercial supply agreement to be entered into between the two parties, will provide payments estimated to range from a mid- to high-teens percentage of cumulative net sales in the licensed territory. We estimate such product supply transfer payments from Eurofarma will range from a high single-digit to low double-digit percentage of cumulative net sales in the licensed territory.

Regulatory and Commercial

Under the license agreement, Eurofarma is responsible for all costs related to obtaining regulatory approval of ridinilazole in the licensed territory and is obligated to use commercially reasonable efforts to file applications for regulatory approval in specified countries in the licensed territory within a specified time period after we have filed an application for regulatory approval, or obtained regulatory approval, for ridinilazole in a jurisdiction where we retain commercial rights. To assist Eurofarma in obtaining regulatory approvals in the licensed territory, we are responsible, at our expense, to conduct such additional chemistry, manufacturing and control studies as may be required by regulatory authorities in countries within the licensed territory. We retain sole responsibility for the clinical development of ridinilazole in all countries and are responsible for all costs related to obtaining regulatory approval for ridinilazole outside of the licensed territory.

We are obligated to use commercially reasonable efforts to supply or cause to be supplied to Eurofarma sufficient commercial supply of ridinilazole, and Eurofarma has agreed to purchase its supply of ridinilazole exclusively from us. If we are unable to supply Eurofarma with commercial supply of ridinilazole during the term of the agreement, we are obligated to transfer to Eurofarma or its third-party suppliers' know-how that would be needed for Eurofarma or its third-party suppliers to manufacture the product for commercial sale in the licensed territory.

Termination

Unless earlier terminated, the license and commercialization agreement will expire upon the latest of (i) the earliest date on which there are no longer any valid patent claims covering ridinilazole in the licensed territory, (ii) the earliest date on which there is no longer regulatory exclusivity for ridinilazole in the licensed territory or (iii) ten years from the date of the first commercial sale of ridinilazole in the licensed territory. The license agreement may be terminated by Eurofarma in its entirety upon six months' prior written notice any time after Eurofarma has paid to us the specified development milestones related to our planned Phase 3 clinical trials of ridinilazole. Either party may, subject to a cure period, terminate the license agreement in the event of the other party's uncured material breach. Eurofarma may also terminate the license agreement under specified circumstances relating to the safety, efficacy or regulatory approvability of ridinilazole or under specified circumstances if Eurofarma determines certain commercialization plans are no longer economically viable.

Each of the parties has granted to the other a right of reference to copy and use all information included in any regulatory filing in connection with such other party's development, manufacture and commercialization, as applicable, of ridinilazole in the territories where such other party retains such rights. In addition, during the term of the license agreement, except in certain limited circumstances, Eurofarma has agreed not to commercialize any competing antibiotic treatments actively marketed for the treatment of CDI in the licensed territory or our territory without our prior written consent. Similarly, we have agreed not to commercialize any antibiotic treatments competing with the licensed products which would be actively marketed for the treatment of CDI in the licensed territory.

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 technologies, knowledge, experience and scientific resources provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions, government agencies and private and public research institutions. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future.

Many of our competitors may have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain marketing approvals for their products more rapidly than we obtain approval for ours. In addition, our ability to compete may be affected because in some cases insurers or other third-party payors seek to encourage the use of generic products. This may have the effect of making branded products less attractive, from a cost perspective, to buyers.

The key competitive factors affecting the success of our product candidates are likely to be their efficacy, safety, convenience, price and the availability of coverage and reimbursement from government and other third-party payors.

The competition for ezutromid and ridinilazole includes the following:

Ezutromid

There is currently no approved therapy for the treatment of DMD applicable to all DMD patients that seeks to alter, slow or stop the progression of the disease. Corticosteroids, such as prednisolone and deflazacort, are the current standard of care for DMD patients, although these are symptomatic treatments that do not address the underlying cause of DMD, and their use can be associated with severe side effects and concerns over weight gain. Other companies are developing alternative therapeutic approaches to the treatment of DMD, a number of which are outlined below.

Exon Skipping. Sarepta is developing treatments for DMD based on exon-skipping approaches. Exons are organic molecules known as nucleotides within the DNA strand that the cellular machinery translates to make full-length, functional protein. In a sub-population of DMD patients, synthesis of the dystrophin protein is disrupted because of mutations that may be due, among other things, to deleted exons. Exon-skipping technology seeks to allow the production of a shorter but still functional dystrophin protein and take the disease phenotype to that of the milder form of muscular dystrophy called Becker muscular dystrophy, or BMD. Sarepta is developing treatments for DMD based on exon-skipping approaches and received accelerated approval from the FDA for eteplirsen in September 2016. Eteplirsen targets exon 51 and targets approximately 13% of all DMD patients. Sarepta is also developing other exon-skipping therapies to treat other genetic mutations. Sarepta also has product candidates in clinical trials that are targeting exon 44, which is applicable to approximately 6% of all DMD patients, exon 45, which is applicable to approximately 8% of all DMD patients, and exon 53, which is applicable to approximately 6% of all DMD patients. According to an article published in 2009 in the peer reviewed journal *Human Mutation*, skipping of the ten most common exons would treat in the aggregate approximately 41% of all DMD patients. We believe that there are exon-skipping therapies currently in clinical development to address four of these exons and that skipping of these exons would treat in the aggregate less than one-third of all DMD patients. Other companies developing therapies targeting exon mutations include Nippon Shinyaku Co., Ltd., which is conducting Phase 2 clinical trials in Japan and the United States and Wave Life Sciences Ltd., which commenced a Phase 1 clinical trial in November 2017.

Nonsense mutations. PTC Therapeutics, Inc., or PTC, is developing ataluren (Translarna™). Ataluren is a small molecule that enables formation of functional dystrophin in DMD patients with nonsense mutations. DMD caused by nonsense mutations affects approximately 13% of all DMD patients. The European Commission has granted conditional approval for ataluren in Europe, and PTC is commercializing ataluren in several European countries. In October 2015, PTC announced a Phase 3 confirmatory clinical trial of ataluren did not achieve its primary endpoint, and in February 2016, PTC announced its receipt of a "refuse to file" letter from the FDA indicating that PTC's NDA for ataluren was not sufficiently complete to permit a substantive review. In March 2017, PTC announced the filing over protest of the NDA for ataluren, which allows PTC to have its NDA filed and reviewed following receipt of a refuse to file determination. In February 2018, PTC announced the FDA had denied PTC's appeal of the "complete response" letter in relation to the NDA for ataluren.

Other DMD approaches. A number of other companies are pursuing alternative therapeutic approaches for the treatment of DMD. Tivorsan Pharmaceuticals is developing a recombinant form of biglycan, a protein that is naturally produced in the body and regulates production of utrophin in developing muscle, which is currently in preclinical development. Pfizer, Inc., or Pfizer, and Roche, are pursuing an approach based on muscle tissue growth through myostatin inhibition. Pfizer is developing the myostatin inhibitor PF-06252616 (domagrozumab) and initiated a Phase 2 clinical trial in patients with DMD in December 2014. Roche is developing BMS-986089, a myostatin inhibitor that is currently in Phase 1/2 clinical development;Roche acquired BMS-986089 from the Bristol-Myers Squibb Company in April 2017. Santhera Pharmaceuticals Holding AG, or Santhera, completed a Phase 3 clinical trial of its product candidate, idebenone (Raxone®/ Catena®), in 2014 and reported that idebenone delayed deterioration in respiratory function. Santhera filed a MAA with the EMA in 2016 and in September 2017 received a negative opinion from the Committee for Medicinal Products for Human Use, or CHMP; on appeal, CHMP maintained its negative opinion. Santhera is conducting a confirmatory Phase 3 trial of idebenone in DMD patients who are receiving concomitant corticosteroids. Catabasis Pharmaceuticals, Inc., or Catabasis, is developing edasalonexent as a non-steroidal, anti-inflammatory drug. Catabasis reported top-line results in January 2017 from a Phase 1/2 clinical trial in which edasalonexent did not meet its primary endpoint; Catabasis reported positive results from an open-label extension of this Phase 1/2 clinical trial in October 2017 and February 2018, and it intends to progress edasalonexent into a Phase 3 clinical trial during the first half of 2018. Akashi Therapeutics, or Akashi, is developing HT-100, an anti-inflammatory and anti-fibrotic small molecule that aims to reduce fibrosis and inflammation. In February 2016, Akashi announced that dosing and enrollment into a Phase 1b/2a clinical trial of HT-100 was suspended due to a fatality in the trial. A number of companies are targeting gene therapy based approaches for DMD which has the potential to address the genetic cause of DMD by using an adeno-associated virus to deliver a shortened, yet functional, version of the dystrophin gene to a DMD patient and change the disease phenotype to BMD. Companies with gene therapy based approaches include Asklepios Biopharmaceuticals, Inc., which is developing biostrophin and is currently in Phase 1 clinical development, and Solid Biosciences, or Solid, which commenced a Phase 1/2 adaptive clinical trial in patients with DMD in November 2017; in March 2018, Solid announced the Phase 1/2 clinical trial had been placed on clinical hold by the FDA following a serious adverse event in the trial.

Ridinilazole

Several pharmaceutical and biotechnology companies have established themselves in the market for the treatment of CDI, and several additional companies are developing products for the treatment of CDI. We expect that these products will compete with ridinilazole.

Antibiotics. Currently the mostly commonly used treatments for CDI are the broad spectrum antibiotics vancomycin and metronidazole, both of which are available in generic form in the United States. Generic antibiotic therapies typically are sold at lower prices than branded antibiotics and generally are preferred by managed care providers of health services. The antibiotic fidaxomicin (Dificid™ in the United States, Dificlir™ in Europe) is approved for the treatment of CDI in the United States and the European Union. Fidaxomicin was originally developed by Optimer Pharmaceuticals, Inc., which was later acquired by Cubist Pharmaceuticals, Inc., or Cubist. Cubist was recently acquired by Merck & Co., Inc., or Merck. Other antibiotics in late-stage clinical trials include cadazolid, which was originally being developed by Actelion Pharmaceuticals Limited, or Actelion, before global rights were acquired by Johnson and Johnson in January 2017. In June 2017, Actelion reported that cadazolid missed the primary endpoint of non-inferiority to vancomycin on clinical cure in one Phase 3 clinical trial, but achieved the same primary endpoint in a second Phase 3 clinical trial.

Other CDI approaches. A number of other approaches for the treatment of CDI are in development. Merck is developing the monoclonal antibodies bezlotoxumab (Zinplava™), which received approval from the FDA in October 2016. Bezlotoxumab is an antibody that neutralizes certain toxins that are produced by *C. difficile* bacteria and indicated to reduce recurrence for CDI in patients who are receiving antibacterial drug treatment and are at high risk of disease recurrence. Merck has also filed a MAA with the EMA, and the CHMP of the EMA issued an opinion recommending approval of bezlotoxumab in November 2016. Sanofi Pasteur SA is developing the vaccine ACAM-CDIFF for primary prevention of CDI. ACAM-CDIFF is likely to be used only in high-risk patients given the difficulty of administering a vaccine to a broad population. In December 2017, Sanofi announced it was ending development stating there was a low probability of the trial meeting its primary endpoint following a review of interim data. Pfizer is developing the vaccine PF-06425090 that aims to induce a functional antibody response to neutralize the *C difficile* bacterial toxins. Pfizer reported top-line Phase 2 results in January 2017 and commenced enrollment into a Phase 3 trial in March 2017.

Fecal biotherapy aims to recolonize the bacteria that comprise the natural gut flora and would also be adjunctive therapy to antibiotics. Fecal biotherapy approaches in development include SER-109 and SER-262, which are being developed by Seres Therapeutics Inc., formerly Seres Health, Inc., and RBX2660, which is being developed by Rebiotix Inc. Seres reported interim results from a Phase 2 trial in 2016 in which SER-109 missed its primary efficacy endpoint; a Phase 3 clinical trial of SER-109 was commenced in June 2017. SER-262 is currently being evaluated in a Phase 1b clinical trial in CDI patients. In April 2017, Rebiotix reported positive top-line data from an open-label Phase 2 clinical trial of RBX2660 and in August 2017, enrolled the first patient into a Phase 3 clinical trial. Synthetic Biologics, Inc., is developing ribaxamase, an oral enzyme designed to degrade certain IV beta-lactam antibiotics within the GI tract to preserve the natural balance of the microbiome and reduce the risk of colonization by bacterial including *C. difficile*. In January 2017, it was reported that ribaxamase met its primary endpoint in a Phase 2b clinical trial; Phase 3 clinical trials are currently planned to be initiated in 2019.

Manufacturing

We do not own or operate, and currently have no plans to establish, manufacturing facilities for the production of clinical or commercial quantities of ezutromid, ridinilazole or for the other compounds that we are evaluating in our DMD or infectious diseases programs. We currently rely, and expect to continue to rely, on third parties for the manufacture of our product candidates and any products that we may develop.

We currently engage a single, third-party manufacturer to provide clinical material of the active pharmaceutical ingredient, or API, and fill and finish services for the final drug product of the F3 formulation of ezutromid that is being used in our ongoing Phase 2 proof of concept clinical trial called PhaseOut DMD. We are engaged with a different drug product manufacturer to provide bulk drug product of the F6 formulation of ezutromid. A different third party manufacturer provides fill and finish services to supply the final drug product of the F6 formulation of ezutromid that is being evaluated in PhaseOut DMD. We are engaged with a different third-party vendor to provide labeling, packaging and distributions services of the F3 and F6 formulations. We are engaged with another third-party manufacturer to provide clinical material of the API of ridinilazole with a different supplier responsible for fill and finish services to supply the final drug product for use in the future Phase 3 clinical trials. We believe these suppliers are suitable for commercial manufacture. We expect to use the same third-party vendor for clinical packaging, labeling and distribution of the finalized ridinilazole drug product that we use for ezutromid. We obtain the supplies of our API and drug products from these manufacturers pursuant to agreements that include specific supply timelines and volume expectations.

We obtain the supplies of our product candidates from these manufacturers under master services contracts and specific work orders. However, we do not have long-term supply arrangements in place. We do not currently have arrangements in place for redundant supply or a second source for API for ezutromid. If any of our current manufacturers should become unavailable to us for any reason, we believe that there are a number of potential replacements, although we might incur some delay in identifying and qualifying such replacements.

All of our product candidates are organic compounds of low molecular weight and are referred to as small molecules. We have selected these compounds based on their potential efficacy and safety, although they are also associated with reasonable cost of goods, ready availability of starting materials and ease of synthesis. We believe that the chemistry for ezutromid and ridinilazole is amenable to scale-up and does not currently require unusual equipment in the manufacturing process. We expect to continue to develop product candidates that can be produced cost-effectively at contract manufacturing facilities.

Intellectual Property

Our success depends in large part on our ability to obtain and maintain proprietary protection for our product candidates, technology and know-how, to operate without infringing the proprietary rights of others and to prevent others from infringing our proprietary rights. We strive to protect the proprietary technology that we believe is important to our business by, among other methods, seeking and maintaining patents, where available, that are intended to cover our product candidates, compositions and formulations, their methods of use and processes for their manufacture and any other inventions that are commercially important to the development of our business. We also rely on trade secrets, know-how, continuing technological innovation and in-licensing opportunities to develop and maintain our proprietary and competitive position.

As of March 15, 2018, we owned or exclusively licensed a total of nine U.S. patents, one U.S. patent application, six European patents and two European patent applications, including original filings, continuations and divisional applications, as well as numerous other foreign counterparts to these U.S. and European patents and patent applications.

Our DMD patent portfolio includes the following granted patents and patent applications that we own or exclusively license:

- two granted U.S. patents covering the composition of matter of ezutromid and combinations of ezutromid with ancillary therapeutic agents, which are scheduled to expire in 2029 and 2030, respectively;
- a granted U.S. patent covering methods of manufacture of ezutromid, which is scheduled to expire in 2029;
- a granted U.S. patent covering formulations of ezutromid, which is scheduled to expire in 2033;
- a granted European patent covering the composition of matter of ezutromid that cleared the opposition period in April 2015 with no opposition filed against it at the European Patent Office, and which is scheduled to expire in 2027;
- a granted European patent covering formulations of ezutromid, which is scheduled to expire in 2033;
- a granted European patent covering combinations of ezutromid with ancillary therapeutic agents, which is scheduled to expire in 2028; and
- a number of pending patent applications covering formulations of ezutromid, further methods of use of ezutromid and the composition of matter of second generation utrophin modulator candidates.

Our CDI patent portfolio includes the following granted patents and patent applications that we own or exclusively license:

- a granted U.S. patent covering the use of ridinilazole in the treatment of CDI, which is scheduled to expire in 2029;
- a corresponding granted European patent covering the use of ridinilazole in the treatment of CDI, which is scheduled to expire in 2029;
- a granted U.S. patent covering hydrates of ridinilazole, which is scheduled to expire in 2029;
- a granted European divisional patent covering hydrates of ridinilazole and pharmaceutical compositions comprising ridinilazole;
- a further granted U.S. patent covering the use of ridinilazole in the treatment of CDI, which is scheduled to expire in 2029; and
- two granted U.S. patents, a granted European patent and a pending European divisional application covering second generation agents for the treatment of CDI, which are scheduled to expire in 2031.

While patent protection is not available for composition of matter claims that only recite the API for ridinilazole, protection may be available for the pharmaceutical compositions comprising ridinilazole as well as other forms thereof such as hydrates (and indeed claims have been secured for the latter in both Europe and the United States).

As of March 15, 2018, we owned a total of two U.S. patents and two European patents and a number of pending patent applications, including original filings, continuations and divisional applications, as well as numerous other foreign counterparts to these U.S. and European patents and patent applications, covering the genetics-based technology platform acquired in connection with the Discuva acquisition. We also have a number of pending patent applications covering potential antibiotic compounds that are being identified using our genetics-based platform.

The term of individual patents depends upon the legal term for patents in the countries in which they are obtained. In most countries, including the United States, the patent term is 20 years from the filing date of a non-provisional patent application. In the United States, a patent's term may, in certain cases, be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the U.S. Patent and Trademark Office, or the USPTO, in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier filed patent.

The term of a U.S. patent that covers a drug, biological product or medical device approved pursuant to a pre-market approval, or PMA, may also be eligible for patent term extension when FDA approval is granted, provided that certain statutory and regulatory requirements are met. The length of the patent term extension is related to the length of time the drug is under regulatory review while the patent is in force. The Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, permits a patent term extension of up to five years beyond the expiration date set for the patent. Patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent applicable to each regulatory review period may be granted an extension and only those claims reading on the approved drug may be extended. Similar provisions are available in Europe and certain other foreign jurisdictions to extend the term of a patent that covers an approved drug, provided that statutory and regulatory requirements are met. Thus, in the future, if and when our product candidates receive approval by the FDA or foreign regulatory authorities, we expect to apply for patent term extensions on issued patents covering those products, depending upon the length of the clinical trials for each drug and other factors. The expiration dates of our patents and patent applications referred to above are without regard to potential patent term extension or other market exclusivity that may be available to us.

In addition to patents, we may rely, in some circumstances, on trade secrets to protect our technology and maintain our competitive position. However, trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by confidentiality agreements with our employees, corporate and scientific collaborators, consultants, scientific advisors, contractors and other third parties. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems.

Sales and Marketing

In light of our stage of development, we have not yet established a sales and marketing organization or distribution capabilities. Under the terms of our exclusive license and collaboration agreement with Sarepta, we have granted Sarepta the exclusive right to commercialize products in our utrophin modulator pipeline, including our lead candidate ezutromid, in the European Union, Switzerland, Norway, Iceland, Turkey and the Commonwealth of Independent States, which we refer to as the licensed territory. We also granted Sarepta an option to expand the licensed territory to include specified countries in Central and South America. We have retained commercialization rights in the rest of the world including the United States.

If ezutromid receives marketing approval, we intend to commercialize it initially in the United States with our own focused, specialized sales force that we plan to establish. We believe that medical specialists treating DMD are sufficiently concentrated that we will be able to effectively promote ezutromid with a targeted sales team in the United States. We also believe that our relationships with patient advocacy groups will strengthen our ability to market ezutromid. Outside of the United States in the territories where we currently retain commercialization rights, we plan to evaluate the relative merits of marketing ezutromid ourselves and utilizing collaboration, distribution and other marketing arrangements with third parties to commercialize ezutromid.

We continue to evaluate our options for maximizing the commercial opportunity for ridinilazole. Under the terms of our exclusive license and commercialization agreement with Eurofarma, we have granted Eurofarma the exclusive right to commercialize ridinilazole in certain countries in South America, Central America and the Caribbean. We have retained commercialization rights in all other territories, including in the United States and Europe.

We may determine to commercialize the product directly in the United States and Europe with our own specialized sales force or seek third-party collaborators for the commercialization of ridinilazole. We intend to evaluate the relative merits of retaining commercialization rights for ourselves or entering into collaboration arrangements with third parties depending on factors such as the anticipated development costs required to achieve marketing approval, the sales and marketing resources required in each territory in which we receive approval, the relative size of the market opportunity in such territory, the particular expertise of the third party and the proposed financial terms of the arrangement.

We are also in the process of building key capabilities, such as marketing, market access, sales management and medical affairs, to implement marketing and medical strategies for any products that we market through our own sales organization and to oversee and support our sales force. The responsibilities of the marketing organization would include developing educational initiatives with respect to approved products and expanding relationships with thought leaders in relevant fields of medicine.

Government Regulation

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, testing, manufacture, quality control, approval, packaging, storage, record keeping, labeling, pricing, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, and import and export of pharmaceutical products. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with compliance with applicable statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources.

Review and Approval of Drugs in the United States

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and implementing regulations. The failure to comply with the FDCA and applicable U.S. requirements at any time during the product development process, approval process or after approval may subject an applicant or sponsor to a variety of administrative or judicial sanctions, including refusal by the FDA to approve pending applications, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters and other types of letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement of profits, or civil or criminal investigations and penalties brought by the FDA and the Department of Justice, or DOJ, or other federal and state governmental entities.

An applicant seeking approval to market and distribute a new drug product in the United States must typically undertake the following:

- completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's good laboratory practice, or GLP, regulations;
- submission to the FDA of an IND, which must take effect before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, representing each clinical site before each clinical trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with current good clinical practices, or GCP, to establish the safety and efficacy of the proposed drug product for each indication;
- preparation and submission to the FDA of a new drug application, or NDA;
- review of the product candidate by an FDA advisory committee, where appropriate or if applicable;
- satisfactory completion of one or more FDA inspections of the manufacturing facility or facilities at which the product, or components thereof, are produced to assess compliance with current Good Manufacturing Practices, or cGMP, requirements and to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity;
- satisfactory completion of FDA audits of clinical trial sites to assure compliance with GCPs and the integrity of the clinical data;
- payment of user fees and securing FDA approval of the NDA; and
- compliance with any post-approval requirements, including Risk Evaluation and Mitigation Strategies, or REMS, where applicable, and any post-approval studies required by the FDA.

Preclinical Studies

Before an applicant begins testing a compound with potential therapeutic value in humans, the product candidate enters the preclinical testing stage. Preclinical studies include laboratory evaluation of the purity and stability of the active pharmaceutical ingredient, or API, and the formulated drug or drug product, as well as *in vitro* and animal studies to assess the safety and activity of the drug for initial testing in humans and to establish a rationale for therapeutic use. The conduct of preclinical studies is subject to federal regulations and requirements, including GLP regulations. The results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and plans for clinical trials, among other things, are submitted to the FDA as part of an IND. Some long-term preclinical testing, such as animal tests of reproductive adverse events and carcinogenicity, may continue after the IND is submitted.

Companies usually must complete some long-term preclinical testing, such as animal tests of reproductive adverse events and carcinogenicity, and must also develop additional information about the chemistry and physical characteristics of the investigational product and finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the candidate product and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the candidate product does not undergo unacceptable deterioration over its shelf life.

The IND and IRB Processes

An IND is an exemption from the FDCA that allows an unapproved drug to be shipped in interstate commerce for use in an investigational clinical trial and a request for FDA authorization to administer an investigational drug to humans. Such authorization must be secured prior to interstate shipment and administration of any new drug that is not the subject of an approved NDA. In support of a request for an IND, applicants must submit a protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and plans for clinical trials, among other things, are submitted to the FDA as part of an IND. The FDA requires a 30-day waiting period after the filing of each IND before clinical trials may begin. This waiting period is designed to allow the FDA to review the IND to determine whether human research subjects will be exposed to unreasonable health risks. At any time during this 30-day period, the FDA may raise concerns or questions about the conduct of the trials as outlined in the IND and impose a clinical hold. In this case, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can begin.

Following commencement of a clinical trial under an IND, the FDA may also place a clinical hold or partial clinical hold on that trial. A clinical hold is an order issued by the FDA to the sponsor to delay a proposed clinical investigation or to suspend an ongoing investigation. A partial clinical hold is a delay or suspension of only part of the clinical work requested under the IND. For example, a specific protocol or part of a protocol is not allowed to proceed, while other protocols may do so. No more than 30 days after imposition of a clinical hold or partial clinical hold, the FDA will provide the sponsor a written explanation of the basis for the hold. Following issuance of a clinical hold or partial clinical hold, an investigation may only resume after the FDA has notified the sponsor that the investigation may proceed. The FDA will base that determination on information provided by the sponsor correcting the deficiencies previously cited or otherwise satisfying the FDA that the investigation can proceed.

A sponsor may choose, but is not required, to conduct a foreign clinical study under an IND. When a foreign clinical study is conducted under an IND, all FDA IND requirements must be met unless waived. When the foreign clinical study is not conducted under an IND, the sponsor must ensure that the study complies with certain regulatory requirements of the FDA in order to use the study as support for an IND or application for marketing approval. Specifically, on April 28, 2008, the FDA amended its regulations governing the acceptance of foreign clinical studies not conducted under an investigational new drug application as support for an IND or a new drug application. The final rule provides that such studies must be conducted in accordance with good clinical practice, or GCP, including review and approval by an independent ethics committee, or IEC, and informed consent from subjects. The GCP requirements in the final rule encompass both ethical and data integrity standards for clinical studies. The FDA's regulations are intended to help ensure the protection of human subjects enrolled in non-IND foreign clinical studies, as well as the quality and integrity of the resulting data. They further help ensure that non-IND foreign studies are conducted in a manner comparable to that required for IND studies.

In addition to the foregoing IND requirements, an IRB representing each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and the IRB must conduct continuing review and reapprove the study at least annually. The IRB must review and approve, among other things, the study protocol and informed consent information to be provided to study subjects. An IRB must operate in compliance with FDA regulations. An IRB can suspend or terminate approval of a clinical trial at its institution, or an institution it represents, if the clinical trial is not being conducted in accordance with the IRB's requirements or if the product candidate has been associated with unexpected serious harm to patients.

Additionally, some trials are overseen by an independent group of qualified experts organized by the trial sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether or not a trial may move forward at designated check points based on access that only the group maintains to available data from the study. Suspension or termination of development during any phase of clinical trials can occur if it is determined that the participants or patients are being exposed to an unacceptable health risk. Other reasons for suspension or termination may be made by us based on evolving business objectives and/or competitive climate.

Information about clinical trials must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on its ClinicalTrials.gov website.

Human Clinical Trials in Support of an NDA

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include, among other things, the requirement that all research subjects provide their informed consent in writing before their participation in any clinical trial. Clinical trials are conducted under written study protocols detailing, among other things, the inclusion and exclusion criteria, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated.

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

Phase 1. The investigational drug is initially introduced into healthy human subjects or, in certain indications such as cancer, patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness and to determine optimal dosage.

Phase 2. The investigational drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.

Phase 3. The investigational drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product, and to provide adequate information for the labeling of the product. These clinical trials are commonly referred to as "pivotal" studies, which denotes a study that presents the data that the FDA or other relevant regulatory agency will use to determine whether or not to approve a product candidate.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. In addition, IND safety reports must be submitted to the FDA for any of the following: serious and unexpected suspected adverse reactions; findings from other studies or animal or *in vitro* testing that suggest a significant risk in humans exposed to the drug; and any clinically important increase in the case of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution, or an institution it represents, if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients. The FDA will typically inspect one or more clinical sites to assure compliance with GCP and the integrity of the clinical data submitted.

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

Submission of an NDA to the FDA

Assuming successful completion of required clinical testing and other requirements, the results of the preclinical studies and clinical trials, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the drug product for one or more indications. Under federal law, the submission of most applications is subject to an application user fee, which for federal fiscal year 2018 is $2,421,495 for an application requiring clinical data. The sponsor of an approved application is also subject to an annual program fee, which for fiscal year 2018 is $304,162. Certain exceptions and waivers are available for some of these fees, such as an exception from the application fee for products with orphan designation and a waiver for certain small businesses.

Following submission of an application, the FDA conducts a preliminary review of an NDA within 60 calendar days of its receipt and strives to inform the sponsor by the 74th day after the FDA's receipt of the submission whether the application is sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review.

The FDA has agreed to certain performance goals in the review process of NDAs. Under that agreement, 90% of applications seeking approval of new molecular entities, or NMEs, are meant to be reviewed within ten months from the date on which FDA accepts the NDA for filing, and 90% of applications for NMEs that have been designated for "priority review" are meant to be reviewed within six months of the filing date. For applications seeking approval of drugs that are not NMEs, the ten-month and six-month review periods run from the date that FDA receives the application. The review process may be extended by the FDA for three additional months to consider new information or clarification provided by the applicant to address an outstanding deficiency identified by the FDA following the original submission.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is or will be manufactured. These pre-approval inspections cover all facilities associated with an NDA submission, including drug component manufacturing (such as active pharmaceutical ingredients), finished drug product manufacturing, and control testing laboratories. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP. Under the FDA Reauthorization Act of 2017, the FDA must implement a protocol to expedite review of responses to inspection reports pertaining to certain applications, including applications for products in shortage or those for which approval is dependent on remediation of conditions identified in the inspection report.

In addition, as a condition of approval, the FDA may require an applicant to develop a REMS. REMS use risk minimization strategies beyond the professional labeling to ensure that the benefits of the product outweigh the potential risks. To determine whether a REMS is needed, the FDA will consider the size of the population likely to use the product, seriousness of the disease, expected benefit of the product, expected duration of treatment, seriousness of known or potential adverse events, and whether the product is a new molecular entity. REMS can include medication guides, physician communication plans for healthcare professionals, and elements to assure safe use, or ETASU. ETASU may include, but are not limited to,

special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring, and the use of patient registries. The FDA may require a REMS before approval or post-approval if it becomes aware of a serious risk associated with use of the product. The requirement for a REMS can materially affect the potential market and profitability of a product.

The FDA may refer an application for a novel drug to an advisory committee or explain why such referral was not made. Typically, an advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Fast Track, Breakthrough Therapy, Priority Review and Regenerative Advanced Therapy Designations

The FDA is authorized to designate certain products for expedited review if they are intended to address an unmet medical need in the treatment of a serious or life-threatening disease or condition. These programs are referred to as fast track designation, breakthrough therapy designation, priority review designation and regenerative advanced therapy designation.

Specifically, the FDA may designate a product for fast track review if it is intended, whether alone or in combination with one or more other products, for the treatment of a serious or life-threatening disease or condition, and it demonstrates the potential to address unmet medical needs for such a disease or condition. For fast track products, sponsors may have greater interactions with the FDA and the FDA may initiate review of sections of a fast track product's application before the application is complete. This rolling review may be available if the FDA determines, after preliminary evaluation of clinical data submitted by the sponsor, that a fast track product may be effective. The sponsor must also provide, and the FDA must approve, a schedule for the submission of the remaining information and the sponsor must pay applicable user fees. However, the FDA's time period goal for reviewing a fast track application does not begin until the last section of the application is submitted. In addition, the fast track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

Second, a product may be designated as a breakthrough therapy if it is intended, either alone or in combination with one or more other products, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The FDA may take certain actions with respect to breakthrough therapies, including holding meetings with the sponsor throughout the development process; providing timely advice to the product sponsor regarding development and approval; involving more senior staff in the review process; assigning a cross-disciplinary project lead for the review team; and taking other steps to design the clinical trials in an efficient manner.

Third, the FDA may designate a product for priority review if it is a product that treats a serious condition and, if approved, would provide a significant improvement in safety or effectiveness. The FDA determines, on a case- by-case basis, whether the proposed product represents a significant improvement when compared with other available therapies. Significant improvement may be illustrated by evidence of increased effectiveness in the treatment of a condition, elimination or substantial reduction of a treatment-limiting product reaction, documented enhancement of patient compliance that may lead to improvement in serious outcomes, and evidence of safety and effectiveness in a new subpopulation. A priority designation is intended to direct overall attention and resources to the evaluation of such applications, and to shorten the FDA's goal for taking action on a marketing application from ten months to six months.

Finally, with passage of the 21st Century Cures Act, or Cures Act, in December 2016, Congress authorized the FDA to accelerate review and approval of products designated as regenerative advanced therapies. A product is eligible for this designation if it is a regenerative medicine therapy that is intended to treat, modify, reverse or cure a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the drug has the potential to address unmet medical needs for such disease or condition. The benefits of a regenerative advanced therapy designation include early interactions with FDA to expedite development and review, benefits available to breakthrough therapies, potential eligibility for priority review and accelerated approval based on surrogate or intermediate endpoints.

Accelerated Approval Pathway

The FDA may grant accelerated approval to a drug for a serious or life-threatening condition that provides meaningful therapeutic advantage to patients over existing treatments based upon a determination that the drug has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. The FDA may also grant accelerated approval for such a drug when the product has an effect on an intermediate clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality, or IMM, and 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. Drugs granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval.

For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. An intermediate clinical endpoint is a measurement of a therapeutic effect that is considered reasonably likely to predict the clinical benefit of a drug, such as an effect on IMM. The FDA has limited experience with accelerated approvals based on intermediate clinical endpoints, but has indicated that such endpoints generally may support accelerated approval where the therapeutic effect measured by the endpoint is not itself a clinical benefit and basis for traditional approval, if there is a basis for concluding that the therapeutic effect is reasonably likely to predict the ultimate clinical benefit of a drug.

The accelerated approval pathway is most often used in settings in which the course of a disease is long and an extended period of time is required to measure the intended clinical benefit of a drug, even if the effect on the surrogate or intermediate clinical endpoint occurs rapidly. For example, accelerated approval has been used extensively in the development and approval of drugs for treatment of a variety of cancers in which the goal of therapy is generally to improve survival or decrease morbidity and the duration of the typical disease course requires lengthy and sometimes large clinical trials to demonstrate a clinical or survival benefit.

The accelerated approval pathway is usually contingent on a sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the drug's clinical benefit. As a result, a drug candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of Phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, or confirm a clinical benefit during post-marketing studies, would allow the FDA to withdraw the drug from the market on an expedited basis. All promotional materials for drug candidates approved under accelerated regulations are subject to prior review by the FDA.

Limited Population Antibacterial Drug Pathway

With passage of the Cures Act, Congress authorized the FDA to approve an antibacterial or antifungal drug, alone or in combination with one or more other drugs, as a "limited population drug." To qualify for this approval pathway, the drug must be intended to treat a serious or life-threatening infection in a limited population of patients with unmet needs; the standards for approval of drugs and biologics under the FDCA and the Public Health Service Act, or PHSA, must be satisfied; and the FDA must receive a written request from the sponsor to approve the drug as a limited population drug pursuant to this provision. The FDA's determination of safety and effectiveness for such a product must reflect the benefit-risk profile of such drug in the intended limited population, taking into account the severity, rarity, or prevalence of the infection the drug is intended to treat and the availability or lack of alternative treatment in such a limited population.

Any drug or biologic approved under this pathway must be labeled with the statement "Limited Population" in a prominent manner and adjacent to the proprietary name of the drug or biological product. The prescribing information must also state that the drug is indicated for use in a limited and specific population of patients and copies of all promotional materials relating to the drug must be submitted to the FDA at least 30 days prior to dissemination of the materials. If the FDA subsequently approves the drug for a broader indication, the agency may remove any post-marketing conditions, including requirements with respect to labeling and review of promotional materials applicable to the product. Nothing in this pathway to approval of a limited population drug prevents sponsors of such products from seeking designation or approval under other provisions of the FDCA, such as accelerated approval.

The FDA's Decision on an NDA

On the basis of the FDA's evaluation of the NDA and accompanying information, including the results of the inspection of the manufacturing facilities, the FDA may issue an approval letter or a complete response letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing or information in order for the FDA to reconsider the application. If and when those deficiencies have been addressed to the FDA's satisfaction in a resubmission of the NDA, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

If the FDA approves a product, it may limit the approved indications for use for the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess the drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, including REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs.

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.

Post-Approval Requirements

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to record keeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims, are subject to prior FDA review and approval. There also are continuing, annual program fee requirements for any marketed products, as well as new application fees for supplemental applications with clinical data.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, suspension of the approval, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates the marketing, labeling, advertising and promotion of prescription drug products placed on the market. regulation includes, among other things, standards and regulations for direct-to-consumer advertising, communications regarding unapproved uses, industry-sponsored scientific and educational activities, and promotional activities involving the Internet and social media. Promotional claims about a drug's safety or effectiveness are prohibited before the drug is approved. After approval, a drug product generally may not be promoted for uses that are not approved by the FDA, as reflected in the product's prescribing information. In the United States, health care professionals are generally permitted to prescribe drugs for such uses not described in the drug's labeling, known as off-label uses, because the FDA does not regulate the practice of medicine. However, FDA regulations impose rigorous restrictions on manufacturers' communications, prohibiting the promotion of off-label uses. It may be permissible, under very specific, narrow conditions, for a manufacturer to engage in nonpromotional, non-misleading communication regarding off-label information, such as distributing scientific or medical journal information.

If a company is found to have promoted off-label uses, it may become subject to adverse public relations and administrative and judicial enforcement by the FDA, the Department of Justice, or the Office of the Inspector General of the Department of Health and Human Services, as well as state authorities. This could subject a company to a range of penalties that could have a significant commercial impact, including civil and criminal fines and agreements that materially restrict the manner in which a company promotes or distributes drug products. The federal government has levied large civil and criminal fines against companies for alleged improper promotion, and has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed.

In addition, the distribution of prescription pharmaceutical products is subject to the Prescription Drug Marketing Act, or PDMA, and its implementing regulations, as well as the Drug Supply Chain Security Act, or DSCA, which regulate the distribution and tracing of prescription drug samples at the federal level, and set minimum standards for the regulation of distributors by the states. The PDMA, its implementing regulations and state laws limit the distribution of prescription pharmaceutical product samples, and the DSCA imposes requirements to ensure accountability in distribution and to identify and remove counterfeit and other illegitimate products from the market.

Section 505(b)(2) NDAs

NDAs for most new drug products are based on two full clinical studies which must contain substantial evidence of the safety and efficacy of the proposed new product for the proposed use. These applications are submitted under Section 505 (b)(1) of the FDCA. The FDA is, however, authorized to approve an alternative type of NDA under Section 505(b)(2) of the FDCA. This type of application allows the applicant to rely, in part, on the FDA's previous findings of safety and efficacy for a similar product, or published literature. Specifically, Section 505(b)(2) applies to NDAs for a drug for which the investigations made to show whether or not the drug is safe for use and effective in use and relied upon by the applicant for approval of the application "were not conducted by or for the applicant and for which the applicant has not obtained a right of reference or use from the person by or for whom the investigations were conducted."

Thus, Section 505(b)(2) authorizes the FDA to approve an NDA based on safety and effectiveness data that were not developed by the applicant. NDAs filed under Section 505(b)(2) may provide an alternate and potentially more expeditious pathway to FDA approval for new or improved formulations or new uses of previously approved products. If the 505(b)(2) applicant can establish that reliance on the FDA's previous approval is scientifically appropriate, the applicant may eliminate the need to conduct certain preclinical or clinical studies of the new product. The FDA may also require companies to perform additional studies or measurements to support the change from the approved product. The FDA may then approve the new drug candidate for all or some of the label indications for which the referenced product has been approved, as well as for any new indication sought by the Section 505(b)(2) applicant.

Abbreviated New Drug Applications for Generic Drugs

In 1984, with passage of the Hatch-Waxman Amendments to the FDCA, Congress authorized the FDA to approve generic drugs that are the same as drugs previously approved by the FDA under the NDA provisions of the statute. To obtain approval of a generic drug, an applicant must submit an abbreviated new drug application, or ANDA, to the agency. In support of such applications, a generic manufacturer may rely on the preclinical and clinical testing previously conducted for a drug product previously approved under an NDA, known as the reference listed drug, or RLD.

Specifically, in order for an ANDA to be approved, the FDA must find that the generic version is identical to the RLD with respect to the active ingredients, the route of administration, the dosage form, and the strength of the drug. At the same time, the FDA must also determine that the generic drug is "bioequivalent" to the innovator drug. Under the statute, a generic drug is bioequivalent to a RLD if "the rate and extent of absorption of the drug do not show a significant difference from the rate and extent of absorption of the listed drug." Upon approval of an ANDA, the FDA indicates whether the generic product is "therapeutically equivalent" to the RLD in its publication "Approved Drug Products with Therapeutic Equivalence Evaluations," also referred to as the "Orange Book." Physicians and pharmacists consider a therapeutic equivalent generic drug to be fully substitutable for the RLD. In addition, by operation of certain state laws and numerous health insurance programs, the FDA's designation of therapeutic equivalence often results in substitution of the generic drug without the knowledge or consent of either the prescribing physician or patient.

Under the Hatch-Waxman Amendments, the FDA may not approve an ANDA until any applicable period of non-patent exclusivity for the RLD has expired. The FDCA provides a period of five years of non-patent data exclusivity for a new drug containing a new chemical entity. A new chemical entity is a drug that contains no active moiety that has previously been approved by the FDA in any other NDA. An active moiety is the molecule or ion responsible for the physiological or pharmacological action of the drug substance. In cases where such exclusivity has been granted, an ANDA may not be filed with the FDA until the expiration of five years unless the submission is accompanied by a Paragraph IV certification, in which case the applicant may submit its application four years following the original product approval. The FDCA also provides for a period of three years of exclusivity if the NDA includes reports of one or more new clinical investigations, other than bioavailability or bioequivalence studies, that were conducted by or for the applicant and are essential to the approval of the application. This three-year exclusivity period often protects changes to a previously approved drug product, such as a new dosage form, route of administration, combination or indication. Three-year exclusivity would be available for a drug product that contains a previously approved active moiety, provided the statutory requirement for a new clinical investigation is satisfied. Unlike five-year NCE exclusivity, an award of three-year exclusivity does not block the FDA from accepting ANDAs seeking approval for generic versions of the drug as of the date of approval of the original drug product. The FDA typically makes decisions about awards of data exclusivity shortly before a product is approved.

The FDA must establish a priority review track for certain generic drugs, requiring the FDA to review a drug application within eight (8) months for a drug that has three (3) or fewer approved drugs listed in the Orange Book and is no longer protected by any patent or regulatory exclusivities, or is on the FDA's drug shortage list. The new legislation also authorizes FDA to expedite review of ''competitor generic therapies'' or drugs with inadequate generic competition, including holding meetings with or providing advice to the drug sponsor prior to submission of the application.

Hatch-Waxman Patent Certification and the 30-Month Stay

Upon approval of an NDA or a supplement thereto, NDA sponsors are required to list with the FDA each patent with claims that cover the applicant's product or an approved method of using the product. Each of the patents listed by the NDA sponsor is published in the Orange Book. When an ANDA applicant files its application with the FDA, the applicant is required to certify to the FDA concerning any patents listed for the reference product in the Orange Book, except for patents covering methods of use for which the ANDA applicant is not seeking approval. To the extent that the Section 505(b)(2) applicant is relying on studies conducted for an already approved product, the applicant is required to certify to the FDA concerning any patents listed for the approved product in the Orange Book to the same extent that an ANDA applicant would.

Specifically, the applicant must certify with respect to each patent that:

- the required patent information has not been filed;
- the listed patent has expired;
- the listed patent has not expired, but will expire on a particular date and approval is sought after patent expiration; or
- the listed patent is invalid, unenforceable or will not be infringed by the new product.

A certification that the new product will not infringe the already approved product's listed patents or that such patents are invalid or unenforceable is called a "Paragraph IV certification." If the applicant does not challenge the listed patents or indicates that it is not seeking approval of a patented method of use, the ANDA application will not be approved until all the listed patents claiming the referenced product have expired (other than method of use patents involving indications for which the ANDA applicant is not seeking approval).

If the ANDA applicant has provided a Paragraph IV certification to the FDA, the applicant must also send notice of the Paragraph IV certification to the NDA and patent holders once the ANDA has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the Paragraph IV certification. The filing of a patent infringement lawsuit within 45 days after the receipt of a Paragraph IV certification automatically prevents the FDA from approving the ANDA until the earlier of 30 months after the receipt of the Paragraph IV notice, expiration of the patent or a decision in the infringement case that is favorable to the ANDA applicant.

To the extent that the Section 505(b)(2) applicant is relying on studies conducted for an already approved product, the applicant is required to certify to the FDA concerning any patents listed for the approved product in the Orange Book to the same extent that an ANDA applicant would. As a result, approval of a Section 505(b)(2) NDA can be stalled until all the listed patents claiming the referenced product have expired, until any non-patent exclusivity, such as exclusivity for obtaining approval of a new chemical entity, listed in the Orange Book for the referenced product has expired, and, in the case of a Paragraph IV certification and subsequent patent infringement suit, until the earlier of 30 months, settlement of the lawsuit or a decision in the infringement case that is favorable to the Section 505(b)(2) applicant.

Pediatric Studies and Exclusivity

Under the Pediatric Research Equity Act of 2003, an NDA or supplement thereto must contain data that are adequate to assess the safety and effectiveness of the drug 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. With enactment of the Food and Drug Administration Safety and Innovation Act, or FDASIA, in 2012, sponsors must also submit pediatric study plans prior to the assessment data. Those plans must contain an outline of the proposed pediatric study or studies the applicant plans to conduct, including study objectives and design, any deferral or waiver requests and other information required by regulation. The applicant, the FDA, and the FDA's internal review committee must then review the information submitted, consult with each other, and agree upon a final plan. The FDA or the applicant may request an amendment to the plan at any time.

For drugs intended to treat a serious or life-threatening disease or condition, the FDA must, upon the request of an applicant, meet to discuss preparation of the initial pediatric study plan or to discuss deferral or waiver of pediatric assessments. In addition, FDA will meet early in the development process to discuss pediatric study plans with sponsors and FDA must meet with sponsors by no later than the end-of-phase 1 meeting for serious or life-threatening diseases and by no later than ninety (90) days after FDA's receipt of the study plan.

The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. Additional requirements and procedures relating to deferral requests and requests for extension of deferrals are contained in FDASIA. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan designation.

The FDA Reauthorization Act of 2017 established new requirements to govern certain molecularly targeted cancer indications. Any company that submits an NDA three years after the date of enactment of that statute must submit pediatric assessments with the NDA if the drug is intended for the treatment of an adult cancer and is directed at a molecular target that FDA determines to be substantially relevant to the growth or progression of a pediatric cancer. The investigation must be designed to yield clinically meaningful pediatric study data regarding the dosing, safety and preliminary efficacy to inform pediatric labeling for the product.

Pediatric exclusivity is another type of non-patent marketing exclusivity in the United States and, if granted, provides for the attachment of an additional six months of marketing protection to the term of any existing regulatory exclusivity, including the non-patent and orphan exclusivity. This six-month exclusivity may be granted if an NDA sponsor submits pediatric data that fairly respond to a written request from the FDA for such data. The data do not need to show the product to be effective in the pediatric population studied; rather, if the clinical trial is deemed to fairly respond to the FDA's request, the additional protection is granted. If reports of requested pediatric studies are submitted to and accepted by the FDA within the statutory time limits, whatever statutory or regulatory periods of exclusivity or patent protection cover the product are extended by six months. This is not a patent term extension, but it effectively extends the regulatory period during which the FDA cannot approve another application.

Orphan Drug Designation and Exclusivity

The FDA has granted orphan drug designation to ezutromid for the treatment of DMD. Under the Orphan Drug Act, the FDA may designate a drug product as an "orphan drug" if it is intended to treat a rare disease or condition (generally meaning that it affects fewer than 200,000 individuals in the United States, or more in cases in which there is no reasonable expectation that the cost of developing and making a drug product available in the United States for treatment of the disease or condition will be recovered from sales of the product). A company must request orphan product designation before submitting an NDA. If the request is granted, the FDA will disclose the identity of the therapeutic agent and its potential use. Orphan product designation does not convey any advantage in or shorten the duration of the regulatory review and approval process, although it does convey certain advantages such as tax benefits and exemption from PDUFA application fee.

If a product with orphan status receives the first FDA approval for the disease or condition for which it has such designation or for a select indication or use within the rare disease or condition for which it was designated, the product generally will be receiving orphan product exclusivity. Orphan product exclusivity means that the FDA may not approve any other applications for the same product for the same indication for seven years, except in certain limited circumstances. Competitors may receive approval of different products for the indication for which the orphan product has exclusivity and may obtain approval for the same product but for a different indication. If a drug or drug product designated as an orphan product ultimately receives marketing approval for an indication broader than what was designated in its orphan product application, it may not be entitled to exclusivity.

Orphan drug exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same drug for the same condition is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand. This is the case despite an earlier court opinion holding that the Orphan Drug Act unambiguously required the FDA to recognize orphan exclusivity regardless of a showing of clinical superiority.

Rare Pediatric Disease Priority Review Voucher Program

With enactment of the FDASIA in 2012, Congress authorized the FDA to award priority review vouchers to sponsors of certain rare pediatric disease product applications that meet the criteria specified in the law. This provision is designed to encourage development of new drug and biological products for prevention and treatment of certain rare pediatric diseases. Specifically, under this program, a sponsor who receives an approval for a drug or biologic for a "rare pediatric disease" may qualify for a voucher that can be redeemed to receive a priority review of a subsequent marketing application for a different product. The sponsor of a rare pediatric disease drug product receiving a priority review voucher may transfer (including by sale) the voucher to another sponsor. The voucher may be further transferred any number of times before the voucher is used, as long as the sponsor making the transfer has not yet submitted the application.

For the purposes of this program, a "rare pediatric disease" is a (a) serious or life-threatening disease in which the serious or life-threatening manifestations primarily affect individuals aged from birth to 18 years, including age groups often called neonates, infants, children, and adolescents; and (b) rare disease or conditions within the meaning of the Orphan Drug Act. A sponsor may choose to request rare pediatric disease designation, but the designation process is entirely voluntary; requesting designation is not a prerequisite to requesting or receiving a priority review voucher. In addition, sponsors who choose not to submit a rare pediatric disease designation request may nonetheless receive a priority review voucher if they request such a voucher in their original marketing application and meet all of the eligibility criteria. Under the Cures Act, the Rare Pediatric Disease Priority Review Voucher program was reauthorized until 2020. However, if a drug is designated before October 1, 2020, it is eligible to receive a voucher if approved before October 2022.

GAIN Exclusivity for Antibiotics

The FDA has designated ridinilazole as a qualified infectious disease product, or QIDP, under the Generating Antibiotic Incentives Now Act, or GAIN Act. Congress passed this legislation to encourage the development of antibacterial and antifungal drug products that treat pathogens that cause serious and life-threatening infections. To that end, the GAIN Act grants an additional five years of exclusivity upon the approval of an NDA for a drug product designated by the FDA as a QIDP. Thus, for a QIDP, the periods of five-year new chemical entity exclusivity, three-year new clinical investigation exclusivity and seven-year orphan drug exclusivity, would become ten years, eight years and 12 years, respectively.

A QIDP is defined in the GAIN Act to mean "an antibacterial or antifungal drug for human use intended to treat serious or life-threatening infections, including those caused by—(1) an antibacterial or antifungal resistant pathogen, including novel or emerging infectious pathogens;" or (2) certain "qualifying pathogens." A "qualifying pathogen" is a pathogen that has the potential to pose a serious threat to public health (such as resistant gram positive pathogens, multi-drug resistant gram negative bacteria, multi-drug resistant tuberculosis and *Clostridium difficile*) and that is included in a list established and maintained by the FDA. A drug sponsor may request the FDA to designate its product as a QIDP any time before the submission of an NDA. The FDA must make a QIDP determination within 60 days of the designation request. A product designated as a QIDP will be granted priority review by FDA and can qualify for "fast track" status.

The additional five years of exclusivity under the GAIN Act for drug products designated by the FDA as QIDPs applies only to a drug that is first approved on or after July 9, 2012. Additionally, the five year exclusivity extension does not apply to: a supplement to an application under FDCA Section 505(b) for any QIDP for which an extension is in effect or has expired; a subsequent application filed with respect to a product approved by the FDA for a change that results in a new indication, route of administration, dosing schedule, dosage form, delivery system, delivery device or strength; or a product that does not meet the definition of a QIDP under Section 505(g) based upon its approved uses.

Patent Term Restoration and Extension

The term of a U.S. patent that covers a drug, biological product or medical device approved pursuant to a PMA may also be eligible for patent term extension when FDA approval is granted, provided that certain statutory and regulatory requirements are met. The length of the patent term extension is related to the length of time the drug is under regulatory review while the patent is in force. The Hatch-Waxman Act permits a patent term extension of up to five years beyond the expiration date set for the patent. Patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent applicable to each regulatory review period may be granted an extension and only those claims reading on the approved drug may be extended. Similar provisions are available in Europe and certain other foreign jurisdictions to extend the term of a patent that covers an approved drug, provided that statutory and regulatory requirements are met. The USPTO reviews and approves the application for any patent term extension or restoration in consultation with the FDA.

The 21st Century Cures Act

On December 13, 2016, President Obama signed the 21st Century Cures Act, or Cures Act, into law. The Cures Act is designed to modernize and personalize healthcare, spur innovation and research, and streamline the discovery and development of new therapies through increased federal funding of particular programs. It authorizes increased funding for the FDA to spend on innovation projects. The new law also amends the Public Health Service Act to reauthorize and expand funding for the National Institutes of Health. The Act establishes the NIH Innovation Fund to pay for the cost of development and implementation of a strategic plan, early stage investigators and research. It also charges NIH with leading and coordinating expanded pediatric research. Further, the Cures Act directs the Centers for Disease Control and Prevention to expand surveillance of neurological diseases.

With amendments to the FDCA and PHSA, Title III of the Cures Act seeks to accelerate the discovery, development, and delivery of new medicines and medical technologies. To that end, and among other provisions, the Cures Act reauthorizes the existing priority review voucher program for certain drugs intended to treat rare pediatric diseases until 2020; creates a new priority review voucher program for drug applications determined to be material national security threat medical countermeasure applications; revises the FDCA to streamline review of combination product applications; requires FDA to

evaluate the potential use of "real world evidence" to help support approval of new indications for approved drugs; provides a new "limited population" approval pathway for antibiotic and antifungal drugs intended to treat serious or life-threatening infections; and authorizes FDA to designate a drug as a "regenerative advanced therapy," thereby making it eligible for certain expedited review and approval designations.

Regulation Outside the United States

In order to market any product outside of the United States, a company must also comply with numerous and varying regulatory requirements of other countries and jurisdictions regarding quality, safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of drug products. Whether or not it obtains FDA approval for a product, the company would need to obtain the necessary approvals by the comparable foreign regulatory authorities before it can commence clinical trials or marketing of the product in those countries or jurisdictions. The approval process ultimately varies between countries and jurisdictions and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries and jurisdictions might differ from and be longer than that required to obtain FDA approval. Regulatory approval in one country or jurisdiction does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country or jurisdiction may negatively impact the regulatory process in others.

Regulation and Marketing Authorization in the European Union

Clinical Trial Approval

The Clinical Trials Directive 2001/20/EC, the Directive 2005/28/EC on Good Clinical Practice, or GCP, and the related national implementing provisions of the individual EU Member States govern the system for the approval of clinical trials in the EU. Under this system, an applicant must obtain prior approval from the competent national authority of the EU Member States in which the clinical trial is to be conducted. Furthermore, the applicant may only start a clinical trial at a specific study site after the competent ethics committee has issued a favorable opinion. The clinical trial application must be accompanied by, among other documents, an investigational medicinal product dossier (the Common Technical Document) with supporting information prescribed by Directive 2001/20/EC, Directive 2005/28/EC, where relevant the implementing national provisions of the individual EU Member States and further detailed in applicable guidance documents.

In April 2014, the new Clinical Trials Regulation, (EU) No 536/2014 (Clinical Trials Regulation) was adopted. The Regulation was published on June 16, 2014 but is not expected to apply until 2019. The Clinical Trials Regulation will be directly applicable in all the EU Member States, repealing the current Clinical Trials Directive 2001/20/EC and replacing any national legislation that was put in place to implement the Directive. Conduct of all clinical trials performed in the EU will continue to be bound by currently applicable provisions until the new Clinical Trials Regulation becomes applicable. The extent to which on-going clinical trials will be governed by the Clinical Trials Regulation will depend on when the Clinical Trials Regulation becomes applicable and on the duration of the individual clinical trial. If a clinical trial continues for more than three years from the day on which the Clinical Trials Regulation becomes applicable the Clinical Trials Regulation will at that time begin to apply to the clinical trial.

The new Clinical Trials Regulation aims to simplify and streamline the approval of clinical trials in the EU. The main characteristics of the regulation include: a streamlined application procedure via a single entry point, the "EU Portal and Database"; a single set of documents to be prepared and submitted for the application as well as simplified reporting procedures for clinical trial sponsors; and a harmonized procedure for the assessment of applications for clinical trials, which is divided in two parts. Part I is assessed by the appointed reporting Member State, whose assessment report is submitted for review by the sponsor and all other competent authorities of all EU Member States in which an application for authorization of a clinical trial has been submitted (Concerned Member States). Part II is assessed separately by each Concerned Member State. Strict deadlines have been established for the assessment of clinical trial applications. The role of the relevant ethics committees in the assessment procedure will continue to be governed by the national law of the Concerned Member State. However, overall related timelines will be defined by the Clinical Trials Regulation.

PRIME Designation in the EU

In March 2016, the European Medicines Agency, or EMA, launched an initiative to facilitate development of product candidates in indications, often rare, for which few or no therapies currently exist. The PRIority MEdicines, or PRIME, scheme is intended to encourage drug development in areas of unmet medical need and provides accelerated assessment of products representing substantial innovation reviewed under the centralized procedure. Products from small- and medium-sized enterprises, or SMEs, may qualify for earlier entry into the PRIME scheme than larger companies. Many benefits accrue to sponsors of product candidates with PRIME designation, including but not limited to, early and proactive regulatory dialogue with the EMA, frequent discussions on clinical trial designs and other development program elements, and accelerated marketing authorization application assessment once a dossier has been submitted. Importantly, a dedicated Agency contact and rapporteur from the Committee for Human Medicinal Products ('CHMP') or Committee for Advanced Therapies ('CAT') are appointed early in PRIME scheme facilitating increased understanding of the product at EMA's Committee level. A kick-off meeting initiates these relationships and includes a team of multidisciplinary experts at the EMA to provide guidance on the overall development and regulatory strategies.

Marketing Authorization

To obtain a marketing authorization for a product under EU regulatory systems, an applicant must submit an MAA either under a centralized procedure administered by the EMA, or one of the procedures administered by competent authorities in the EU Member States (decentralized procedure, national procedure or mutual recognition procedure). A marketing authorization may be granted only to an applicant established in the EU. Regulation (EC) No 1901/2006 provides that prior to obtaining a marketing authorization in the EU, applicants have to demonstrate compliance with all measures included in an EMA-approved Paediatric Investigation Plan, or PIP, covering all subsets of the pediatric population, unless the EMA has granted (1) a product-specific waiver, (2) a class waiver or (3) a deferral for one or more of the measures included in the PIP.

The centralized procedure provides for the grant of a single marketing authorization by the European Commission that is valid across the European Economic Area (i.e. the EU as well as Iceland, Liechtenstein and Norway). Pursuant to Regulation (EC) No 726/2004, the centralized procedure is compulsory for specific products, including for medicines produced by certain biotechnological processes, products designated as orphan medicinal products, ATMPs and products with a new active substance indicated for the treatment of certain diseases, including products for the treatment of cancer. For products with a new active substance indicated for the treatment of other diseases and products that are highly innovative or for which a centralized process is in the interest of patients, the centralized procedure may be optional. The centralized procedure may at the request of the applicant also be used in certain other cases. We anticipate that the centralized procedure will be mandatory for the product candidates we are developing.

Under the centralized procedure, the CHMP is also responsible for several post-authorization and maintenance activities, such as the assessment of modifications or extensions to an existing marketing authorization. Under the centralized procedure in the EU, the maximum timeframe for the evaluation of an MAA is 210 days, excluding clock stops, when additional information or written or oral explanation is to be provided by the applicant in response to questions of the CHMP. Accelerated evaluation might be granted by the CHMP in exceptional cases, when a medicinal product is of major interest from the point of view of public health and in particular from the viewpoint of therapeutic innovation. If the CHMP accepts such request, the time limit of 210 days will be reduced to 150 days but it is possible that the CHMP can revert to the standard time limit for the centralized procedure if it considers that it is no longer appropriate to conduct an accelerated assessment. At the end of this period, the CHMP provides a scientific opinion on whether or not a marketing authorization should be granted in relation to a medicinal product. Within 15 calendar days of receipt of a final opinion from the CHMP, the European Commission must prepare a draft decision concerning an application for marketing authorization. This draft decision must take the opinion and any relevant provisions of EU law into account. Before arriving at a final decision on an application for centralized authorization of a medicinal product the European Commission must consult the Standing Committee on Medicinal Products for Human Use. The Standing Committee is composed of representatives of the EU Member States and chaired by a non-voting European Commission representative. The European Parliament also has a related “droit de regard”. The European Parliament's role is to ensure that the European Commission has not exceeded its powers in deciding to grant or refuse to grant a marketing authorization.

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.

The EU medicines rules expressly permit the EU Member States to adopt national legislation prohibiting or restricting the sale, supply or use of any medicinal product containing, consisting of or derived from a specific type of human or animal cell, such as embryonic stem cells. While the products we have in development do not make use of embryonic stem cells, it is possible that the national laws in certain EU Member States may prohibit or restrict us from commercializing our products, even if they have been granted an EU marketing authorization.

Unlike the centralized authorization procedure, the decentralized marketing authorization procedure requires a separate application to, and leads to separate approval by, the competent authorities of each EU Member State in which the product is to be marketed. This application is identical to the application that would be submitted to the EMA for authorization through the centralized procedure. The reference EU Member State prepares a draft assessment and drafts of the related materials within 120 days after receipt of a valid application. The resulting assessment report is submitted to the concerned EU Member States who, within 90 days of receipt, must decide whether to approve the assessment report and related materials. If a concerned EU Member State cannot approve the assessment report and related materials due to concerns relating to a potential serious risk to public health, disputed elements may be referred to the European Commission, whose decision is binding on all EU Member States.

The mutual recognition procedure similarly is based on the acceptance by the competent authorities of the EU Member States of the marketing authorization of a medicinal product by the competent authorities of other EU Member States. The holder of a national marketing authorization may submit an application to the competent authority of an EU Member State requesting that this authority recognize the marketing authorization delivered by the competent authority of another EU Member State.

Regulatory Data Protection in the EU

In the EU, innovative medicinal products approved on the basis of a complete independent data package qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity pursuant to Directive 2001/83/EC. Regulation (EC) No 726/2004 repeats this entitlement for medicinal products authorized in accordance the centralized authorization procedure. Data exclusivity prevents applicants for authorization of generics of these innovative products from referencing the innovator's data to assess a generic (abridged) application for a period of eight years. During an additional two-year period of market exclusivity, a generic marketing authorization application can be submitted and authorized, and the innovator's data may be referenced, but no generic medicinal product can be placed on the EU market until the expiration of the market exclusivity. The overall ten-year period will be extended to a maximum of 11 years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies. Even if a compound is considered to be a new chemical entity so that the innovator gains the prescribed period of data exclusivity, another company nevertheless could also market another version of the product if such company obtained marketing authorization based on an MAA with a complete independent data package of pharmaceutical tests, preclinical tests and clinical trials.

Periods of Authorization and Renewals

A marketing authorization has an initial validity for five years in principle. The marketing authorization may be renewed after five years on the basis of a re-evaluation of the risk-benefit balance by the EMA or by the competent authority of the EU Member State. To this end, the marketing authorization holder must provide the EMA or the competent authority with a consolidated version of the file in respect of quality, safety and efficacy, including all variations introduced since the marketing authorization was granted, at least six months before the marketing authorization ceases to be valid. The European Commission or the competent authorities of the EU Member States may decide, on justified grounds relating to pharmacovigilance, to proceed with one further five-year period of marketing authorization. Once subsequently definitively renewed, the marketing authorization shall be valid for an unlimited period. Any authorization which is not followed by the actual placing of the medicinal product on the EU n market (in case of centralized procedure) or on the market of the authorizing EU Member State within three years after authorization ceases to be valid (the so-called sunset clause).

Orphan Drug Designation and Exclusivity

Regulation (EC) No. 141/2000, as implemented by Regulation (EC) No. 847/2000 provides that a drug can be designated as an orphan drug by the European Commission if its sponsor can establish: that the product is intended for the diagnosis, prevention or treatment of (1) a life-threatening or chronically debilitating condition affecting not more than five in ten thousand persons in the EU when the application is made, or (2) a life-threatening, seriously debilitating or serious and chronic condition in the EU and that without incentives it is unlikely that the marketing of the drug in the EU would generate sufficient return to justify the necessary investment. For either of these conditions, the applicant must demonstrate that there exists no satisfactory method of diagnosis, prevention or treatment of the condition in question that has been authorized in the EU or, if such method exists, the drug will be of significant benefit to those affected by that condition.

Once authorized, orphan medicinal products are entitled to 10 years of market exclusivity in all EU Member States and in addition a range of other benefits during the development and regulatory review process including scientific assistance for study protocols, authorization through the centralized marketing authorization procedure covering all member countries and a reduction or elimination of registration and marketing authorization fees. However, marketing authorization may be granted to a similar medicinal product with the same orphan indication during the 10-year period with the consent of the marketing authorization holder for the original orphan medicinal product or if the manufacturer of the original orphan medicinal product is unable to supply sufficient quantities. Marketing authorization may also be granted to a similar medicinal product with the same orphan indication if this product is safer, more effective or otherwise clinically superior to the original orphan medicinal product. The period of market exclusivity may, in addition, be reduced to six years if it can be demonstrated on the basis of available evidence that the original orphan medicinal product is sufficiently profitable not to justify maintenance of market exclusivity.

Pediatric Studies

Prior to obtaining a marketing authorization in the European Union, applicants have to demonstrate compliance with all measures included in an EMA-approved Paediatric Investigation Plan, or PIP, covering all subsets of the pediatric population, unless the EMA has granted a product-specific waiver, a class waiver, or a deferral for one or more of the measures included in the PIP. The respective requirements for all marketing authorization procedures are set forth in Regulation (EC) No 1901/2006, which is referred to as the Pediatric Regulation. This requirement also applies when a company wants to add a new indication, pharmaceutical form or route of administration for a medicine that is already authorized. The Pediatric Committee of the EMA, or PDCO, may grant deferrals for some medicines, allowing a company to delay development of the medicine in children until there is enough information to demonstrate its effectiveness and safety in adults. The PDCO may also grant waivers when development of a medicine in children is not needed or is not appropriate, such as for diseases that only affect the elderly population.

Before a marketing authorization application can be filed, or an existing marketing authorization can be amended, the EMA determines that companies actually comply with the agreed studies and measures listed in each relevant PIP.

Regulatory Requirements after a Marketing Authorization has been Obtained

In case an authorization for a medicinal product in the EU is obtained, the holder of the marketing authorization is required to comply with a range of requirements applicable to the manufacturing, marketing, promotion and sale of medicinal products. These include:

- Compliance with the EU's stringent pharmacovigilance or safety reporting rules must be ensured. These rules can impose post-authorization studies and additional monitoring obligations.

- The manufacturing of authorized medicinal products, for which a separate manufacturer's license is mandatory, must also be conducted in strict compliance with the applicable EU laws, regulations and guidance, including Directive 2001/83/EC, Directive 2003/94/EC, Regulation (EC) No 726/2004 and the European Commission Guidelines for Good Manufacturing Practice. These requirements include compliance with EU cGMP standards when manufacturing medicinal products and active pharmaceutical ingredients, including the manufacture of active pharmaceutical ingredients outside of the EU with the intention to import the active pharmaceutical ingredients into the EU.

- The marketing and promotion of authorized drugs, including industry-sponsored continuing medical education and advertising directed toward the prescribers of drugs and/or the general public, are strictly regulated in the EU notably under Directive 2001/83EC, as amended, and EU Member State laws. Direct-to-consumer advertising of prescription medicines is prohibited across the EU.

Brexit and the Regulatory Framework in the United Kingdom

On June 23, 2016, the electorate in the United Kingdom voted in favor of leaving the EU (commonly referred to as "Brexit"). Thereafter, on March 29, 2017, the country formally notified the EU of its intention to withdraw pursuant to Article 50 of the Lisbon Treaty. The withdrawal of the United Kingdom from the EU will take effect either on the effective date of the withdrawal agreement or, in the absence of agreement, two years after the United Kingdom provides a notice of withdrawal pursuant to the EU Treaty. Since the regulatory framework for pharmaceutical products in the United Kingdom.

covering quality, safety and efficacy of pharmaceutical products, clinical trials, marketing authorization, commercial sales and distribution of pharmaceutical products is derived from EU directives and regulations, Brexit could materially impact the future regulatory regime which applies to products and the approval of product candidates in the United Kingdom. It remains to be seen how, if at all, Brexit will impact regulatory requirements for product candidates and products in the United Kingdom.

Pricing Decisions for Approved Products

In the EU, pricing and reimbursement schemes vary widely from country to country. Some countries provide that products may be marketed only after a reimbursement price has been agreed. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular product candidate to currently available therapies or so-called health technology assessments, in order to obtain reimbursement or pricing approval. For example, the EU provides options for its Member States to restrict the range of products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. Member States may approve a specific price for a product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the product on the market. Other Member States allow companies to fix their own prices for products, but monitor and control prescription volumes and issue guidance to physicians to limit prescriptions. Recently, many countries in the EU have increased the amount of discounts required on pharmaceuticals and these efforts could continue as countries attempt to manage health care expenditures, especially in light of the severe fiscal and debt crises experienced by many countries in the EU. The downward pressure on health care costs in general, particularly prescription products, has become intense. As a result, increasingly high barriers are being erected to the entry of new products. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various Member States, and parallel trade, i.e., arbitrage between low-priced and high-priced Member States, can further reduce prices. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any products, if approved in those countries.

Patent Term Extension

In order to compensate the patentee for delays in obtaining a marketing authorization for a patented product, a supplementary certificate, or SPC, may be granted extending the exclusivity period for that specific product by up to five years. Applications for SPCs must be made to the relevant patent office in each E.U. member state and the granted certificates are valid only in the member state of grant. An application has to be made by the patent owner within six months of the first marketing authorization being granted in the European Union (assuming the patent in question has not expired, lapsed or been revoked) or within six months of the grant of the patent (if the marketing authorization is granted first). In the context of SPCs, the term “product” means the active ingredient or combination of active ingredients for a medicinal product and the term “patent” means a patent protecting such a product or a new manufacturing process or application for it. The duration of an SPC is calculated as the difference between the patent’s filing date and the date of the first marketing authorization, minus five years, subject to a maximum term of five years.

A six month pediatric extension of an SPC may be obtained where the patentee has carried out an agreed pediatric investigation plan, the authorized product information includes information on the results of the studies and the product is authorized in all member states of the European Union.

Pharmaceutical Coverage, Pricing and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of products approved by the FDA and other government authorities. Sales of products will depend, in part, on the extent to which the costs of the products will be covered by third-party payors, including government health programs in the United States such as Medicare and Medicaid, commercial health insurers and managed care organizations. The process for determining whether a payor will provide coverage for a product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors may limit coverage to specific products on an approved list, or formulary, which might not include all of the approved products for a particular indication. Additionally, the containment of healthcare costs has become a priority of federal and state governments, and the prices of drugs have been a focus in this effort. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results.

In order to secure coverage and reimbursement for any product that might be approved for sale, a company may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product, in addition to the costs required to obtain FDA or other comparable regulatory approvals. A payor’s decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Third-party reimbursement may not be sufficient to maintain price levels high enough to realize an appropriate return on investment in product development.

Healthcare Law and Regulation

Health care providers and third-party payors play a primary role in the recommendation and prescription of drug products that are granted marketing approval. Arrangements with providers, consultants, third-party payors and customers are subject to broadly applicable fraud and abuse, anti-kickback, false claims laws, patient privacy laws and regulations and other health care laws and regulations that may constrain business and/or financial arrangements. Restrictions under applicable federal and state health care laws and regulations, include the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, paying, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made, in whole or in part, under a federal healthcare program such as Medicare and Medicaid;
- the federal civil and criminal false claims laws, including the civil False Claims Act, and civil monetary penalties laws, which prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false, fictitious or fraudulent or knowingly making, using or causing to made or used a false record or statement to avoid, decrease or conceal an obligation to pay money to the federal government.
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created additional federal criminal laws that prohibit, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or making false statements relating to health care matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, and their respective implementing regulations, including the Final Omnibus Rule published in January 2013, which impose obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal false statements statute, which prohibits knowingly and willfully falsifying, concealing ·or covering up a material fact or making any materially false statement in connection with the delivery of or payment for health care benefits, items or services;
- the federal transparency requirements known as the federal Physician Payments Sunshine Act, under the Patient Protection and Affordable Care Act, as amended by the Health Care Education Reconciliation Act, or the Affordable Care Act, which requires certain manufacturers of drugs, devices, biologics and medical supplies to report annually to the Centers for Medicare & Medicaid Services, or CMS, within the United States Department of Health and Human Services, information related to payments and other transfers of value made by that entity to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members; and
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, which may apply to healthcare items or services that are reimbursed by non-government third-party payors, including private insurers.

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 manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures. 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.

Pharmaceutical Insurance Coverage and Health Care Reform

In the United States and markets in other countries, patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated health care costs. Significant uncertainty exists as to the coverage and reimbursement status of products approved by the FDA and other government authorities. Thus, even if a product candidate is approved, sales of the product will depend, in part, on the extent to which third-party payors, including government health programs in the United States such as Medicare and Medicaid, commercial health insurers and managed care organizations, provide coverage and establish adequate reimbursement levels for, the product. The process for determining whether a payor will provide coverage for a product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors are increasingly challenging the prices charged, examining the medical necessity and reviewing the cost-effectiveness of medical products and services and imposing controls to manage costs. 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 approved products for a particular indication.

In order to secure coverage and reimbursement for any product that might be approved for sale, a company may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product, in addition to the costs required to obtain FDA or other comparable marketing approvals. Nonetheless, product candidates may not be considered medically necessary or cost effective. A decision by a third-party payor not to cover a product could reduce physician utilization once the product is approved and have a material adverse effect on sales, results of operations and financial condition. Additionally, a payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a product does not assure that other payors will also provide coverage and reimbursement for the product, and the level of coverage and reimbursement can differ significantly from payor to payor.

The containment of health care costs also has become a priority of federal, state and foreign governments and the prices of products have been a focus in this effort. Governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit a company's revenue generated from the sale of any approved products. 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 a company or its collaborators receive marketing approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical and biopharmaceutical products, limiting coverage and reimbursement for drugs and biologics and other medical products, government control and other changes to the healthcare system in the United States. A primary trend in the United States healthcare industry and elsewhere is cost containment. There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical and biopharmaceutical products, limiting coverage and reimbursement for drugs and other medical products, government control and other changes to the healthcare system in the United States. In March 2010, the United States Congress enacted the Affordable Care Act, or ACA, which, among other things, includes changes to the coverage and payment for drug products under government health care programs. Among the provisions of the ACA of importance to our potential product candidates are:

- an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to certain individuals with income at or below 133% of the federal poverty level, thereby potentially increasing a manufacturer's Medicaid rebate liability;
- expanded manufacturers' rebate liability under the Medicaid Drug Rebate Program by increasing the minimum rebate for both branded and generic drugs and revising the definition of "average manufacturer price," or AMP, for calculating and reporting Medicaid drug rebates on outpatient prescription drug prices;
- addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;
- expanded the types of entities eligible for the 340B drug discount program;
- established the Medicare Part D coverage gap discount program by requiring manufacturers to provide a 50% (and 70% starting January 1, 2019) point-of-sale-discount off the negotiated price of applicable brand drugs to eligible beneficiaries during their coverage gap period as a condition for the manufacturers' outpatient drugs to be covered under Medicare Part D; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

Other legislative changes have been proposed and adopted in the United States since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers up to 2% per fiscal year, which went into effect in April 2013 and, due to subsequent legislative amendments, will remain in effect through 2027 unless additional Congressional action is taken. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Since enactment of the ACA, there have been numerous legal challenges and Congressional actions to repeal and replace provisions of the law. For example, with enactment of the Tax Cuts and Jobs Act of 2017, which was signed by the President on December 22, 2017, Congress repealed the "individual mandate." The repeal of this provision, which requires

most Americans to carry a minimal level of health insurance, will become effective in 2019. According to the Congressional Budget Office, the repeal of the individual mandate will cause 13 million fewer Americans to be insured in 2027 and premiums in insurance markets may rise. Additionally, on January 22, 2018, President Trump signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain ACA-mandated fees, including the so-called "Cadillac" tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices. Further, the Bipartisan Budget Act of 2018, among other things, amends the ACA, effective January 1, 2019, to increase from 50 percent to 70 percent the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D and to close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole". The Congress will likely consider other legislation to replace elements of the ACA during the next Congressional session.

The Trump Administration has also taken executive actions to undermine or delay implementation of the ACA. In January 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the ACA to waive, defer, grant exemptions from, or delay the implementation of any provision of the ACA that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. In October 2017, the President signed a second Executive Order allowing for the use of association health plans and short-term health insurance, which may provide fewer health benefits than the plans sold through the ACA exchanges. At the same time, the Administration announced that it will discontinue the payment of cost-sharing reduction, or CSR, payments to insurance companies until Congress approves the appropriation of funds for such CSR payments. The loss of the CSR payments is expected to increase premiums on certain policies issued by qualified health plans under the ACA. A bipartisan bill to appropriate funds for CSR payments was introduced in the Senate, but the future of that bill is uncertain.

Further, there have been several recent U.S. congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of drugs under Medicare and reform government program reimbursement methodologies for drug products. At the federal level, the Trump administration's budget proposal for fiscal year 2019 contains further drug price control measures that could be enacted during the 2019 budget process or in other future legislation, including, for example, measures to permit Medicare Part D plans to negotiate the price of certain drugs under Medicare Part B, to allow some states to negotiate drug prices under Medicaid, and to eliminate cost sharing for generic drugs for low-income patients. While any proposed measures will require authorization through additional legislation to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. At the state level, individual states are increasingly aggressive in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. In addition, regional health care authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other health care programs. These measures could reduce the ultimate demand for our products, once approved, or put pressure on our product pricing.

C. Organizational Structure

The following is a list of our subsidiaries:

Name of subsidiary	Country of registration	Activity	% holding
Summit Therapeutics Inc.	USA	Research and Development Services	100%
Summit Corporation Limited	England and Wales	Dormant	100%
Summit (Oxford) Limited	England and Wales	Research and Development	100%
Summit (Wales) Limited	England and Wales	Research and Development	100%
Summit (Cambridge) Limited	England and Wales	Dormant	100%
Summit Discovery 1 Limited	England and Wales	Dormant	100%
Summit Corporation Employee Benefit Trust Company Limited	England and Wales	Dormant	100%
MuOx Limited	England and Wales	Dormant	100%
Discuva Limited	England and Wales	Research and Development	100%
Summit Infectious Diseases Limited	England and Wales	Dormant	100%

D. Property, Plants and Equipment

We maintain the following leased properties:

Type/Uses	Location	Size	Lease Expiry
Executive office	Oxfordshire, United Kingdom	6,781 square feet	February 2027
Executive office	Cambridge, Massachusetts	1,168 square feet	Rolling
Laboratory and office	Cambridge, United Kingdom	8,834 square feet	December 2021

Item 4A: Unresolved Staff Comments

Not applicable.

Item 5: Operating and Financial Review and Prospects

You should read the following discussion and analysis of our financial condition and results of operations together with "Selected Consolidated Financial Data" and our consolidated financial statements and the related notes thereto appearing at the end of this Annual Report. 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.

Some information included in this discussion and analysis, including statements regarding industry outlook, our expectations regarding our future performance, liquidity and capital resources and other statements regarding our plans and strategy for our business and related financing, are forward-looking statements. These forward-looking statements are subject to numerous risks and uncertainties. You should read the "Risk Factors" section of this Annual Report for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Solely for the convenience of the reader, unless otherwise indicated, all pound sterling amounts as of and for the year ended January 31, 2018 have been translated into U.S. dollars at the noon buying rate of the Federal Reserve Bank of New York on January 31, 2018, of £1.00 to $1.4190. These translations should not be considered representations that any such 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.

Overview

We were founded in 2003 and are incorporated under the laws of England and Wales with the Registrar of Companies of England and Wales, United Kingdom. Our principal offices are located in the United Kingdom. Our ordinary shares have traded on AIM, which is a sub-market of the London Stock Exchange, since October 2004 and our American Depositary Shares, or ADSs, have traded on the Nasdaq Global Market since March 2015. Our historic business activities have included the research and development of drug candidates across a number of disease areas. We have also in the past provided drug discovery services to other pharmaceutical and biotechnology companies. However, we sold these drug discovery services businesses in 2009 as part of a broader restructuring initiative to focus on identifying and developing medicines in a range of major therapy areas. In 2012, we made a strategic decision to further refine our business focus and concentrate on the development of our clinical stage programs for Duchenne muscular dystrophy, or DMD, and *Clostridium difficile* infection, or CDI, in order to more efficiently capitalize on the scientific and commercial potential of these programs. Accordingly, we discontinued our in-house discovery efforts relating to the development of an iminosugar technology platform. We expanded our future generation utrophin modulator pipeline effort in November 2013 through the formation of a strategic alliance with the University of Oxford. As part of this transaction, we acquired an exclusive option to license intellectual property that is generated as part of our research with the University of Oxford in utrophin modulation. In 2014, we opened an office in Cambridge, Massachusetts, in order to strengthen our presence in the United States. We expect to undertake a significant proportion of our future development efforts for our clinical programs in the United States. In 2017, we acquired Discuva Limited, a U.K.-based company, providing us with access to a bacterial genetics-based platform.

To date, we have financed our operations primarily through issuances of our ordinary shares and American Depositary Shares, or ADSs, payments to us under our license and collaboration agreement with Sarepta Therapeutics, Inc., or Sarepta, and our license and commercialization agreement with Eurofarma Laboratórios SA, or Eurofarma, and development funding and other assistance from government entities, including the Biomedical Advanced Research and Development Authority, or BARDA, an agency of the U.S. government's Department of Health and Human Services' Office of the Assistant Secretary for Preparedness and Response, philanthropic, non-government and not for profit organizations and patient advocacy groups for our product candidates. In particular, we have received funding from the Wellcome Trust, Innovate UK, Joining Jack, the Muscular Dystrophy Association, Parent Project Muscular Dystrophy, Charley's Fund, Cure Duchenne, Foundation to Eradicate Duchenne and the Nash Avery Foundation.

We have generated losses since inception. Our net loss was approximately £7.1 million for the year ended January 31, 2018, £21.4 million for the year ended January 31, 2017 and £20.1 million for the year ended January 31, 2016. As of January 31, 2018, we had an accumulated deficit of £80.9 million. We expect to incur significant expenses and increasing operating losses for at least the next several years in connection with conducting clinical trials for our lead product candidates, ezutromid (formerly SMT C1100) for the treatment of DMD and ridinilazole (formerly SMT19969) for the treatment of CDI, conducting preclinical research and development activities and seeking marketing approval for ezutromid in the United States and other territories where we retain commercialization rights, and ridinilazole in the United States and the European Union as well as other geographies where we retain commercialization rights. In addition, subject to obtaining regulatory approval for ezutromid, ridinilazole or any of our future product candidates, we expect to incur significant commercialization expenses for product sales, marketing, distribution and outsourced manufacturing. We also incur additional costs associated with operating as a public company in the United States in addition to in the United Kingdom. Accordingly, we will need additional financing to support our continuing operations. Adequate additional financing may not be available to us on acceptable terms, or at all. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

A. Operating Results

Important Financial and Operating Terms and Concepts

Revenue

Revenue currently consists of amounts received under an exclusive license and collaboration agreement with Sarepta Therapeutics, Inc., or Sarepta, entered into in October 2016, and under an exclusive license and commercialization agreement with Eurofarma Laboratories S.A., or Eurofarma, entered into in December 2017, and amounts received from a research collaboration agreement between our subsidiary Discuva Limited and F. Hoffmann-La Roche Ltd, or Roche. The terms of the agreements with Sarepta and Eurofarma have been assessed, and we believe the development services to be indistinguishable from the initial license and as a result the upfront payments have been initially reported as deferred revenue on the Consolidated Statement of Financial Position and are being recognized as revenue over the development period. The terms of the research collaboration agreement with Roche have been assessed, and amounts received are recognized as revenue over the research services period.

Under the terms of the agreement with Sarepta, we received an upfront payment of $40.0 million (£32.8 million) from Sarepta in October 2016. In May 2017, we announced the first dosing of the last patient in PhaseOut DMD, our ongoing Phase 2 clinical trial of ezutromid, which triggered a $22.0 million (£17.2 million) development milestone payment due to us under the agreement. We also are eligible for future ezutromid-related development, regulatory and sales milestone payments totaling up to $500.0 million. This includes $20.0 million in respect of specified development milestones, $150.0 million in respect of specified regulatory milestones and $330.0 million from specified sales milestones. We are also eligible for escalating royalties ranging from a low to high teens percentage of net sales in the territories where we have granted Sarepta commercialization rights.

We also agreed to collaborate with Sarepta on the research and development of the licensed products pursuant to a joint development plan. We were solely responsible for all research and development costs for the licensed products until December 31, 2017. From January 1, 2018, we are responsible for 55.0% of the budgeted research and development costs related to the licensed products in the licensed territory, and Sarepta is responsible for 45.0% of such costs.

Under the terms of the agreement with Eurofarma, we received an upfront payment of $2.5 million (£1.9 million) from Eurofarma in December 2017. We also will be eligible for future ridinilazole-related development, regulatory and sales milestone payments totaling up to $32.7 million. This includes $3.75 million in development milestones upon the achievement of staged patient enrolment targets in the planned Phase 3 clinical trials of ridinilazole and up to an additional $21.4 million through other development milestones, commercial milestones, and one-time sales milestones based on cumulative net sales up to $100.0 million in the territory where Eurofarma has commercialization rights. Further, the agreement provides for product supply transfer payments expected to provide a return equivalent to a high single digit to low double-digit percentage of net sales. For each incremental $100.0 million in cumulative net sales achieved, we are entitled to a further milestone payment which, when combined with the aforementioned product supply transfer payments, is expected to provide a return equivalent to a mid- to high-teens percentage of net sales in the territories where we have granted Eurofarma commercialization rights.

Other Operating Income

Other operating income includes income received and recognized from philanthropic, non-government and not for profit organizations and patient advocacy groups which are accounted for in accordance with IAS 20, "*Accounting for Government Grants and Disclosure of Government Assistance*." Amounts received through these sources are held either as deferred revenue or recognized as accrued income, as appropriate, in the Consolidated Statement of Financial Position. Income is recognized in the Consolidated Statement of Comprehensive Income as the underlying expenditure is incurred and to the extent the conditions of the grant are met.

The BARDA contract provides for a cost-sharing arrangement under which BARDA would fund a specified portion of estimated costs for specified activities related to the continued clinical and regulatory development of ridinilazole for the treatment of CDI. Income is recognized in respect of BARDA as the underlying research and development expenditure is incurred.

Operating Expenses

The majority of our operating expenses since inception have consisted of research and development activities and general and administrative costs.

Research and Development Expenses

Research and development expenses consist of all costs associated with our research and development activities.

These include:

- costs incurred in conducting our preclinical studies and clinical trials through contract research organizations, including preclinical toxicology, pharmacology, formulation and manufacturing work;
- employee related expenses, which include salary and benefits, for our research and development staff;
- costs associated with our strategic alliance with the University of Oxford; and
- facilities, depreciation and other expenses, which include direct and allocated expenses for rent and maintenance of facilities, insurance and other supplies.

We utilize our employee and infrastructure resources across multiple research projects. We track expenses related to our clinical programs and certain preclinical programs on a per project basis. We expect our research and development expenses to continue to increase as compared to prior periods as we initiate and continue clinical trials of ezutromid for the treatment of DMD and ridinilazole for the treatment of CDI and continue our research activities and initiate preclinical programs for future product candidates, including under our bacterial genetics-based platform. The timing and amount of these expenses will depend upon the outcome of our ongoing clinical trials and the costs associated with our planned clinical trials. The timing and amount of these expenses will also depend on the costs associated with potential future clinical trials of our product candidates and the related expansion of our research and development organization, regulatory requirements, advancement of our preclinical programs and product candidate manufacturing costs.

The table below summarizes our research and development expenses by category. Our DMD and CDI program expenses include costs paid to contract research organizations, manufacturing costs for our clinical trials, laboratory testing costs and research related expenses incurred in connection with our strategic alliance with the University of Oxford. Other research and development costs include staff and travel costs (including those of our internal DMD and CDI teams), research and development related legal costs, ongoing patent maintenance fees, an allocation of facility-related costs and historically non-core program related expenses.

	Year ended January 31,			
	2018	2018	2017	2016
		(in thousands)		
DMD program	$ 22,646	£ 15,959	£ 9,480	£ 7,526
CDI program	7,996	5,635	4,088	5,567
Other research and development costs	10,467	7,376	5,384	3,763
Total	$ 41,109	£ 28,970	£ 18,952	£ 16,856

From inception to January 31, 2018, our total DMD program expenses were £43.7 million and our total CDI program expenses were £23.4 million.

The successful development and commercialization of our product candidates is highly uncertain. At this time, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts that will be necessary to complete the remainder of the development of ezutromid, ridinilazole or any of our future product candidates.
This is due to the numerous risks and uncertainties associated with product development and commercialization, including the uncertainty of:

- the progress, costs and results of clinical trials of ezutromid for DMD and ridinilazole for CDI;
- the scope, rate of progress, costs and results of preclinical development, laboratory testing and clinical trials for our future product candidates;
- the costs, timing and outcome of regulatory review of our product candidates;
- the efficacy and potential advantages of our product candidates compared to alternative treatments, including any standard of care, and our ability to achieve market acceptance for any of our product candidates that receive marketing approval;
- the costs and timing of commercialization activities, including product sales, marketing, distribution and manufacturing, for any of our product candidates that receive marketing approval and the rate we expand our physical presence; and
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining, enforcing and protecting our intellectual property rights and defending against any intellectual property-related claims.

A change in the outcome of any of these variables with respect to the development of ezutromid or ridinilazole or any other future product candidate that we may develop could result in a significant change in the costs and timing associated with the development of that product candidate. For example, if the European Medicines Agency, or EMA, the U.S. Food and Drug Administration, or the FDA, or another regulatory authority were to require us to conduct clinical trials or other testing beyond those that we currently contemplate will be required for the completion of clinical development of ezutromid or ridinilazole or any other future product candidate, or if we experience significant delays in enrollment in any of our clinical trials, we could be required to expend significant additional resources and time on the completion of clinical development of that product candidate.

General and Administration Expenses

General and administration expenses consist primarily of salaries and benefits related to our executive, finance, business development, human resources and support functions. Other general and administration expenses include share-based compensation expenses, facility-related costs, consulting costs and expenses associated with the requirements of being a listed public company in the United Kingdom and the United States, including insurance, legal, professional, audit and taxation services fees.

We anticipate that our general and administration 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. We also anticipate continued increased accounting, audit, regulatory, compliance, insurance and investor and public relations expenses associated with being a publicly traded company in the United Kingdom and the United States. Our ADSs have traded on the Nasdaq Global Market since March 5, 2015.

Taxation

As a U.K. resident trading entity, we are subject to U.K. corporate taxation. Due to the nature of our business, we have generated losses since inception. To date, we have not recognized a deferred tax asset with respect to these tax losses because we do not consider it probable that there will be suitable taxable profits in the foreseeable future based on the evidence available. 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 trading losses that arise from our research and development activities for a cash rebate ranging from 8.91% to 33.35% of eligible research and development expenditure. In the event we generate revenues in the future, we may benefit from the "patent box" initiative that allows profits attributable to revenues from patents or patented products to be taxed at a lower rate than other revenue. This relief applies to profits earned from April 1, 2013 and following the transitional arrangements that will phase in the relief, the rate of tax for relevant streams of revenue for companies receiving this relief will be 10%.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which we have prepared in accordance with IFRS as issued by the IASB. In the preparation of these financial statements, we are required to make judgments, estimates and assumptions about the carrying amounts 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 under different assumptions or conditions. 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.

While our significant accounting policies are described in more detail in the notes to our consolidated financial statements appearing at the end of this Annual Report, we believe the following accounting policies to be most critical to the judgments and estimates used in the preparation of our financial statements.

Revenue Recognition

We recognize revenue from licensing fees, collaboration fees, development, regulatory and approval milestone fees, sales milestones and royalties. Agreements generally include a non-refundable up-front fees, milestone payments, the receipt of which is dependent upon the achievement of certain clinical, regulatory or commercial milestones, as well as royalties on product sales of licensed products, if and when such product sales occur. For these agreements, we are required to apply judgment in the allocation of total agreement consideration to the separately identifiable components on a reliable basis that reasonably reflects the selling prices that might be expected to be achieved in stand-alone transactions. We are required to make a judgment on those components which can be recognized immediately and those to which we apply the percentage of completion revenue recognition method. In relation to the license and collaboration agreements with Sarepta and the license and commercialization agreement with Eurofarma, management has assessed that the development services to be indistinguishable from the license. As a result the upfront payment has been initially reported as deferred revenue in the Consolidated Statement of Financial Position and is being recognized as revenue over the development period. Development and regulatory approval milestone payments associated with these contracts will be recognized to the extent that the milestone event has been completed successfully.

Recognition of Research and Development Expenses

We recognize expenses incurred in carrying out our research and development activities in line with our best estimation of the stage of completion of each separately contracted study or activity. This includes the calculation of research and development accruals at each period to account for expenditure that has been incurred. This requires estimations of the full costs to complete each study or activity and also estimation of the current stage of completion. There have been no material adjustments to estimates based on the actual costs incurred for the periods presented. In all cases, we expense the full cost of each study or activity by the time the final study report or, where applicable, product, has been received.

We will recognize an internally generated intangible asset arising from our development activities only when an asset is created that can be identified, it is probable that the asset created will generate future economic benefits and the development cost of the asset can be measured reliably. We have determined that regulatory approval is the earliest point at which the probable threshold for the creation of an internally generated intangible asset can be achieved. We therefore expense all research and development expenditure incurred prior to achieving regulatory approval as it is incurred. None of our product candidates have yet received regulatory approval.

Financial Liabilities on Funding Arrangements

When entering into funding agreements with charitable and not for profit organizations, we are required to assess whether, based on the terms of the agreement, we can avoid a transfer of cash only by settling a non-financial obligation. An example of this would be the obligation to transfer the rights to the research to a funding provider. In the circumstances where we cannot avoid the obligation, all or part of the funding agreement should be accounted for as a financial liability rather than as a charitable grant. In calculating the financial liabilities, both at inception and when it is subsequently re-measured, a number of assumptions need to be made by management which include significant estimates. Assumptions used in the model include the following: reported disease prevalence; expected market share based on management's estimates; drug reimbursement pricing in different territories, potential licensing terms which may be offered to us (for relevant products); expected patent life; and the timing and probabilities of achieving clinical development milestones which are based on industry standards and adjusted for therapy area. Discount factors in the range of 16% to 18% have been used in the model which has been calculated using appropriate measures and rates which could have been obtained in the period that the funding agreement was entered into. Sensitivity analysis is included in the notes to the financial statements and has been calculated based on a range of discount factors, estimated level of revenue and development probabilities of success. The financial liabilities are re-measured, and we are required to apply judgment, when there is a specific significant event that provides evidence of a significant change in the probability of successful development such as the completion of a phase of research or changes in use or market for a product.

Share-based Compensation

We measure share options at fair value at their grant date in accordance with IFRS 2, "*Share-based Payment*". We calculate the fair value of the share option using either the Black-Scholes model, or for options with performance conditions, a simulation model. We charge the fair value to the Consolidated Statement of Comprehensive Income over the expected vesting period. In the case of options that are issued below market value, the fair value will be higher than an option granted at market value, and we recognize a larger charge for such options.

Acquired Intangible Assets and Assumed Contingent Liabilities Valuations

When we execute an acquisition resulting in a business combination as accounted under IFRS 3 "*Business Combinations*", identifiable intangible assets and assumed contingent liabilities are required to be recognized in the Consolidated Financial Statements at fair value. In determining the fair value of such assets and liabilities a number of assumptions need to be made by management which include significant estimates, which are described in more detail in the notes to our consolidated financial statements.

Results of Operations

Comparison of Years Ended January 31, 2018 and 2017

The following table summarizes the results of our operations for the years ended January 31, 2018 and 2017, together with the changes to those items:

	Year ended January 31,		Change 2018 vs. 2017	
	2018	2017	Increase/(Decrease)	
	(in thousands, except percentages)			
Revenue	£ 25,419	£ 2,304	£ 23,115	1,003.3 %
Other operating income	2,725	72	2,653	3,684.7
Operating expenses				
Research and development	(28,970)	(18,952)	10,018	52.9
General and administration	(11,999)	(8,277)	3,722	45.0
Operating loss	(12,825)	(24,853)	(12,028)	(48.4)
Finance income	3,096	8	3,088	38,600.0
Finance cost	(1,164)	(862)	302	35.0
Loss before income tax	(10,893)	(25,707)	(14,814)	(57.6)
Income tax credit	3,762	4,336	(574)	(13.2)
Loss for the year	£ (7,131)	£ (21,371)	£ (14,240)	(66.6)%

Revenue

Revenue of £25.4 million was recognized during the year ended January 31, 2018 compared to £2.3 million recognized during the year ended January 31, 2017. This increase was principally due to income received pursuant to our exclusive license and collaboration agreement with Sarepta. During the year ended January 31, 2018, £6.9 million relating to the upfront payment of $40.0 million (£32.8 million) from Sarepta received in October 2016 was recognized compared to £2.3 million for the year ended January 31, 2017. To date, an aggregate of £9.2 million of the upfront payment has been recognized while the remaining £23.6 million is classified as deferred revenue and will continue to be recognized as revenue over the development period. Revenue recognized during the year ended January 31, 2018 also reflects the receipt of a development milestone of £17.2 million ($22.0 million) paid by Sarepta which was recognized in full and £0.9 million of income recognized in respect of specified DMD research and development costs funded by Sarepta pursuant to our license and collaboration agreement. In addition, revenue of £0.1 million was recognized during the year ended January 31, 2018 in respect of our exclusive license and commercialization agreement with Eurofarma. Under the terms of the agreement, we received an upfront payment of $2.5 million (£1.9 million) from Eurofarma in December 2017. We have assessed the agreement, and we believe the development services to be indistinguishable from the grant of the license and as a result the upfront payment has been initially reported as deferred revenue on the Consolidated Statement of Financial Position and is being recognized as revenue over the development period. Revenue of £0.3 million was recognized during the year ended January 31, 2018 pursuant to the research collaboration agreement between our subsidiary Discuva Limited and Roche. Under the terms of the agreement, £9.0 million was received by Discuva Limited from Roche in February 2014 and is being recognized over the research services period.

Other Operating Income

Other operating income increased by £2.6 million to £2.7 million during the year ended January 31, 2018 from £0.1 million during the year ended January 31, 2017. This increase resulted primarily from the recognition of £1.8 million pursuant to our contract with BARDA that was awarded in September 2017 and £0.9 million resulting from the derecognition of a part of Summit's financial liabilities on funding arrangements, which is further discussed in Note 18 – 'Financial liabilities on funding arrangements' to our consolidated financial statements.

Operating Expenses

Research and Development Expenses

Research and development expenses increased by £10.0 million, or 52.9%, to £29.0 million for the year ended January 31, 2018 from £19.0 million for the year ended January 31, 2017. This increase was due to increased spending related to both our DMD and CDI programs. During the year ended January 31, 2018, expenses related to our DMD program increased by £6.5 million to £16.0 million from £9.5 million for the year ended January 31, 2017. This increase included £2.6 million related to our ezutromid clinical activities, £1.5 million associated with manufacturing costs for our clinical trials and £2.4 million related to research associated with our future generation utrophin modulator program. During the year ended January 31, 2018, expenses related to our CDI program increased by £1.5 million to £5.6 million from £4.1 million for the year ended January 31, 2017. This increase was primarily due to planning activities relating to the two planned Phase 3 clinical trials of ridinilazole. During the year ended January 31, 2018, other research and development expenses increased by £2.0 million to £7.4 million from £5.4 million for the year ended January 31, 2017. This increase was due to a £1.4 million increase in staffing costs, a £0.3 million increase in internal regulatory costs and a £0.3 million increase in supplier contracting costs relating to research and development.

General and Administration Expenses

General and administration expenses increased by £3.7 million, or 45.0%, to £12.0 million for the year ended January 31, 2018 from £8.3 million for the year ended January 31, 2017. This increase was due to a net negative movement in exchange rate variances of £1.5 million, an increase of £1.3 million in staff related costs, an increase of £0.6 million in overhead and facility related costs and an increase of £0.3 million in share-based payment expense.

Finance Income

Finance income was £3.1 million for the year ended January 31, 2018 and related primarily to the de-recognition of a part of our financial liabilities on funding arrangements, specifically the remeasurements and discounts associated with the liabilities since initial recognition, which is further discussed in Note 18 – 'Financial liabilities on funding arrangements' to our consolidated financial statements. Finance income recognized in comparative periods relates to bank interest received.

Finance Cost

Finance costs increased by £0.3 million, or 35.0%, to £1.2 million for the year ended January 31, 2018 from £0.9 million for the year ended January 31, 2017 and related to the unwinding of the discount and remeasurements on financial liabilities on funding arrangements.

Income Tax Credit

Our income tax credit decreased by £0.5 million, or 13.2%, to £3.8 million for the year ended January 31, 2018 from £4.3 million for the year ended January 31, 2017. This was driven by our lower level of net loss during the year ended January 31, 2018 as compared to the year ended January 31, 2017, which impacts the level of income tax credit receivable.

Comparison of Years Ended January 31, 2017 and 2016

The following table summarizes the results of our operations for the years ended January 31, 2017 and 2016, together with the changes to those items:

	Year ended January 31,		Change 2017 vs. 2016	
	2017	2016	Increase/(Decrease)	
	(in thousands, except percentages)			
Revenue	£ 2,304	£ —	£ 2,304	—
Other operating income	72	1,281	(1,209)	(94.4)%
Operating expenses				
Research and development	(18,952)	(16,856)	2,096	12.4
General and administration	(8,277)	(4,771)	3,506	73.5
Operating loss	(24,853)	(20,346)	4,507	22.2
Finance income	8	30	(22)	(73.3)
Finance cost	(862)	(2,879)	(2,017)	(70.1)
Loss before income tax	(25,707)	(23,195)	2,512	(10.8)
Income tax credit	4,336	3,058	1,278	41.8
Loss for the year	£ (21,371)	£ (20,137)	£ 1,234	(6.1)%

Revenue

Revenue of £2.3 million was recognized during the year ended January 31, 2017 following our entry into an exclusive license and collaboration agreement with Sarepta. Under the terms of the agreement, we received an upfront payment of $40.0 million (£32.8 million) from Sarepta. We have assessed the agreement, and we believe the development services to be indistinguishable and as a result the upfront payment has been initially reported as deferred revenue on the Consolidated Statement of Financial Position and is being recognized as revenue over the development period.

Other Operating Income

Other operating income decreased by £1.2 million, or 94.4%, to £0.07 million during the year ended January 31, 2017 from £1.3 million during the year ended January 31, 2016. Income attributed to the funding agreement with the Wellcome Trust has been adjusted and is now been recognized in full with the completion of our CoDIFy Phase 2 clinical trial of ridinilazole. Income recognized as part of the funding from Innovate UK for the DMD program decreased by £0.5 million to £0.06 million for the year ended January 31, 2017 from £0.6 million for the year ended January 31, 2016. The decrease in income is in line with the achievement of milestones under the funding agreement. Further, in September 2016, we elected to withdraw from the Innovate UK funding agreement in order to enable us to take advantage of more tax efficient opportunities related to research and development expenditure.

Operating Expenses

Research and Development Expenses

Research and development expenses increased by £2.1 million, or 12.4%, to £19.0 million for the year ended January 31, 2017 from £16.9 million for the year ended January 31, 2016. This increase was primarily due to increased spending related to our DMD program. During the year ended January 31, 2017, expenses related to our DMD program increased by £2.0 million to £9.5 million from £7.5 million for the year ended January 31, 2016. This increase included £1.9 million related to our ezutromid clinical activities, £0.9 million associated with manufacturing costs for our clinical trials, and was offset by a decrease of £0.8 million related to research associated with our future generation utrophin modulator program, the development of which was put on hold in September 2016 due to the substantial increase in ezutromid plasma levels achieved with our F6 formulation of ezutromid. During the year ended January 31, 2017, expenses related to our CDI program decreased by £1.5 million to £4.1 million from £5.6 million for the year ended January 31, 2016. This decrease was primarily due to the completion of our CoDIFy Phase 2 clinical trial of ridinilazole. During the year ended January 31, 2017, other research and development expenses increased by £1.6 million to £5.4 million from £3.8 million for the year ended January 31, 2016. This increase was due to a £1.3 million increase in staffing costs, a £0.1 million increase in internal regulatory costs and a £0.1 million increase in the share-based payment charge allocated to research and development expenses, which resulted from increased employee headcount within our DMD and CDI program teams.

General and Administration Expenses

General and administration expenses increased by £3.5 million, or 73.5%, to £8.3 million for the year ended January 31, 2017 from £4.8 million for the year ended January 31, 2016. This increase was due to a £1.5 million increase in legal and professional expenses, an increase of £0.7 million in staff related costs, an increase of £0.2 million in share based payment expense and an increase of £0.1 million in overhead and facility related costs as well as a net negative movement of £1.0 million in exchange rate variance.

Finance Income

Finance income decreased by £0.02 million to £0.01 million for the year ended January 31, 2017 from £0.03 million for the year ended January 31, 2016. This decrease was due to reduced bank interest received on cash deposits as a result of a lower available bank interest rate.

Finance Cost

Following an IFRS Interpretations Committee agenda decision in May 2016 on the application of IAS 20, "Accounting for Government Grants and Disclosure of Government Assistance," we changed our accounting policy regarding charitable funding arrangements from the Wellcome Trust and U.S. not for profit organizations. Finance costs relate to the subsequent remeasurement of the financial liability recognized in respect of funding arrangements and the unwinding of the discounts associated with the liabilities. Finance costs decreased by £2.0 million, or 70.1%, to £0.9 million for the year ended January 31, 2017 from £2.9 million for the year ended January 31, 2016 as there was not a subsequent re-measurement of the financial liability during the year ended January 31, 2017, with finance costs relating to the unwinding of the discount only. During the year ended January 31, 2016, of the total finance cost of £2.9 million, £2.6 million related to the re-measurement of the financial liability following positive data in the DMD and CDI clinical programs that increased the probabilities of success.

Income Tax Credit

Our income tax credit increased by £1.3 million, or 41.8%, to £4.3 million for the year ended January 31, 2017 from £3.0 million for the year ended January 31, 2016. This increase was the result of our increased expenditure on research and development and a related increase in our research and development tax credit.

B. Liquidity and Capital Resources

Sources of liquidity

Since our inception, we have incurred significant operating losses. We anticipate that we will continue to incur losses for at least the next several years. We expect that our research and development and general and administration expenses will continue to increase in connection with conducting clinical trials for our lead product candidates, ezutromid for the treatment of DMD and ridinilazole for the treatment of CDI, conducting preclinical research and development activities and seeking marketing approval for ezutromid in the United States and other territories where we retain commercialization rights and ridinilazole in the United States and the European Union as well as other geographies where we retain commercialization rights. As a result, we will need additional capital to fund our operations, which we may obtain from additional financings, research funding, collaborations, contract and grant revenue or other sources. Additional capital, when needed, may not be available to us on acceptable terms, or at all.

To date, we have financed our operations primarily through issuances of our ordinary shares and American Depositary Shares, or ADSs, payments to us under our license and collaboration agreement with Sarepta and our license and commercialization agreement with Eurofarma and development funding and other assistance from government entities, philanthropic, non-government and not for profit organizations and patient advocacy groups for our product candidates. In particular, we have received funding from BARDA, Wellcome Trust, Innovate UK, Joining Jack, the Muscular Dystrophy Association, Parent Project Muscular Dystrophy, Charley's Fund, Cure Duchenne, Foundation to Eradicate Duchenne and the Nash Avery Foundation.

As of January 31, 2018, we had cash and cash equivalents of £20.1 million.

In March 2014, we received net proceeds of £20.5 million from the issuance and sale of 16,923,077 ordinary shares in a private placement outside the United States. In March 2015, in our initial public offering in the United States, we received net proceeds of $32.7 million (£21.9 million) from the issuance and sale of 3,967,500 American Depositary Shares which represent 19,837,500 ordinary shares. In October 2016, in connection with our entry into an exclusive license and collaboration agreement with Sarepta, we received an up-front payment of $40.0 million (£32.8 million) from Sarepta and we received a further $22.0 million (£17.2 million) in June 2017 as a development milestone from Sarepta following the first dosing of the last patient in our ongoing Phase 2 clinical trial of ezutromid. In September 2017, we received net proceeds of $18.2 million (£13.5 million) from the issuance and sale of 1,677,850 American Depositary Shares which represent 8,389,250 ordinary shares. In December 2017, in connection with our entry into an exclusive license and commercialization agreement with Eurofarma, we received an up-front payment of $2.5 million (£1.9 million) from Eurofarma.

In March 2018, subsequent to our financial year end, we received gross proceeds of £15.0 million (before expenses) from the issuance and sale of 8,333,333 ordinary shares to investors in Europe.

Cash Flows

The following table summarizes the results of our cash flows for the years ended January 31, 2018, 2017 and 2016.

	Year ended January 31,			
	2018	2018	2017	2016
		(in thousands)		
Net cash (outflow) / inflow from operating activities	$ (20,843)	£ (14,689)	£ 12,141	£ (17,182)
Net cash outflow from investing activities	(7,439)	(5,242)	(80)	(36)
Net cash inflow from financing activities	19,731	13,905	413	22,136
Net (decrease) / increase in cash and cash equivalents	$ (8,551)	£ (6,026)	£ 12,474	£ 4,918

Operating Activities

For the year ended January 31, 2018, net cash used by operating activities was £14.7 million. This compares to net cash generated from operating activities of £12.1 million for the year ended January 31, 2017. This net movement of £26.8 million was driven by an increase in research and development costs during the year ended January 31, 2018, and the receipt, during the year ended January 31, 2017, of a £32.8 million upfront payment as part of the exclusive collaboration and licensing agreement entered into with Sarepta in October 2016, which was partially offset by the receipt of the development milestone from Sarepta of £17.2 million during the year ended January 31, 2018 as well as the funding received from BARDA and the upfront payment received from Eurofarma during the year ended January 31, 2018.

For the year ended January 31, 2017, we generated £12.1 million in cash from operating activities. This compares to net cash used in operating activities of £17.2 million for the year ended January 31, 2016. This net movement of £29.3 million was driven by our receipt of a $40.0 million (£32.8 million) upfront payment from Sarepta as part of our exclusive license and collaboration agreement with them. This was offset by an increase in research and development expenditure and general and administrative expenditure during the year ended January 31, 2017. There was also a £1.6 million increase in the amount of research and development tax credit received during the year ended January 31, 2017 which was £3.0 million compared to £1.4 million received during the year ended January 31, 2016.

Investing Activities

Net cash outflow from investing activities for the year ended January 31, 2018 included £4.8 million used in the acquisition of Discuva Limited in December 2017, net of cash acquired as part of the transaction, and a further £0.5 million used to acquire property, plant and equipment and intangible assets mainly in relation to the relocation of our U.K. office in Oxford.

Net cash outflow for the year ended January 31, 2017 and net cash inflows for the year ended January 31, 2016 include the net amount of bank interest received on cash deposits less amounts paid to acquire property and equipment.

Financing Activities

Net cash inflow from financing activities for the year ended January 31, 2018 includes £13.5 million of proceeds, net of transaction costs, from our underwritten public offering in September 2017, and proceeds following the exercise of warrants and the exercise of share options.

Net cash inflow from financing activities for the year ended January 31, 2017 relates to proceeds from the exercise of warrants and the exercise of share options, and net cash inflow for the year ended January 31, 2016 relates to the proceeds received from the various sales of our equity securities, net of expenses. We received £22.1 million from the sale of equity securities during the year ended January 31, 2016.

C. Funding Requirements

We anticipate that our expenses will increase substantially in connection with conducting clinical trials for our lead product candidates, ezutromid for the treatment of patients with DMD and ridinilazole for the treatment of patients with CDI, conducting preclinical research and development activities and seeking marketing approval for ezutromid in the United States and other territories where we retain commercialization rights and ridinilazole in the United States and the European Union as well as in other geographies where we retain commercialization rights. In addition, if we obtain marketing approval of ezutromid or ridinilazole, we expect to incur significant sales, marketing, distribution and outsourced manufacturing expense, as well as ongoing research and development expenses.

In addition, our expenses will increase if and as we:

- continue the research and development of the F3 formulation of ezutromid, the F6 formulation of ezutromid and future generation utrophin modulators that we are developing in collaboration with the University of Oxford and Sarepta;
- continue the research and development of ridinilazole;
- seek to identify and develop additional future product candidates, including through our bacterial genetics-based platform for the discovery and development of new mechanism antibiotics;
- seek marketing approvals for any product candidates that successfully complete clinical development;
- ultimately establish a sales, marketing and distribution infrastructure in jurisdictions where we have retained commercialization rights and scale up external manufacturing capabilities to commercialize any product candidates for which we receive marketing approval;
- acquire or in-license other product candidates and technology;
- maintain, expand and protect our intellectual property portfolio;
- hire additional clinical, regulatory and scientific personnel;
- expand our physical presence; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts.

We believe that our existing cash and cash equivalents, as well as the $32 million we have been awarded under the base period of our contract with BARDA for the development of ridinilazole and the cost-sharing arrangement under our license and collaboration agreement with Sarepta, will be sufficient to enable us to fund our operating expenses and capital expenditure requirements through at least April 30, 2019. In our DMD program, while we anticipate that these capital resources will allow us to obtain top-line data for our Phase 2 clinical trial of ezutromid, which we refer to as PhaseOut DMD, we do not expect these capital resources will be sufficient to complete our planned randomized, placebo controlled clinical trial of ezutromid. In addition, in our CDI program, while we also anticipate that these capital resources will allow us to initiate our two, planned Phase 3 clinical trials of ridinilazole, we do not expect to be able to complete these trials without additional capital.

We have based the foregoing estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect. This estimate assumes, among other things, that we do not obtain any additional funding through grants and clinical trial support or through new collaboration arrangements. Our future capital requirements will depend on many factors, including:

- the progress, costs and results of clinical trials of ezutromid for DMD and ridinilazole for CDI;
- the scope, progress, costs and results of preclinical development, laboratory testing and clinical trials for our F3 formulation of ezutromid, the F6 formulation of ezutromid and future generation utrophin modulators that we are developing in collaboration with the University of Oxford and Sarepta;
- the number and development requirements of other future product candidates that we pursue;
- the costs, timing and outcome of regulatory review of ezutromid, ridinilazole and our other future product candidates;
- the costs and timing of commercialization activities, including product sales, marketing, distribution and manufacturing, for any of our product candidates that receive marketing approval;
- subject to receipt of marketing approval, revenue received from commercial sales of ezutromid, ridinilazole or any of our other future product candidates;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and protecting our intellectual property rights and defending against any intellectual property-related claims;
- the amounts we receive from Sarepta under our license and collaboration agreement, including for the achievement of development, regulatory and sales milestones and royalty payments;
- our contract with BARDA and whether BARDA elects to pursue its designated options beyond the base period;
- the amounts we receive from Eurofarma under our license and commercialization agreement, including for the achievement of development, commercialization and sales milestones and for product supply transfers;
- our ability to establish and maintain collaborations, licensing or other arrangements and the financial terms of such arrangements;
- the extent to which we acquire or invest in other businesses, products and technologies;
- the rate of the expansion of our physical presence; and
- the costs of operating as a public company in the United States in addition to in the United Kingdom.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, collaborations, strategic alliances, grants and clinical trial support from governmental entities and philanthropic, non-government and not for profit organizations and patient advocacy groups, debt financings, and marketing, distribution or licensing arrangements. We do not have any committed external source of funds other than amounts we may receive from Sarepta, Eurofarma and BARDA under our arrangements with them. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our existing shareholders, including our ADS holders, will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our existing shareholders and ADS holders. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends or other distributions. If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings or other arrangements 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 product candidates that we would otherwise prefer to develop and market ourselves.

D. Tabular Disclosure of Contractual Obligations

The following table summarizes our contractual commitments and obligations as of January 31, 2018.

	Payments due by period				
	Total	Less than 1 Year	Between 1 and 3 Years	Between 3 and 5 Years	More than 5 Years
			(in thousands)		
Operating lease obligations	£ 1,480	£ 337	£ 740	£ 403	—
Contractual obligations	1,673	981	692	—	—
Total contractual cash obligations	£ 3,153	£ 1,318	£ 1,432	£ 403	—

We enter into operating leases in the normal course of our business.

The contractual obligations in the preceding table reflect our obligation to fund a drug research and discovery program in the University of Oxford laboratories that is described in more detail under "University of Oxford" below.

Under various agreements, including those described below, we will be required to pay royalties and make milestone payments to third parties. See "Business—Our Collaborations and Funding Arrangements" in this Annual Report for additional information regarding these agreements. The preceding table excludes contingent payment obligations, such as royalties and milestones, which are described in more detail below, because the amount, timing and likelihood of payment are not known.

Discuva

Under a collaboration agreement that Discuva Limited, or Discuva, has with Roche, Roche is obligated to pay specified development, commercialization and sales milestone payments related to any compound developed under the platform that is or has been optioned by Roche. In connection with our acquisition of Discuva, we agreed to pay to former Discuva shareholders one-half of the economic benefit of any such payments received from Roche. In addition, certain employees, former employees and former directors of Discuva are eligible for payments from Discuva based on specified development and clinical milestones related to proprietary product candidates developed under the platform.

University of Oxford

In November 2013, we acquired all of the outstanding equity of MuOx Limited, or MuOx, a spin out of the University of Oxford. In connection with that acquisition, we and MuOx entered into a set of agreements with the University of Oxford and its technology transfer division, Isis Innovation Limited, which is now known as Oxford University Innovation Limited, or OUI. Under the research sponsorship agreement that we entered into with the University of Oxford and OUI in November 2013, amended and restated in July 2014 and amended further in November 2015 and September 2017, we have agreed to fund a drug research and discovery program in the University of Oxford laboratories to identify and research utrophin modulators to treat DMD. The University of Oxford is responsible for conducting this program. OUI has no obligations under the research sponsorship agreement. We have agreed to fund up to £4.6 million for this purpose over the initial six-year research period ending in November 2019. If we exercise our right to extend the research period by an additional year, we have agreed to fund an additional £0.8 million, for a total of £5.4 million. As of January 31, 2018, we had paid to the University of Oxford £3.1 million of this amount. Under an option agreement that we, the University of Oxford and OUI entered into in November 2013, which we amended in November 2015, which we refer to as the option agreement, OUI granted us an exclusive option to license certain intellectual property, or IP, arising under the research sponsorship agreement and certain other IP arising from research and development at the University of Oxford, which we refer to as arising IP. We paid OUI £10,000 in connection with entering into the amendment to the option agreement. If we exercise our option to obtain a license under arising IP, we would be obligated to pay OUI a specified sum in option exercise fees. For any arising IP for which we have exercised the option and that comprises new chemical entities or compounds, which we refer to as optioned compounds, we would obtain an exclusive, sublicensable license. We are obligated to pay milestone payments of up to £75,000 upon the achievement of specified development milestones, whether such milestones occur prior to or after our exercise of the option to obtain an exclusive sublicensable license. Following exercise of such an option we would also be obligated to pay milestone payments upon the achievement of specified regulatory milestones with respect to each optioned compound. The specified regulatory milestone payment is due each time the specified regulatory milestone is achieved with respect to an optioned compound and, if each optioned compound achieved each regulatory milestone once, we would be obligated to pay OUI a total of £3.7 million in regulatory milestone payments for each optioned compound.

We would also be obligated to pay OUI a low single digit royalty of net sales by us, our affiliates or sublicensees of any product containing an optioned compound or on any payments we receive in connection with granting a sublicense under the licensed arising IP. For any arising IP for which we have exercised the option and that does not comprise new chemical entities or compounds, we would obtain an exclusive license, which we could sublicense with Isis' prior written consent. We and OUI would negotiate the milestone payments and any other payments that we would be obligated to pay to Isis with respect to such IP.

Wellcome Trust

In October 2012, we entered into a translation award funding agreement with The Wellcome Trust Limited, as trustee of the Wellcome Trust, to support a Phase 1 and a Phase 2 clinical trial of ridinilazole for the treatment of CDI. We refer to the translation award funding agreement as the translation award agreement. We refer to any compound or product that is covered by IP rights created under the translation award agreement or our prior agreement with the Wellcome Trust, or that is covered by IP rights to which we had rights prior to October 2009 and that relate to the activities under our agreements with the Wellcome Trust, as the award products.

In October 2017, we entered into a revenue sharing agreement with the Wellcome Trust as was required under the terms of the 2012 translational award agreement. Under the terms of the revenue sharing agreement: i) if we commercialize ridinilazole, the Wellcome Trust is eligible to receive a low-single digit percentage of net revenue (as defined in the translation award agreement), and a one-time milestone payment of a specified amount if cumulative net revenues exceed a specified amount; ii) if a third party commercializes ridinilazole, the Wellcome Trust is eligible to receive a mid-single digit percentage of the net revenues we receive from commercial sales by such third party, and a one-time milestone payment of a specified amount if cumulative net revenues we receive exceed a specified amount. In addition, following the first commercial sale by such third party, the Wellcome Trust is eligible to receive a one-time milestone payment equal to a low-single digit percentage of the aggregate amount of any pre-commercial payments we receive from third-party licensees prior to such commercial sale; and iii) in the event of an assignment or sale of the assets or intellectual property pertaining to ridinilazole, the net proceeds we receive from such assignment or sale would be treated as net revenue under the revenue sharing agreement.

Under the revenue sharing agreement, it was agreed that any development funding or grant funding we receive from BARDA or other third parties, including licensees, would not be classified as net revenue or as a pre-commercial payment. In addition, under the revenue sharing agreement, the Wellcome Trust agreed to terminate all of its rights under the translation award agreement to develop or commercialize the award products or the related intellectual property in specified markets and in specified indications, in the event that we were not developing or commercializing the award products or such intellectual property for such markets or in such indications.

Following the license and commercialization agreement entered into with Eurofarma, an initial payment became due to the Wellcome Trust payable only upon commercialization of ridinilazole. The Wellcome Trust also agreed to terminate all of its rights under the translation award funding agreement pertaining to the exploitation of intellectual property related to the CDI programme.

University College London

On March 23, 2010, we entered into a collaborative research agreement with the School of Pharmacy, University of London which was later novated on November 28, 2011 by the School of Pharmacy to University College London. As part of this agreement, and in consideration of their role in the development of the initial compound series from which ridinilazole was later identified, we agreed to pay the School of Pharmacy (now University College London) a low single-digit share of all revenue received by us in respect of ridinilazole, including any pre-commercial licensing revenue, up to a maximum of £1.0 million. Following the license and commercialization agreement entered into with Eurofarma, an initial payment became due to The School of Pharmacy and has been provided for at the year end date.

U.S. Not for Profit Organizations

Muscular Dystrophy Association

In December 2011, we entered into a grant agreement with the Muscular Dystrophy Association, Inc., or MDA, to partially fund a Phase 1 clinical trial of ezutromid to treat DMD. Under the terms of the grant agreement, we have agreed to make specified milestone payments to MDA during our or our affiliates' development and commercialization of pharmaceutical products containing the small molecules that can upregulate the utrophin gene, including ezutromid and compounds to which we have rights, which we refer to as the project products. Because we raised more than a specified aggregate amount of funding, we paid a specified sum to MDA under the terms of the grant agreement, which we refer to as the MDA cash infusion milestone payment. We have also agreed to pay MDA a specified lump sum amount, less any previously paid MDA cash infusion milestone payment, following the regulatory approval of any project product for use or sale in the United States or European Union for the treatment of DMD or Becker muscular dystrophy, or BMD, and an additional specified sum upon achievement of a commercial milestone. We would be obligated to pay MDA a low single digit percentage

royalty of worldwide net sales by us, our affiliates or licensees of any project product. If we assign our rights to any of the compounds subject to the grant agreement or experience specified change in control events, MDA may require our assignee to assume our obligations under the MDA grant agreement with respect to the assigned rights, or require us to pay MDA the greater of a low single digit percentage of the fair market value of the assigned rights, or an amount that would give MDA an internal rate of return of a low double digit percentage on its grant to us.

Duchenne Partners Fund

In December 2011, we entered into a grant agreement with the Duchenne Partners Fund, LLC, or DPF, to partially fund a Phase 1 clinical trial of ezutromid to treat DMD. Under the DPF grant agreement, we have agreed to make specified milestone payments to DPF during our or our affiliates' development and commercialization of pharmaceutical products containing the small molecules that can upregulate the utrophin gene, including ezutromid and compounds with similar mechanisms of action to which we have rights, which we refer to as project products. Because we raised more than a specified aggregate amount of funding, we paid a specified sum to DPF under the terms of the agreement, which we refer to as the DPF cash infusion milestone payment.

We have also agreed to pay DPF a specified lump sum amount, less any previously paid DPF cash infusion milestone payment, following the regulatory approval of any project product for use or sale in the United States or European Union for the treatment of DMD or BMD and an additional specified sum upon achievement of a commercial milestone. We would be obligated to pay DPF a low single digit percentage royalty of worldwide net sales by us, our affiliates or licensees of any project product. If we assign our rights to any of the compounds subject to the DPF grant agreement or experience specified change in control events, DPF may require our assignee to assume our obligations under the DPF grant agreement with respect to the assigned rights, or require us to pay DPF the greater of a low single digit percentage of the fair market value of the assigned rights, or an amount that would give DPF an internal rate of return of a low double digit percentage on its grant to us.

The total amount payable with respect to regulatory milestones under the U.S. not for profit organization agreements would be $2.5 million if we meet all regulatory milestones.

Other Contracts

In addition, we enter into contracts in the normal course of business with contract research organizations to assist in the performance of our research and development activities and other services and products for operating purposes. These contracts generally provide for termination on notice, and therefore are cancellable contracts and not included in the table of contractual obligations and commitments.

Off-Balance Sheet Arrangements

We do not have any, and during the periods presented we did not have any, off-balance sheet arrangements, other than the contractual obligations and commitments described above.

Jumpstart Our Business Startups Act of 2012

As a company with less than $1.07 billion in revenue during our last fiscal year, we qualify as an "emerging growth company" as defined in the Jumpstart our Business Startups Act of 2012, or the JOBS Act. An emerging growth company may take advantage of specified reduced reporting and other burdens that are otherwise applicable generally to public companies. These provisions include:

- an exemption from compliance with the auditor attestation requirement on the effectiveness of our internal controls over financial reporting;
- an exemption from compliance with any requirement that the Public Company Accounting Oversight Board may adopt regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure about the company's executive compensation arrangements; and
- exemptions from the requirements to obtain a non-binding advisory vote on executive compensation or a shareholder approval of any golden parachute arrangements.

We may take advantage of these provisions until January 31, 2021 or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company if we have more than $1.07 billion in annual revenues, have more than $700 million in market value of our share capital held by non-affiliates or issue more than $1 billion of non-convertible debt over a three-year period. We may choose to take advantage of some, but not all, of the available benefits under the JOBS Act. We have taken advantage of some reduced reporting burdens in this Annual Report. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold stock.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of some accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of delayed adoption of new or revised accounting standards and, therefore, we will be subject to the same requirements to adopt new or revised accounting standards as other public companies that are not emerging growth companies.

Item 6: Directors, Senior Management and Employees

A. Directors and Senior Management

The following table sets forth the names, ages and positions of our executive officers, key employees and directors as of the date of this Annual Report:

Name	Age	Position
Executive Officers		
Glyn Edwards	62	Chief Executive Officer, Executive Director
Erik Ostrowski	45	Chief Financial Officer
David Roblin	51	Chief Operating Officer, Chief Medical Officer and President of Research and Development
Key Employees		
Jonathon Tinsley	59	Chief Scientific Officer, DMD
Richard Vickers	42	Senior Vice President, Anti-Infectives
Non-Employee Directors		
Frank Armstrong[(2)(3)(4)]	61	Non-Executive Chairman
Barry Price[(3)(4)]	74	Non-Executive Director
Stephen Davies[(2)(3)(4)]	68	Non-Executive Director
Leopoldo Zambeletti [(1)(3)(4)]	49	Non-Executive Director
Valerie Andrews[(1)(2)(3)(4)]	58	Non-Executive Director
David Wurzer[(1)(3)(4)]	59	Non-Executive Director

(1) Member of the Audit Committee.
(2) Member of the Remuneration Committee.
(3) Member of the Nominating and Corporate Governance Committee.
(4) An “independent director” as such term is defined in Rule 10A-3 under the Exchange Act.

Executive Officers

Glyn Edwards has served as our Chief Executive Officer and a member of our board of directors since April 2012. Prior to joining our company, Mr. Edwards served as interim Chief Executive Officer of the BioIndustry Association, a U.K. trade organization, from November 2011 to June 2012, and Chief Executive Officer at Antisoma plc, a publicly traded biotechnology company specializing in the development of novel drugs for the treatment of cancer, from 1998 to 2011. Mr. Edwards also previously served as Vice President of Business Development at Therapeutic Antibodies Ltd. Mr. Edwards currently serves as a Non-Executive Director for OxSonics Limited, a U.K.-based ultrasound-based drug delivery company. Mr. Edwards received a BSc in Biochemistry from Bristol University and a MSc in Economics from the London Business School. We believe that Mr. Edwards is qualified to serve as a member of our board of directors because of his extensive executive leadership and business development experiences in the life sciences industry.

Erik Ostrowski has served as our Chief Financial Officer since June 2014. Prior to joining our company, Mr. Ostrowski served as Vice President of Finance at Organogenesis Inc., a biotechnology company, from 2010 to 2014. Prior to that, Mr. Ostrowski worked in investment banking, most recently as a Director with Leerink Partners LLC. Mr. Ostrowski began his career as an accountant with Coopers & Lybrand. Mr. Ostrowski received a BS in Accounting and Economics from Babson College and an MBA from the University of Chicago Booth School of Business.

David Roblin has served as our Chief Operating Officer, Chief Medical Officer and President of Research and Development since May 2017. He previously served as our Chief Operating Officer and President of Research and Development in a part-time capacity beginning in April 2017 and became full-time in June 2017. Dr. Roblin acted as a research and development adviser to us from 2014. Dr. Roblin has served as the Chief Operating Officer and Director of Scientific Translation at the Francis Crick Institute in London from 2014 to 2017. Prior to that, Dr. Roblin was Head of Research, Site Director and Chief Medical Officer for Europe R&D at Pfizer Inc. from 2008 to 2011 and was Head of Therapy Area for Anti-infectives at Bayer AG from 1997 to 1999. After Dr. Roblin left Pfizer Inc., he was Chief Medical Officer to a number of biotechnology companies including Creabilis SA where he held that role from 2011 until 2014. Dr Roblin has a degree in biochemistry from University College London and later qualified in medicine from St George's Hospital. He is a Fellow of the Royal College of Physicians and a Fellow of the Faculty of Pharmaceutical Medicine. He is an honorary Professor of Medicine at Swansea University and Professor of Translational Medicine at St George's. He is also a member of the board of directors of MedCity and Destiny Pharma Ltd. Before entering the life sciences industry, Dr Roblin practiced medicine for five years.

Key Employees

Jonathon Tinsley joined our company in April 2005 and has served as our Chief Scientific Officer, DMD, since October 2013. During his time with our company, Dr. Tinsley has overseen the development of our utrophin modulation program for the treatment of DMD from early discovery through to patient clinical trials. Dr. Tinsley previously worked in the laboratories of Professor Kay Davies at the University of Oxford. He is the co-author of over 35 peer reviewed scientific publications related to utrophin biology and the co-inventor on a number of patents related to utrophin biology. Prior to joining our company, Dr. Tinsley was the Head of Biology at Oxagen Limited and a Senior Research Fellow at the Medical Research Council. Dr. Tinsley received a Ph.D. in cancer studies from the University of Birmingham and a B.Sc. in microbiology from the University of Leeds.

Richard Vickers joined our company in 2003 and has served as our Senior Vice President, Anti-Infectives, since February 2018. Prior to this date, and from October 2013, Dr. Vickers had previously served as our Chief Scientific Officer, Antimicrobials. During his time at our company, Dr. Vickers has worked in a variety of roles involved in the development and management of various antibacterial therapeutic programs, including our antibiotic program for the treatment of CDI. Prior to joining our company, Dr. Vickers undertook postdoctoral research studies with Professor Stephen Davies at the University of Oxford and held a Stipendiary Lectureship in organic chemistry at St. Catherine's College in Oxford. Dr. Vickers received a Ph.D. in organic chemistry from the University of Reading and a B.Sc. in chemistry from King's College London.

Non-Employee Directors

Frank Armstrong has served as a member of our board of directors since November 2012 and Non-Executive Chairman since June 2013. Dr. Armstrong is currently President of Dr. Frank M Armstrong Consulting Limited, a position he has held since 2012. Prior to this, Dr. Armstrong led Medical Science and Innovation at Merck Serono, the biopharmaceutical division of Merck KGaA, from 2010 to 2011. Dr. Armstrong was also Head of Worldwide Product Development at Bayer AG from 1998 to 2001 and held various positions at ICI plc and Zeneca plc, now AstraZeneca plc, from 1985 to 1998. Dr. Armstrong has served as the Chief Executive Officer at five biotechnology companies, including Fulcrum Pharma plc, which is listed on AIM, CuraGen Corporation, a Nasdaq-listed company that was acquired by Celldex Therapeutics, Inc., Bioaccelerate Holdings Inc., Provensis Ltd. and Phoqus Pharmaceuticals plc. Dr. Armstrong is the Non-Executive Chairman of Faron Pharmaceuticals Oy and Caldan Therapeutics Ltd; a Non-Executive Director of Mereo Biopharma Group plc; and a Member of the Strategic Advisory Board of HealthCare Royalty Partners and Epidarex Capital. Dr. Armstrong served as Non-Executive Director of Juniper Pharmaceuticals Inc. from 2013 to 2017. Dr. Armstrong received an honors degree in Biochemistry and an MBChB(MD) in Medicine from the University of Edinburgh in Scotland. He is a Fellow of the Royal College of Physicians, Edinburgh and a Fellow of the Faculty of Pharmaceutical Physicians. We believe that Dr. Armstrong is qualified to serve on our board of directors because of his extensive experience in the biotechnology industry and his medical background.

Barry Price has served as a member of our board of directors since September 2006. Dr. Price spent 28 years with the Glaxo Group of companies, where he held several executive positions including, Managing Director of Glaxochem Ltd. from 1993 to 1995 and Research Director of Glaxo Group Research from 1989 to 1993. Dr. Price also served as a Non-Executive Director of Shire plc, a biopharmaceutical company that is listed on the London Stock Exchange and Nasdaq, from 1996 to 2009, during which time he was involved in developing the company into one of the U.K.'s largest life sciences companies. Dr. Price has previously held directorships at Chiroscience plc, Celltech Group plc, Pharmagene plc, Antisoma plc, and BioWisdom Ltd. Dr. Price received a BSc in chemistry and a Ph. D. in chemistry from the University of Sheffield, and he is a Fellow of the Royal Society of Chemistry. We believe Dr. Price is qualified to serve on our board of directors because of his extensive experience in the pharmaceutical and life sciences industries.

Stephen Davies has served as a member of our board of directors since November 2013 and previously served as a member of our board of directors from 2004 to February 2013. Professor Davies has been a professor at the University of Oxford since 1996 and was appointed Waynflete Professor of Organic Chemistry and Fellow of Magdalen College in 2006. Professor Davies' areas of expertise include medicinal and asymmetric chemistry. He has published extensively and received numerous awards in his field. Professor Davies co-founded our company, as well as other University of Oxford spin-out companies. He was the founder and Non-Executive Chairman of MuOx Limited and OxRay Ltd and Non-Executive Chairman of Scientific Research Capital Ltd.; is a founder and Non-Executive Director of the Oxstem group of companies; and is a Non-Executive Director of Oxford University Innovation Ltd. Professor Davies received a BA in Chemistry from the University of Oxford, a D.Phil in Organic Chemistry from the University of Oxford, and a D.Sc. in Organic Chemistry from the University of Paris. We believe Professor Davies is qualified to serve on our board of directors because of his extensive experience as an academic and entrepreneur in the biopharmaceutical industry.

Leopoldo Zambeletti has served as a member of our board of directors since May 2014. Mr. Zambeletti has served as an independent strategic advisor to life sciences companies since 2013, focusing on mergers and acquisitions, out-licensing deals and financing strategy. Prior to this, Mr. Zambeletti worked in investment banking for 19 years, during which time he led the European Healthcare Investment teams at JP Morgan and at Credit Suisse. He is a Non-Executive Director of Nogra Pharma Ltd., Faron Pharmaceuticals Oy, DS Biopharma Ltd (formerly known as Dignity Services Ltd), Overjoy S.R.L and Tiziana Life Sciences plc and an advisor and co-founder to the US medtech company Qardio. Mr. Zambeletti began his career as an accountant at KPMG. He received his degree in Business Administration from Bocconi University. We believe Mr. Zambeletti is qualified to serve on our board of directors because of his extensive experience in the finance and life sciences industries.

Valerie Andrews has served as a member of our board of directors since September 2014. Most recently, Ms. Andrews served from May 2011 until May 2014 as General Counsel at Vertex Pharmaceuticals Incorporated, a biopharmaceutical company focused on small molecule therapies for cystic fibrosis and other indications. From 2002 to May 2011, Ms. Andrews served in various legal roles at Vertex, including as Deputy General Counsel and Chief Compliance Officer. Prior to joining Vertex, Ms. Andrews was the Executive Director of Licensing for Massachusetts General Hospital and Brigham and Women's Hospital from September 2001 to March 2002. From 1989 to 2001, Ms. Andrews served as a corporate lawyer at Hill & Barlow PC, where she became a partner in 1997. In her professional roles, Ms. Andrews has garnered expertise in areas including corporate strategy, strategic transactions, corporate governance, executive compensation, risk management, and compliance. Ms. Andrews served as a Non-Executive Director of Juniper Pharmaceuticals Inc. (formerly Columbia Laboratories) from 2005 until 2015. Ms. Andrews received a B.A. in Chemistry and Psychology from Duke University and a J.D. from Boston College. We believe Ms. Andrews is qualified to serve on our board of directors because of her extensive skills in business and legal matters related to the pharmaceuticals industry.

David M. Wurzer has served as a member of our board of directors since February 2015. Mr. Wurzer is currently the Executive Vice President and Chief Investment Officer at Connecticut Innovations, a state-funded venture capital fund, where he previously served as Senior Managing Director and Managing Director. Prior to joining Connecticut Innovations in November 2009, Mr. Wurzer served as Executive Vice President, Treasurer and Chief Financial Officer at CuraGen Corporation from 1997 to 2008. He also held numerous positions at Value Health Inc. from 1991 to 1997, including Senior Vice President, Treasurer and Chief Financial Officer. Mr. Wurzer is a Non-Executive Director of Standard Diversified Opportunities, Inc., Thetis Pharmaceutical LLC, My Gene Counsel LLC, Natural Polymer Devices Inc. and ReNetX Bio, Inc. (formerly known as Axerion Therapeutics, Inc.); from 2010 to 2012 he was a Non-Executive Director of DUSA Pharmaceuticals, Inc. and from 2010 to 2015 he was a Non-Executive Director of Response Genetics Inc. Mr. Wurzer is a Certified Public Accountant and began his career with Coopers & Lybrand, which is now part of PricewaterhouseCoopers. He received a B.B.A. from the University of Notre Dame. We believe Mr. Wurzer is qualified to serve on our board of directors because of his extensive experience in the pharmaceutical and biotechnology industries and his finance and accounting background.

B. Compensation

The following discussion provides the amount of compensation paid, and benefits in kind granted, by us and our subsidiaries to our current directors and executive officers for services provided in all capacities to us or our subsidiaries for the year ended January 31, 2018, as well as the amount contributed by us into money purchase plans for the year ended January 31, 2018 to provide pension benefits to our current directors and executive officers.

Directors' and Executive Management Compensation

For the year ended January 31, 2018, the table below sets out the compensation paid to our current directors and executive officers.

Compensation for Year Ended January 31, 2018 for Current Directors and Executive Management

Name	Salary and Bonus / Fees	Taxable Benefits[1]	Pension Benefit	Total
Glyn Edwards *Chief Executive Officer and Executive Director*	£ 609,000	£ 1,359	£ 18,270	£ 628,629
Erik Ostrowski *Chief Financial Officer*	$ 640,000	—	$ 17,741	$ 657,741
David Roblin *Chief Operating Officer, Chief Medical Officer and President of Research & Development*	£ 436,442	£	£ 14,100	£ 450,542
Frank Armstrong *Non-Executive Chairman*	£ 75,000	£ 2,804	—	£ 77,804
Barry Price *Non-Executive Director*	£ 38,195	£ 2,793	—	£ 40,988
Stephen Davies *Non-Executive Director*	£ 40,000	—	—	£ 40,000
Leopoldo Zambeletti *Non-Executive Director*	£ 36,805	£ 587	—	£ 37,392
Valerie Andrews *Non-Executive Director*	£ 58,587	£ 2,108	—	£ 60,695
David Wurzer *Non-Executive Director*	£ 50,978	£ 2,484	—	£ 53,462

(1) Taxable benefits represent the value of the personal benefits granted, which include private medical insurance and life assurance for executive officers and travel costs (and associated income tax and national insurance contributions which were settled on behalf of the Non-Executive Directors) for attendance at board meetings for the Non-Executive Directors. Amounts included are based on the taxable benefits reported in the year ended January 31, 2018 to HM Revenue & Customs.

Total compensation set out in the table above does not include any amounts for the value of options to acquire our ordinary shares or restricted stock units granted to or held by the directors and executive management, which is described in "Compensation—Outstanding Equity Awards, Grants and Option Exercise" in this Annual Report.

Bonuses

Our Executive Director, Chief Financial Officer and Chief Operating Officer, Chief Medical Officer and President of R&D are eligible for annual bonuses at the discretion of our board and, in the case of our Executive Director, our remuneration committee. Annual bonuses are based on achievement of strategic and financial measures and personal performance objectives. Our Executive Director, Mr. Edwards is eligible for annual bonus potential of 150% of his gross base salary to be paid in share options, cash or a combination of both at the discretion of our board. On January 31, 2018, Mr. Edwards was awarded a bonus representing 100% of his gross base salary, which was paid in cash in February 2018. Mr. Ostrowski, our Chief Financial Officer, is eligible for a discretionary annual bonus in an amount up to 50% of his annual base salary, as determined by our board of directors. On January 31, 2018, Mr. Ostrowski was awarded a bonus representing 60% of his annual base salary at the discretion of the board. The bonus was paid in cash in February 2018. Dr. Roblin, our Chief Operating Officer, Chief Medical Officer and President of R&D, is eligible for a discretionary annual bonus in an amount up to 50% of his annual base salary, as determined by our board of directors. On January 31, 2018, Dr. Roblin was awarded a bonus representing 60% of his annual base salary at the discretion of the board. The bonus was paid in cash in February 2018.

Outstanding Options As of January 31, 2018 for Current Directors and Executive Management

Outstanding Equity Awards, Grants and Option Exercise

During the year ended January 31, 2018, options to purchase 1,752,283 ordinary shares were awarded to our current directors and executive officers. The table below sets out information on outstanding options granted to our current directors and executive officers as of January 31, 2018.

Name	Date of grant	At February 1, 2017	Granted during the period	Lapsed during the period	At January 31, 2018	Price per share (£)	Date from which exercisable	Expiration date
Glyn Edwards	May 10, 2012	150,046	—	—	150,046	0.60	Note 1	May 10, 2022
Chief Executive Officer and Executive Director	May 10, 2012	657,500	—	(657,500)	—	0.60	Note 2	May 10, 2022
	January 31, 2013	72,973	—	—	72,973	0.20	Note 3	January 31, 2023
	December 18, 2013	76,364	—	—	76,364	0.20	Note 4	December 18, 2023
	July 15, 2014	600,000	—	—	600,000	1.26	Note 5	July 15, 2024
	June 16, 2015	887,333	—	—	887,333	1.43	Note 6	June 16, 2025
	June 23, 2016	110,576	—	—	110,576	0.01	Note 7	June 23, 2026
	April 11, 2017	—	762,764	—	762,764	1.85	Note 8	April 11, 2027
	July 18, 2017	—	135,478	—	135,478	1.83	Note 9	July 18, 2027
	October 24, 2017	—	198,776	—	198,776	1.80	Note 10	October 24, 2027
		2,554,792	1,097,018	(657,500)	2,994,310			
Erik Ostrowski	June 23, 2014	400,000	—	—	400,000	1.48	Note 11	June 23, 2024
Chief Financial Officer	June 16, 2015	400,000	—	—	400,000	1.43	Note 6	June 16, 2025
	June 23, 2016	250,000	—	—	250,000	1.05	Note 12	June 23, 2026
	July 18, 2017	—	68,062	—	68,062	1.83	Note 9	July 18, 2027
	October 24, 2017	—	98,495	—	98,495	1.80	Note 10	October 24, 2027
		1,050,000	166,557	—	1,216,557			
David Roblin	July 15, 2014	100,000	—	—	100,000	0.80	Note 5	July 15, 2024
Chief Operating Officer, Chief Medical Officer and President of R&D	June 16, 2015	25,000	—	—	25,000	1.43	Note 6	June 16, 2025
	June 23, 2016	17,500	—	—	17,500	1.05	Note 7	June 23, 2026
	April 11, 2017	—	324,324	—	324,324	1.85	Note 8	April 11, 2027
	July 18, 2017	—	164,384	—	164,384	1.83	Note 9	July 18, 2027
		142,500	488,708	—	631,208			
Barry Price	April 7, 2011	13,981			13,981	0.65	Note 13	April 7, 2021
Non-Executive Director	July 15, 2014	17,500	—	—	17,500	1.26	Note 5	July 15, 2024
	June 16, 2015	25,000	—	—	25,000	1.43	Note 6	June 16, 2025
		56,481	—	—	56,481			
Frank Armstrong	July 15, 2014	37,500	—	—	37,500	1.26	Note 5	July 15, 2024
Non-Executive Director	June 16, 2015	50,000	—	—	50,000	1.43	Note 6	June 16, 2025
		87,500	—	—	87,500			
Stephen Davies	July 15, 2014	17,500	—	—	17,500	1.26	Note 5	July 15, 2024
Non-Executive Director	June 16, 2015	25,000	—	—	25,000	1.43	Note 6	June 16, 2025
		42,500	—	—	42,500			
Leopoldo Zambeletti	June 23, 2014	25,000	—	(25,000)	—	1.48	Note 14	June 23, 2024
Non-Executive Director	June 16, 2015	25,000	—	—	25,000	1.43	Note 6	June 16, 2025
		50,000	—	(25,000)	25,000			
Valerie Andrews *Non-Executive Director*	December 23, 2014	25,000	—	(25,000)	—	1.37	Note 15	December 23, 2024
	June 16, 2015	25,000	—	—	25,000	1.43	Note 6	June 16, 2025
		50,000	—	(25,000)	25,000			
David Wurzer *Non-Executive Director*	June 16, 2015	25,000	—	—	25,000	1.43	Note 6	June 16, 2025
		25,000	—	—	25,000			

During the year ended January 31, 2018, restricted stock units in the form of nominal cost options, or RSUs, to purchase 278,577 ordinary shares were awarded to our current non-executive directors. The table below sets out information on outstanding RSUs granted to our current non-executive directors as of January 31, 2018.

Name	Date of grant	At February 1, 2017	Granted during the period	Lapsed during the period	At January 31, 2018	Price per share (£)	Date from which exercisable	Expiration date
Barry Price	June 18, 2017	—	19,179	—	19,179	0.01	Note 16	December 31, 2018
Non-Executive Director	October 24, 2017	—	19,444	—	19,444	0.01	Note 17	December 31, 2018
		—	38,623	—	38,623			
Frank Armstrong	June 18, 2017	—	41,096	—	41,096	0.01	Note 16	December 31, 2018
Non-Executive Director	October 24, 2017	—	41,666	—	41,666	0.01	Note 17	December 31, 2018
		—	82,762	—	82,762			
Stephen Davies	June 18, 2017	—	19,179	—	19,179	0.01	Note 16	December 31, 2018
Non-Executive Director	October 24, 2017	—	19,444	—	19,444	0.01	Note 17	December 31, 2018
		—	38,623	—	38,623			
Leopoldo Zambeletti	June 18, 2017	—	19,179	—	19,179	0.01	Note 16	December 31, 2018
Non-Executive Director	October 24, 2017	—	19,444	—	19,444	0.01	Note 17	December 31, 2018
		—	38,623	—	38,623			
Valerie Andrews	June 18, 2017	—	19,179	—	19,179	0.01	Note 16	December 31, 2018
Non-Executive Director	October 24, 2017	—	19,444	—	19,444	0.01	Note 17	December 31, 2018
		—	38,623	—	38,623			
David Wurzer	June 18, 2017	—	19,179	—	19,179	0.01	Note 16	December 31, 2018
Non-Executive Director	October 24, 2017	—	19,444	—	19,444	0.01	Note 17	December 31, 2018
		—	38,623	—	38,623			

1. These options became exercisable on May 10, 2015 due to the satisfaction of the performance conditions relating to the share price. In order to vest in full, the average closing share price needed to be equal to or greater than £2.20 for the two months preceding the third anniversary of the date of the grant, 25% would vest where the average closing share price was £1.40 and pro-rated where the average closing share price was between £1.41 and £2.19. The options lapsed if the performance condition relating to our average closing share price was not met by the third anniversary of the date of grant. On measurement, 150,046 options have vested and 77,454 options have lapsed. No options were exercised in the year.
2. These options were split into four tranches with varying performance conditions and would only vest if the average closing share price had been equal to or greater than the specified condition in any period of 60 consecutive calendar days, ending on or before the fifth anniversary of the date of grant. Details of the tranches are as follows: 207,500 with a performance condition based on an average closing share price of £4.00; 200,000 with a performance condition based on an average closing share price of £6.00; 150,000 with a performance condition based on an average closing share price of £8.00; and 100,000 with a performance condition based on an average closing share price of £10.00. The options lapsed as the performance conditions were not met by the fifth anniversary of the date of grant.
3. These deferred bonus options vested and became exercisable on July 31, 2013. These options were awarded as a bonus for the financial year ended January 31, 2013.
4. These deferred bonus options vested and became exercisable on June 18, 2014. These options were awarded as a bonus for the financial year ended January 31, 2014 representing 70% of Mr. Glyn Edwards' gross basic salary for that financial year.
5. These options vested on March 13, 2017 as the average closing share price was equal to or greater than £1.89 in a period of 30 consecutive days during the period from the date of the grant to the third anniversary of the date of the grant. One third of the options became exercisable on March 13, 2017, following the second anniversary of the date of grant and the remaining options became exercisable on July 15, 2017, the third anniversary of the date of grant.
6. These options vest if the average closing share price is equal to or greater than £2.145 in any period of 30 consecutive days during the period from the date of the grant to June 16, 2018. Once vested, a third of the options can be exercised on or after June 16, 2017 and all of the options, if vested, can be exercised on or after June 16, 2018. These options will lapse if the performance condition is not met by June 16, 2018. In April 2018, all Non-Executive Directors surrendered these awards.
7. These deferred bonus options vested and became exercisable on July 21, 2016. These options were awarded in part settlement of the bonus for the financial year ended January 31, 2016 representing 50% of Mr. Glyn Edwards' gross basic salary for that financial year.

8. These options achieved the performance conditions during the financial year pertaining to corporate and program development milestones. Accordingly, these options will vest in full on June 23, 2019.
9. These options are subject to achievement of performance conditions pertaining to corporate and program development milestones. These options will vest in full on the third anniversary of the date of grant.
10. These options are subject to achievement of performance conditions pertaining to corporate and program development milestones. These options will vest in full on the third anniversary of the date of grant.
11. These options vest and become exercisable in the following proportions, assuming the average closing share price of our ordinary shares on AIM during the two months prior to each relevant vesting date is £2.213 or higher: 25% on the second anniversary of the date of grant, 75% on the third anniversary of the date of grant and 100% on the fourth anniversary of the date of grant. These options will lapse if the performance condition is not met by the fourth anniversary of the date of grant.
12. These options will vest in full on June 23, 2019 subject to achievement of performance conditions pertaining to certain corporate and program development milestones. These options will lapse in full if the performance conditions are not met by June 23, 2019.
13. These options were capable of vesting and exercise on or after April 8, 2014 subject to the satisfaction of performance conditions relating to our share price. In order to vest in full, the average closing share price would have had to exceed £3.00 over the two months ending April 7, 2014. If the performance conditions were not satisfied in full, or in part, the options would lapse in respect of those option shares that did not vest. The performance period has now passed and, accordingly, only 13,981 options have vested and 11,019 options lapsed. These options were awarded to Dr. Price whilst he was interim Executive Chairman.
14. These options failed to meet the performance condition being (i) completion of Phase 2 proof of concept trials in both the Duchenne muscular dystrophy and *Clostridium difficile* infection programmes or the third anniversary of the date of grant, whichever was sooner and (ii) the average closing share price being equal to or greater than £2.213 in any period of 30 consecutive days ending on or before the third anniversary of the date of grant. These options have now lapsed.
15. These options failed to meet the performance condition being the average closing share price being equal to or greater than £2.055 in any period of 30 consecutive days during the period from the date of the grant to September 18, 2017. These options have now lapsed as the performance condition was not met by September 18, 2017.
16. These RSUs are in the form of nominal cost options with no performance conditions and no risk of forfeiture. These RSUs vest and become exercisable on the first anniversary of the date of grant. Amount awarded represents a face value with one times the base fee for Non-Executive Directors (the flat fee for the Chairman). The amount represented in the table is the face value of the award calculated on the day of the award (which can differ slightly to the point at which the amount was calculated if the award was made the following day) minus the exercise price of £0.01 per share. Award expires on December 31, 2018, unless this falls within a restricted trading period, in which case it is expected that the award would be exercised in the next available trading period and no later than December 31, 2019.
17. These RSUs are in the form of nominal cost options with no performance conditions and no risk of forfeiture. These RSUs vest and become exercisable on the first anniversary of the date of grant. Amount awarded represents a face value with one times the base fee for Non-Executive Directors (the flat fee for the Chairman). The amount represented in the table is the face value of the award calculated on the day of the award (which can differ slightly to the point at which the amount was calculated if the award was made the following day) minus the exercise price of 1 penny per share. Award expires on 31 December 2018, unless this falls within a restricted trading period, in which case it is expected that the award would be exercised in the next available trading period and no later than December 31, 2019. This is the postponed equity award from the financial year ended January 31, 2017 as we ended our practice of making annual share option awards to Non-Executive Directors.

We periodically grant share options to employees, including executive officers, to incentivize employees, and align their interests with shareholders. We intend to grant additional options subject to a cap, as previously agreed with shareholders, of up to 15% of total issued share capital in any ten-year period.

Pension Benefits

We operate a defined contribution pension scheme which is available to all employees of our group. For the year ended January 31, 2018, we paid a total of £32,370 in lieu of pension contributions in respect of our Executive Director. In addition, for the year ended January 31, 2018, we made payments of $17,741 into our Chief Financial Officer's 401(k) plan.

Employment Agreements and Letters of Appointment

Non-Executive Directors

Our non-executive directors have each entered into a letter of appointment with us. Each non-executive director's letter of appointment provides for a continuous term for each non-executive director until termination of the letter of appointment. The letters of appointment automatically terminate if the relevant non-executive director is not re-elected to office by the

shareholders, is removed from office by a resolution of the shareholders, vacates his or her office, is adjudged bankrupt or enters into any composition or arrangement with his or her creditors, is guilty of misconduct or commits a serious persistent breach of his or her appointment letter, or is unable to perform his or her duties under the appointment for 90 days in aggregate in any period of 12 months. The letters of appointment may also be terminated by mutual agreement or effective immediately upon written notice by one party to the other at any time. Each letter of appointment also includes confidentiality provisions for the protection our confidential information.

Each non-executive director, with the exception of Dr. Armstrong, Mr. Wurzer and Ms. Andrews, received £35,000 per annum for payment for services provided to us. Dr. Armstrong receives £75,000 per annum, which includes payment for services as chairman of our board of directors. Mr. Wurzer receives $67,000 per annum and Ms. Andrews receives $77,000 per annum, in each case, as payment for services provided to us and includes payment for services as chair of the audit and remuneration committees. respectively. Mr. Zambeletti and Professor Davies each receive an additional £5,000 per annum for each committee they sit on. Under the letters of appointment, each non-executive director is also entitled to reimbursement for all reasonable expenses incurred in connection with his or her duties as a non-executive director and that are in line with our expense policy.

Executive Director

Glyn Edwards, Chief Executive Officer

Mr. Edwards was appointed as the chief executive officer by a service agreement dated April 4, 2012 which continues unless terminated by us with six months' written notice or by Mr. Edwards with six months' written notice. We may also terminate the agreement with immediate effect by paying a sum in lieu of notice equal to the basic fixed salary which Mr. Edwards would have been entitled to receive during the notice period (and which shall not include payment in respect of benefits). We may otherwise terminate the agreement with immediate effect at any time without notice or payment in lieu of notice for certain circumstances including material breach of the agreement, serious misconduct, serious incompetence or negligence, criminal convictions or bankruptcy. The agreement includes a garden leave clause for a maximum of two months and there is no provision for compensation in addition to the contractual notice period.

Under his service agreement, Mr. Edwards initially received a salary of £200,000 per annum payable in arrears by equal monthly installments plus reasonable expenses. Effective in February 2018, Mr. Edwards' salary increased to £313,635 per annum. Mr. Edwards' service agreement also provides for a monthly pension contribution equal to 7.0% of salary, private medical cover (including cover for his spouse) and life assurance (for four times his gross salary). A share option package, as agreed by the chairman of our remuneration committee, will be awarded to Mr. Edwards subject to the rules of our share option scheme. Under his service agreement Mr. Edwards is prohibited from engaging in any type of business in competition with the business of our group, procuring orders from or doing business with any person who has done or proposed to do business with our group, and endeavouring to entice away from our group any senior manager or director engaged by our group, for a period of 12 months from the date of termination of his agreement. Mr. Edwards is also subject to confidentiality and protection of intellectual property provisions.

Executive Management

Erik Ostrowski, Chief Financial Officer

Mr. Ostrowski was appointed as the chief financial officer pursuant to a letter of employment with Summit Therapeutics Inc. dated May 29, 2014 which continues unless terminated by either party at any time with or without notice. Under his letter of employment, Mr. Ostrowski initially received a salary of $330,000 per annum and also received a signing bonus of $50,000. Effective in February 2018, Mr. Ostrowski's salary increased to $412,000 per annum.

Mr. Ostrowski is eligible to receive a discretionary bonus in an amount up to 50% of his annual base salary, as determined by our board of directors. Under his letter of employment, Mr. Ostrowski is reimbursed for medical, dental, vision, life and disability insurance coverage up to an aggregate monthly sum of $1,667 until such time as a group insurance policy is established and is paid a monthly bonus amount of $1,650 until such time as a retirement savings plan for the employees of Summit Therapeutics Inc. is established. As Summit Therapeutics Inc. has implemented a group insurance policy and a retirement savings plan for its employees, Mr. Ostrowski is no longer entitled to these reimbursements. In the event that Mr. Ostrowski's employment is terminated without good cause, he shall receive a severance payment equal to six months of his then-annual base salary plus the value of six months of benefits. Good cause includes willful misconduct, willful or gross neglect of job duties and unauthorized use or disclosure of the group's confidential information.

Mr. Ostrowski has also entered into a confidentiality, inventions, non-compete and non-solicitation agreement dated June 16, 2014 in favor of our group for the protection of our confidential information and intellectual property. Pursuant to that agreement Mr. Ostrowski has also agreed to non-compete and non-solicitation obligations for a period of 12 months following termination of his employment.

David Roblin, Chief Operating Officer, Chief Medical Officer and President of Research and Development

Dr. Roblin was appointed as the chief operating officer and president of research and development pursuant to a letter of employment with Summit (Oxford) Limited dated November 25, 2016 which became effective on December 16, 2017 and continues unless terminated by either party at any time with or without notice. In May 2017 Dr. Roblin assumed the role of Chief Medical Officer. Under his letter of employment, Dr. Roblin initially received a salary of £300,000 per annum, and he is also entitled to an additional £30,000 per annum for the purposes of assuring a second place of residence near Oxford. Effective in February 2018, Dr. Roblin's salary increased to £309,000 per annum.

Dr. Roblin's employment agreement provides for a monthly pension contribution (or payments in lieu thereof) equal to 7.0% of salary, private medical coverage for him and his spouse and life insurance coverage equal to an amount that is four times his gross base salary. Pursuant to the employment agreement, a share option package equal to twice his base salary, as agreed by the chairman of our remuneration committee, was awarded to Dr. Roblin after he began working for us full-time . Under his employment agreement Dr. Roblin is prohibited from engaging in any type of business in competition with the business of our group, procuring orders from or doing business with any person who has done or proposed to do business with our group, and endeavouring to entice away from our group any senior manager or director engaged by our group, for a period of 6 months from the date of termination of his letter of employment. Dr. Roblin is also subject to confidentiality and protection of intellectual property obligations under his employment letter.

Dr. Roblin is eligible to receive a discretionary bonus in an amount up to 50% of his annual base salary and an annual share option award subject to performance conditions, in each case, as determined by our board of directors.

Equity Compensation Arrangements

2016 Long Term Incentive Plan

Our 2016 Long Term Incentive Plan, which we refer to as the Incentive Plan, was adopted on January 21, 2016. Under the Incentive Plan our board may grant conditional awards, options, cash conditional awards and cash options to any of our employees, including executive directors, and the employees of our subsidiaries. The Incentive Plan is administered by our board, which has full authority, consistent with the Incentive Plan, to administer the Incentive Plan, including the authority to interpret and construe any provision of the Incentive Plan and to adopt regulations for administering the Incentive Plan. Decisions of the board are final and binding on all parties. References to our board in this summary shall include any duly authorized committee of our board.

Our board may grant awards to any employees eligible to receive awards under the Incentive Plan in its discretion, subject to the rules of the Incentive Plan and such additional terms as the board may determine. However, the grant of an award is subject to obtaining any approval or consent required by any relevant authority and any other applicable laws or regulations. Awards must be granted by deed (or in such other written form as the board determines) and, as soon as reasonably practicable after the date on which an award is granted, the participant must be notified of the terms of his or her award.

A conditional award is a right to acquire shares subject to and in accordance with the rules of the Incentive Plan with no exercise period. An option is a right to acquire shares subject to and in accordance with the rules of the Incentive Plan during a specified exercise period not to exceed ten years from the date the option is granted. A cash conditional award is a right to receive a cash payment equal to the market value (as determined by the board) of a number of notional shares underlying the vested portion of the award on the vest date. A cash option is a right to receive a cash payment equal to the market value (as determined by the board) of a number of notional shares underlying the vested portion of the award the date of exercise less the aggregate exercise price payable (if any).

Vesting of Awards

Unless the board determines otherwise, the vesting of an award granted under the Incentive Plan is subject to the satisfaction of a performance condition. Subject to the terms of the Incentive Plan that apply upon a cessation of a participant's employment and upon certain corporate events, the performance condition will be measured over the performance period which, unless the board determines otherwise, will be at least three years. Performance conditions may be amended or substituted by the board if one or more events occur which cause the board to consider that an amended or substituted performance condition would be more appropriate and would not be materially less difficult to satisfy than the original performance condition to which the award was subject.

As soon as reasonably practicable after the end of the performance period relating to an award that is subject to a performance condition, our board will determine if and to what extent the performance condition has been satisfied. To the extent that the performance condition has not been satisfied in full, the remainder of the award will lapse immediately. Subject to the terms of the Incentive Plan that apply upon a cessation of a participant's employment and upon certain corporate events, an award that is subject to a performance condition will vest on the later of the date on which the board

determines that the performance condition has been satisfied and the third anniversary of the date of grant of the award (or such other date determined by the board and communicated to the participant). An award that is not subject to the satisfaction of a performance condition will vest on the third anniversary of the date of grant (or such other date determined by the board and communicated to the participant). We refer to the date on which an award would normally vest, whether or not it is subject to the achievement of a performance condition, as the normal vesting date. Notwithstanding the foregoing, if there are share dealing restrictions (imposed by the company's share dealing code, the rules of the London Stock Exchange, or any other applicable laws or regulations) on the applicable normal vesting date, the award will vest on the date the dealing restrictions are lifted.

The Incentive Plan provides that if a participant dies prior to the date on which an award vests, a number of shares subject to such award will, unless the board determines otherwise, vest as soon as practicable following the participant's death. The number of shares that vest in such circumstance will depend, unless the board determines otherwise, on the extent to which any applicable performance condition has been satisfied at the date of death and the period of time that has elapsed since the start of the applicable performance period or, if the award is not subject to a performance condition, since the date of grant of the award, or such other period as the board determines. To the extent that an award does not vest in full, the remainder will lapse immediately.

In addition, the Incentive Plan provides that if a participant ceases to hold office or employment with any group member (as such term is defined in the Incentive Plan) prior to the date on which an award vests as a result of ill-health, injury or disability; redundancy or retirement; upon the company for which the participant works ceasing to be a group member or the transfer of an undertaking or part-undertaking in which the participant is employed to a company not in our group; or any other reason at the board's discretion (except where a participant is summarily dismissed), the board may determine that an award will vest as soon as practicable following the date of the participant's cessation of office or employment (or on such other date as determined by the board). Otherwise, the award will vest on the normal vesting date. In either case, the number of shares that will vest will depend, unless the board determines otherwise, on the extent to which any applicable performance condition has been satisfied at the date of cessation of office or employment and the period of time that has elapsed since the start of the applicable performance period or, if the award is not subject to a performance condition, since the date of grant of the award, or such other period as the board determines. To the extent that an award does not vest in full, the remainder will lapse immediately. If a participant ceases to hold office or employment with a group member for any other reason prior to the vesting date, his or her award will lapse at such time.

Exercise of Options

Generally, options must be exercised while the participant holds office or employment with a member of our group. In the event, however, that a participant ceases to hold office or employment with a member of our group as a result of ill-health, injury or disability; redundancy or retirement; upon the company for which the participant works ceasing to be a member of our group or the transfer of an undertaking or part-undertaking in which the participant is employed to a company not in our group; or any other reason at the board's discretion (except where a participant is summarily dismissed) prior to the date on which the award becomes exercisable, the option may be exercised, subject to it lapsing upon certain corporate events, for a period of six months (or such other period as the board may determine) commencing on the date the award vests (as described above). If a participant ceases to hold office or employment with a member of our group on or after the vesting date of the option as a result of the participant's resignation or an event described in the preceding sentence on or after the date on which the award becomes exercisable, the option may be exercised, subject to it lapsing upon certain corporate events, for a period of six months (or such other period as the board may determine) from the date of such cessation.

If a participant dies before his or her vested option has been exercised, the participant's personal representatives may exercise the option for 12 months (or such other period as the board may determine) after the later of the date of the participant's death and the date on which the award becomes exercisable.

All awards lapse in prescribed circumstances, including upon the tenth anniversary of the date of grant; the expiry of the period (if any) allowed for the satisfaction of any performance condition without such condition having been satisfied; on the day on which a participant ceases to hold office or employment with a group member (with the exception of the carve outs detailed in the Incentive Plan and described above); the expiry of the period during which an option may be exercised following the participant's death or cessation of office or employment with a group member; on the bankruptcy of the participant; or at such time the participant attempts to transfer, assign, charge or otherwise dispose of his or her award in any way (other than in the event of the participant's death, to his personal representatives).

Dividend Equivalent

The board may decide at any time prior to the issue or transfer of the shares in respect of an award that has vested that the participant will receive an amount (in cash and/or additional shares) equal in value to any dividends that would have been paid on those shares on such terms and over such period (ending no later than the vesting date of the award) as the board may determine. This amount may assume the reinvestment of dividends (on such basis as the board may determine) and may exclude or include special dividends.

Cash Equivalent/Net Settlement

Unless our board has determined that this rule will not apply to all or any portion of an award, at any time prior to the date on which shares in respect of an award that has been vested or exercised have been issued or transferred to a participant, the board may determine that the participant will receive (i) in lieu of ordinary shares, a cash payment equal to the market value (as determined by the board) of the number of shares that would otherwise have been issued or transferred to the participant, less, in the case of an option, the aggregate exercise price payable (if any) or (ii) a reduced number of shares, which reduced number of shares will be equal to the market value (as determined by the board) of the number of shares that would otherwise have been issued or transferred to the participant, less (if the board so determines) any deductions (including, but not limited to any tax or similar liabilities) as may be required by law in respect of the award and, in the case of an option, the aggregate exercise price payable (if any).

Limits

The board may not grant an award that would cause the number of ordinary shares allocated under the Incentive Plan and under any other employee share plan adopted by the company (including the 2005 EMI Scheme described below) to exceed a number equal to 15% of our ordinary share capital in issue at that time. The Incentive Plan sets forth rules for determining when shares are treated as allocated under the Incentive Plan and makes clear that the number of shares allocated does not include shares in respect of which the right to acquire such shares lapses or is released or shares allocated in respect of awards which are then satisfied in cash.

The Incentive Plan also includes an individual participant limit: no eligible employee may be granted an award which would, at the time of grant, cause the market value (as determined by the board) of all the shares subject to awards granted to the participant in a particular financial year of the company to exceed ten times the participant's annual base salary. If any award exceeds this limit, it will be scaled back accordingly.

Reduction of Awards and Clawback

The board may, in its discretion, determine at any time prior to the vesting of an award to reduce (including to zero) the number of shares to which an award relates and/or impose further conditions on an award where there has been a material misstatement of our group's audited financial results; a material failure of risk management by us; serious reputational damage to us, any member of our group or a relevant business unit; material misconduct on the part of the participant or any other circumstances which the board considers to be similar in their nature or effect.

The board may also, in its discretion, determine that at any time after the vesting of an award prior to the later of the second anniversary of vesting and the fifth anniversary of the date of grant (or such longer period as is required by SEC rules that are applicable to us) to take the action described in the preceding paragraph (if an option has not yet been exercised or if shares or cash have not yet been delivered to the participant following the vesting of a conditional award or exercise of an option); require a participant or former participant to make a cash payment to us in respect of some or all of the shares or cash delivered to him or her under the award; and/or require a participant or former participant to transfer for no consideration some or all of the shares delivered to him or her under the award, where there has been a material misstatement of our group's audited financial results or material misconduct on the part of the participant. The board will have discretion to determine the basis on which the amount of cash or shares is calculated including whether, and the extent to which, any tax or social security liability is applicable to the award.

The board may decide to reduce (including to zero) the number of shares to which an award relates or may relate; impose further conditions on an award; and/or require a participant to transfer for no consideration some or all of the shares delivered to such participant under an award or make a cash payment to us in respect of some or all of the shares delivered to such participant under an award to effect the recovery of sums paid or shares delivered under any provisions similar to the rules described in the preceding paragraphs which are included in any bonus plan or share plan (other than the Incentive Plan) operated by any member of our group.

Corporate Events

In certain specified circumstances involving a change of control of our company, all awards which have not yet vested will vest at the time of the change of control or an earlier date, to the extent determined by the board in its discretion, taking into account, unless the board determines otherwise, the extent to which any performance condition has, in the board's opinion, been satisfied and the period of time that has elapsed from the grant date to the date of the change of control (or the date of cessation of office or employment, if earlier). To the extent an award does not vest (or is not exchanged, as described below) it will lapse immediately. Vested options will be exercisable for three months (or such other period as our board may determine) from the date of the change of control, after which time all options will lapse. Notwithstanding the foregoing, an award will not vest but will be exchanged for a new award which, in the opinion of the board, is equivalent to the original award, but relates to shares in a different company, if an offer to exchange the award is made and accepted by the participant; there is an Internal Reorganisation (as that term is defined in the Incentive Plan) unless the board determines that the award should nevertheless vest as described above upon the Internal Reorganisation; or the board decides (before the relevant event) that an existing award will automatically be exchanged.

Awards may also vest upon or become exercisable for a specified period following the occurrence of certain other corporate events, including, for example, if a person becomes bound or entitled to acquire shares pursuant to certain provisions of U.K. company law; if the company is affected by a demerger, delisting, special dividend or other event. The board may also provide for the vesting of awards that have not yet vested or permit exercise of vested options within a specified period following the date on which we pass a resolution for a voluntary winding up of our company.

Variation of Share Capital

In the event of any variation of the share capital of the company or a demerger, delisting, special dividend or other event which may, in the opinion of the board, affect the current or future value of shares, the number of shares that may be allocated under the Incentive Plan, the number of shares subject to an award, any performance condition and/or the exercise price of an option may be adjusted in such manner as the board determines.

Amendments

The board may at any time amend the rules of the Incentive Plan or, except as otherwise provided in the Incentive Plan, the terms of any award. An amendment that is to the material disadvantage of the existing rights of a participant will not be made unless the participant has approved the amendment and no amendment will be made that would prevent the Incentive Plan from being an employees' share scheme under U.K. law.

Termination

The Incentive Plan will terminate, and no award may be granted under the Incentive Plan, after the tenth anniversary of adoption by the Board. The Incentive Plan may also be terminated at any earlier time by the passing of a resolution by the board or an ordinary resolution of the company in general meeting. Termination of the Incentive Plan will be without prejudice to the existing rights of participants.

Schedule 2—Company Share Option Plan

The purpose of the Company Share Option Plan, or CSOP, is to enable us to grant CSOP options to eligible U.K. employees in accordance with the Income Tax (Earnings and Pensions) Act 2003, Schedule 4 (commonly known as the Enterprise Management Incentive Scheme provisions). Substantially all the rules of the Incentive Plan apply to CSOP options but there are a number of differences, including that there is no cash or dividend equivalent or ability to net settle a CSOP option; the eligibility rules are more limited; and the value of awards under the CSOP is subject to lower limits than those in the Incentive Plan.

Schedule 3—U.S. Participants

We have in place rules governing awards granted to our U.S. employees which have been adapted from the Incentive Plan. The rules are substantially the same as the Incentive Plan, but are designed to ensure that awards granted under the Incentive Plan comply with or are exempt from Section 409A of the U.S. Internal Revenue Code.

Non-Executive Director Restricted Stock Unit Awards

On July 18, 2017 at our annual general meeting of shareholders, our shareholders approved our Directors' Remuneration Policy, which provided for an annual grant of restricted stock units, or RSUs, to our non-executive directors. This annual grant of RSUs to our non-executive directors was designed to replace our prior practice of making annual awards of share options to non-executive directors. Following approval of the policy at our 2017 annual general meeting, we entered into a restricted stock unit agreement, or RSU agreement, with each of our non-executive directors. Each of these agreements provides for a grant of RSUs in the form of nominal cost options to purchase our ordinary shares.

Vesting and Settlement

Under the RSU agreements, the RSUs vest in full on the first anniversary of the date of grant. Vested RSUs will lapse and be forfeited if not exercised by December 31 of the calendar year in which they vested in full, subject to certain limited exceptions.

At any time prior to the date on which shares in respect of an RSU have been issued or transferred, the board may determine that the holder will receive, in lieu of ordinary shares, a cash payment equal to the market value of the number of shares that would otherwise have been issued or transferred to the holder or American Depositary Shares, or ADSs, equal to the market value of the number of shares that would otherwise have been issued or transferred to the holder, in each case, less any deductions (including, but not limited to any tax or similar liabilities) as may be required by law in respect of the RSU and the aggregate exercise price payable.

If a holder dies prior to the date on which the RSU vests, the RSU will vest in full as of the date of such holder's death. If a holder dies before his or her vested RSU has been exercised, the holder's personal representatives may exercise the RSU on or before December 31 in the calendar year in which it vested, after which time it will lapse. If the holder ceases to be a non-executive director of the company for any reason other than death, the RSU will continue to vest and become exercisable, and subject to forfeiture, in accordance with its terms.

Dividend Equivalent

The board may decide at any time prior to the issue or transfer of the shares following the exercise of an RSU that the holder will receive an amount (in cash and/or additional shares and/or additional ADSs) equal in value to any dividends that would have been paid on those shares on such terms and over such period (ending no later than the vesting date of the RSU) as the board may determine. This amount may assume the reinvestment of dividends (on such basis as the board may determine) and may exclude or include special dividends.

Reduction of RSU Award and Clawback

The board may, in its discretion, determine at any time prior to the vesting of an RSU to reduce (including to zero) the number of shares to which the RSU relates and/or impose further conditions on the RSU where there has been a material misstatement of our group's audited financial results; a material failure of risk management by us, any member of our group or a relevant business unit; serious reputational damage to us, any member of our group or a relevant business unit; material misconduct on the part of the holder or any other circumstances which the board considers to be similar in their nature or effect.

The board may also, in its discretion, determine that at any time after the vesting of an RSU prior to the later of the second anniversary of vesting and the fifth anniversary of the date of grant (or such longer period as is required by SEC rules that are applicable to us) to take the action described in the preceding paragraph (if a vested RSU has not yet been exercised or if shares or cash have not yet been delivered to the holder following the exercise of the RSU); require the holder to make a cash payment to us in respect of some or all of the shares or cash delivered to him or her under the RSU; and/or require the holder to transfer for no consideration some or all of the shares delivered to him or her under the RSU, where there has been a material misstatement of our group's audited financial results or material misconduct on the part of the holder. The board will have discretion to determine the basis on which the amount of cash or shares is calculated including whether, and the extent to which, any tax or social security liability is applicable to the RSU.

Corporate Events

In certain specified circumstances involving a change of control of our company, all RSUs which have not yet vested will vest at the time of the change of control. To the extent an RSU does not vest (or is not exchanged, as described below) it will lapse immediately. A vested RSU will be exercisable until December 31 of the calendar year in which it vested after which time it will lapse. Notwithstanding the foregoing, an RSU will not vest but will be exchanged for a new RSU which, in the opinion of the board, is equivalent to the original RSU, but relates to shares in a different company, if an offer to exchange the RSU is made and accepted by the holder; there is an Internal Reorganisation (as that term is defined in the RSU agreement) unless the board determines that the RSU should nevertheless vest as described above upon the Internal Reorganisation; or the board decides (before the relevant event) that an existing RSU will automatically be exchanged.

RSUs may also vest upon or become exercisable for a specified period following the occurrence of certain other corporate events, including, for example, if a person becomes bound or entitled to acquire shares pursuant to certain provisions of U.K. company law; or if the company is affected by a demerger, delisting, special dividend or other event. The board may also provide for the vesting of RSUs that have not yet vested or change the period of time during which any vested RSUs may be exercised (provided such period does not end later than December 31 of the calendar year of the vesting) following the date on which we pass a resolution for a voluntary winding up of our company.

Variation of Share Capital

In the event of any variation of the share capital of the company or a demerger, delisting, special dividend or other event which may, in the opinion of the board, affect the current or future value of shares, the number of shares subject to the RSU and/or the exercise price of the RSU, the RSU may be adjusted in such manner as the board determines.

Amendments

The board may at any time amend the terms of the RSU by written agreement with the holder of the RSU.

2005 EMI Scheme Rules

Our 2005 EMI Scheme Rules were adopted on December 1, 2005. Under the scheme we may grant enterprise management incentive options, known as approved options, to those eligible bona fide employees and directors who qualify under applicable U.K. tax law and, to the extent that our employees and directors do not qualify for approved options, unapproved options may be granted to such eligible bona fide employees and directors. Options can no longer be granted under this scheme.

Exercise of Options

Vesting of options is subject to such performance conditions as shall be set out in the agreement granting an option pursuant to the scheme and shall be otherwise determined by the board in accordance with the scheme. An approved option must be capable of being exercised within the period of ten years from the date of grant. Performance conditions may be amended, relaxed or waived by us if an event occurs which would cause us to consider that an amended performance condition would be a fairer measure of performance provided that such amended targets are no more and no less difficult to satisfy than they were prior to amendment.

Generally, options must be exercised while the participant is an eligible employee or director. In the event, however, that a participant ceases to be an eligible employee or director as a result of ill-health, injury, or disability; redundancy, retirement or pregnancy; upon the company for which the participant works ceasing to be a member of our group; or the transfer of an undertaking or part-undertaking in which the participant is employed to a company not in our group, the option may be exercised during the period commencing on the date he ceases to be an eligible employee or director and ending on 12 months thereafter. If a participant dies while he is an eligible employee or director, the participant's personal representatives may exercise the option for 12 months after the participant's death. All options lapse in prescribed circumstances, including: upon the tenth anniversary of the date of grant; the expiry of the period (if any) allowed for the satisfaction of any performance condition without such condition having been satisfied or becomes, in our opinion, incapable of being satisfied; on the day on which a participant ceases to be an eligible employee or director (with the exception of the carve outs detailed in the scheme); on the bankruptcy of the participant; or on the occurrence of a takeover.

Ordinary shares allotted under the scheme rank equally with the ordinary shares in issue at the date of allotment of the option shares. If and for so long as the ordinary shares are listed on AIM or any other exchange, we shall apply for ordinary shares allotted under the scheme to be admitted to the relevant exchange.

Limits

The maximum number of ordinary shares which may on any day be placed under option under the scheme, when added to the number of ordinary shares allocated for subscription for the preceding ten years under any employee share scheme, shall not exceed 15% of our ordinary share capital immediately prior to that day. Approved options are also subject to individual participant limits in accordance with the scheme and as provided for under relevant U.K. tax law. Lapsed options shall be disregarded for these purposes.

Takeovers and Liquidations

In certain specified circumstances involving a change of control, as specified in accordance with U.K. tax law, an option may automatically vest or otherwise be determined to vest by our board of directors. Where an option vests by reason of a change of control, the exercise of the option shall be conditional upon the change of control occurring. Our board of directors may, in certain circumstances, determine that an option shall lapse upon the change of control or six months thereafter.

Options may also be exercisable for the relevant period in the event of certain court sanctioned restructurings or amalgamations of us or if another company becomes bound or entitled to acquire our ordinary shares pursuant to certain provisions of U.K. companies law. Our board of directors may also permit exercise of the options within a period following the date on which we pass a resolution for voluntary winding up.

In the event of a person obtaining control of us as a result of a takeover offer or court sanctioned restructuring or amalgamation or qualifying exchange of shares within the relevant U.K. laws, the participant may, by agreement with the acquiring company, release options in consideration for the grant of a new option with respect to the acquiring company's shares.

Variation of Share Capital

In the event of any capitalization, rights issue, consolidation, subdivision, reduction or other variation of our share capital the number of ordinary shares comprised in an option and the exercise price in respect of the ordinary shares shall be varied as the directors determine and our auditors confirm to be fair and reasonable. Limitations apply to the extent to which any such adjustments may reduce the price at which ordinary shares may be purchased pursuant to the exercise of an option and no adjustment will take effect until it has been approved by the United Kingdom tax authorities in accordance with applicable U.K. tax law.

Amendments

Our board of directors may waive or amend the scheme subject to certain limitations which require approval of our shareholders.

Scheme Rules Governing Options Awarded to U.S. Employees

We have in place rules governing options awarded to our U.S. employees which have been adapted from our 2005 EMI Scheme Rules. The rules of the scheme are substantially the same as the 2005 EMI Scheme Rules.

Options Granted Outside the 2005 EMI Scheme Rules

Certain of our consultants who are not eligible employees of companies in our group for the purposes of our option scheme rules, and therefore, are not eligible to participate in our option schemes as detailed above, have been granted options to acquire our shares pursuant to separate unapproved option agreements. These options are generally on comparable terms to options granted under the 2005 EMI Scheme Rules.

Limitations on Liability and Indemnification Matters

To the extent permitted by the U.K. Companies Act 2006, 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 have entered into a deed of indemnity with each of our directors and executive officers.

C. Board Practices

Board Composition

Our board of directors currently consists of seven members, a non-executive chairman, one executive director and five non-executive directors.

Under Nasdaq listing standards, a director will only qualify as an "independent director" if, in the opinion of the listed company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Our board of directors has determined that all of our directors, other than Mr. Edwards, qualify as independent directors under Rule 5605(a)(2) of the Nasdaq listing standards.

Corporate Governance and Committees of the Board

Corporate Governance

Our board of directors is responsible for overall corporate governance and for supervising the general affairs and business of our company and its subsidiaries. As an AIM-listed company, we are subject to the continuing requirements of the AIM Rules for Companies as published by the London Stock Exchange plc from time to time. We are not required to comply with the U.K. Corporate Governance Code by virtue of being an AIM-listed company. Our board, however, seeks to apply the highest standards of corporate governance appropriate for the size and stage of development of the company.

Our board is responsible to our shareholders for the proper management of our company and its subsidiaries and setting the overall direction and strategy of our group, reviewing scientific, operational and financial performance, and advising on management appointments. All key operational and investment decisions are subject to board approval.

There is a clear separation of the roles of chief executive officer and non-executive chairman. The chairman is responsible for overseeing the running of our board, ensuring that no individual or group dominates our board's decision-making and ensuring that the non-executive directors are properly briefed on matters. The chief executive officer has the responsibility for implementing the strategy of our board and managing the day-to-day business activities of our group.

Under our articles of association, all of our directors are subject to election by shareholders at the first annual general meeting after their appointment to our board and to re-election by shareholders at least once every three years. Accordingly we plan to put one-third of the directors up for re-election each year and plan to put two of the directors up for re-election at the 2018 annual general meeting. The board considers a classified board structure and the practice of retiring by rotation every three years to be appropriate given that, as a biopharmaceutical company, the nature of our business is to carry out long-term research and development. Further details regarding the directors to be proposed for re-election will be detailed in the 2018 notice of annual general meeting that will be distributed to shareholders in accordance with our articles of association.

Committees of the Board

We have established an audit committee, a remuneration committee and a nominating and corporate governance committee and have adopted a charter for each of these committees.

Audit Committee

The members of our audit committee are Mr. Wurzer, Mr. Zambeletti and Ms. Andrews. Mr. Wurzer is the chair of the audit committee. Our audit committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence, objectivity and effectiveness of our registered public accounting firm;
- overseeing the work of our independent registered public accounting firm, including through the receipt and consideration of reports from that firm;
- monitoring the integrity of our financial statements by reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures;
- reviewing and monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct;
- reviewing and monitoring the effectiveness of our internal audit function;
- overseeing our risk assessment and risk management policies;
- establishing policies regarding procedures for the receipt and retention of accounting related complaints and concerns;
- meeting independently with our internal auditing staff, if any, our independent registered public accounting firm and management; and
- reviewing and approving or ratifying any related person transactions.

All audit and non-audit services, other than *de minimis* non-audit services, to be provided to us by our independent registered public accounting firm must be approved in advance by our audit committee.

Our board of directors has determined that Mr. Wurzer is an "audit committee financial expert" as defined in Item 16A of Form 20-F.

In order to satisfy the independence criteria for audit committee members set forth in Rule 10A-3(b)(1) under the Exchange Act, each member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee, accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the listed company or any of its subsidiaries. We believe that the composition of our audit committee meets the requirements for independence under current Nasdaq and SEC rules and regulations.

Remuneration Committee

The members of our remuneration committee are Dr. Armstrong, Ms. Andrews and Professor Davies. Ms. Andrews is the chair of the remuneration committee. Our remuneration committee's responsibilities include:

- reviewing and approving, or making recommendations to our board of directors with respect to, the compensation of our directors and executive management;
- overseeing an evaluation of our executive management; and
- overseeing and administering our employee share option scheme or equity incentive plans in operation from time to time.

In order to satisfy the independence criteria for remuneration committee members set forth in Rule 10C-1 under the Exchange Act, all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a remuneration committee member must be considered, including, but not limited to: (1) the source of compensation of the director, including any consulting advisory or other compensatory fee paid by such company to the director; and (2) whether the director is affiliated with the company or any of its subsidiaries or affiliates. We believe the composition of our remuneration committee meets the requirements for independence under current Nasdaq and SEC rules and regulations.

Nominating and Corporate Governance Committee

The members of our nominating and corporate governance committee are Dr. Armstrong, Dr. Price, Professor Davies, Mr. Zambeletti, Ms. Andrews and Mr. Wurzer. Dr. Armstrong is the chair of the nominating and corporate governance committee. Our nominating and corporate governance committee's responsibilities include:

- identifying individuals qualified to become members of our board;
- recommending to our board the persons to be nominated for election as directors and to each of our board's committees;
- overseeing a periodic evaluation of our board;
- reviewing and making recommendations to our board with respect to our board leadership structure;
- reviewing and making recommendations to our board with respect to management succession planning; and
- developing and recommending to our board corporate governance principles.

D. Employees

The number of our employees by geographic location and function as of the end of the period for our fiscal years ended January 31, 2018, 2017 and 2016 was as follows:

	2018	2017	2016
By Geography			
United Kingdom	54	28	25
North America	22	12	12
Total	76	40	37

	2018	2017	2016
By Function			
Research & Development	52	24	22
General & Administrative	24	16	15
Total	76	40	37

Our employees are not represented by any collective bargaining agreements, and we have never experienced a work stoppage. We believe our employee relations are good.

Item 7: Major Shareholders and Related Party Transactions

A. Major Shareholders

The following table sets forth information with respect to the beneficial ownership of our ordinary shares as of April 1, 2018 by:

- each of the members of our board of directors;
- each of our other executive officers; and
- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our ordinary shares.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our ordinary shares. Our ordinary shares subject to options or warrants that are currently exercisable or exercisable within 60 days of April 1, 2018 are considered outstanding and beneficially owned by the person holding the options or warrants for the purpose of calculating the percentage ownership of that person but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, the persons and entities in this table have sole voting and investing power with respect to all of the ordinary shares beneficially owned by them. Except as otherwise indicated in the table below, addresses of named beneficial owners are c/o Summit Therapeutics plc, 136a Eastern Avenue, Milton Park, Abingdon, Oxfordshire OX14 4SB, United Kingdom. All holders of our ordinary shares, including those shareholders listed below, have the same voting rights with respect to such shares.

	Ordinary shares beneficially owned	
Name of beneficial owner	Shares	%
Executive officers and directors		
Glyn Edwards[(1)]	1,243,292	1.50%
Erik Ostrowski	—	—
David Roblin [(2)]	107,770	*
Frank Armstrong[(3)]	51,942	*
Barry Price[(4)]	107,211	*
Stephen Davies[(5)]	602,481	*
Leopoldo Zambeletti	—	—
Valerie Andrews	10,500	*
David Wurzer	7,500	*
All executive officers and directors as a group (9 persons)[(6)]	2,130,696	2.56%
5% shareholders		
Lansdowne Partners (UK) LLP[(7)]	21,143,500	25.82%
Robert Keith[(8)]	4,294,816	5.24%

* Less than one percent.

(1) Consists of (a) 1,009,959 ordinary shares underlying options that are exercisable as of April 1, 2018 or will become exercisable within 60 days after such date and (b) 233,333 ordinary shares.

(2) Consists of 107,770 ordinary shares underlying options that are exercisable as of April 1, 2018 or will become exercisable within 60 days after such date.

(3) Consists of (a) 37,500 ordinary shares underlying options that are exercisable as of April 1, 2018 or will become exercisable within 60 days after such date and (b) 14,442 ordinary shares.

(4) Consists of (a) 31,481 ordinary shares underlying options that are exercisable as of April 1, 2018 or will become exercisable within 60 days after such date and (b) 75,730 ordinary shares.

(5) Consists of (a) 17,500 ordinary shares underlying options that are exercisable as of April 1, 2018 or will become exercisable within 60 days after such date and (b) 584,981 ordinary shares.

(6) Consists of (a) 1,204,210 ordinary shares underlying options that are exercisable as of April 1, 2018 or will become exercisable within 60 days after such date and (b) 926,486 ordinary shares.

(7) These shares are registered in the name of HSBC Client Holdings Nominee (UK) Limited. Lansdowne Partners (UK) LLP may be deemed to have voting and dispositive power over the ordinary shares. Investment decisions with respect to the ordinary shares held by Lansdowne Partners (UK) LLP can be made by Stuart Roden, Peter Davies and Jonathan Regis. The address of Lansdowne Partners (UK) LLP is 15 Davies Street, London, W1K 3AG.

(8) This information is based on information contained in a TR-1 Notification sent to us on January 25, 2017 by Robert Keith.

Bank of New York Mellon, or BNY Mellon, is the holder of record for the company's ADR program, pursuant to which each ADS represents five ordinary shares. As of April 1, 2018, BNY Mellon held 30,713,240 ordinary shares representing 37.5% of the issued share capital held at that date. As of April 1, 2018, we had one holder of record with an address in the United States, and such holder held less than one percent of our outstanding ordinary shares. As a result, the number of holders of record or registered holders in the United States is not representative of the number of beneficial holders or of the residence of beneficial holders.

To our knowledge, there has been no significant change in the percentage ownership held by the principal shareholders listed above since April 1, 2018.

B. Related Party Transactions

Since February 1, 2017, we have engaged in the following transactions with our directors, executive officers or holders of 5% or more of our ordinary shares, or affiliates of our directors, executive officers or holders of more than 5% of our ordinary shares that are required to be described in this Annual Report pursuant to Item 7.B. of Form 20-F.

In September 2017, we completed an underwritten public offering for the sale of 1,677,850 American Depositary Shares, or ADSs, representing our ordinary shares. In connection with such offering, Lansdowne Partners (UK) LLP, a holder of more than 5% of our ordinary shares, purchased an aggregate of 666,666 ADSs at a purchase price of $12.00 per ADS.

In March 2018, we completed a placement of an aggregate of 8,333,333 ordinary shares to investors in Europe at a purchase price of 180 pence per share. In connection with such placement, an affiliate of Lansdowne Partners (UK) LLP, a holder of more than 5% of our ordinary shares, subscribed for 2,083,000 ordinary shares.

C. Interests of Experts and Counsel

Not applicable.

Item 8: Financial Information

A. Consolidated Financial Statements and Other Financial Information.

See "Item 18. Financial Statements."

B. Significant Changes.

See Note 28 of our consolidated financial statements at the end of this Annual Report for a description of the significant changes since January 31, 2018.

C. Dividends

We have never declared or paid any dividends and currently intend to retain all available earnings generated by our operations for the development and growth of our business. We do not currently anticipate paying any cash dividends on our shares.

Item 9: The Listing

A. Listing Details

Our ordinary shares have been trading on AIM, a market operated by the London Stock Exchange plc, or AIM, under the symbol "SUMM" since October 14, 2004.

The following table sets forth, for the periods indicated, the reported high and low closing sale prices of our ordinary shares on AIM in pounds sterling and U.S. dollars. Price per ordinary share in U.S. dollars amounts below have been translated into U.S. dollars at the noon buying rate of the Federal Reserve Bank of New York on January 31, 2018 of £1.00 to $1.4190.

	Price Per Ordinary Share		Price Per Ordinary Share	
	£		$	
	High	Low	High	Low
Annual (Fiscal Year Ended January 31):				
2014	3.90	0.78	5.53	1.11
2015	2.20	1.04	3.12	1.48
2016	1.84	1.17	2.61	1.66
2017	2.53	0.91	3.59	1.29
2018	2.43	1.43	3.45	2.03
Quarterly:				
First Quarter 2017	1.33	0.94	1.89	1.33
Second Quarter 2017	1.26	1.00	1.88	1.42
Third Quarter 2017	2.53	0.91	2.59	1.29
Fourth Quarter 2017	1.95	1.43	2.77	2.03
First Quarter 2018	2.20	1.75	3.12	2.48
Second Quarter 2018	2.03	1.73	2.88	2.45
Third Quarter 2018	2.43	1.53	3.45	2.17
Fourth Quarter 2018	2.15	1.43	3.05	2.03
Monthly:				
October 2017	1.98	1.53	2.81	2.17
November 2017	1.80	1.43	2.55	2.03
December 2017	1.80	1.63	2.55	2.41
January 2018	2.15	1.65	3.05	2.34
February 2018	1.98	1.63	2.81	2.31
March 2018	1.95	1.70	2.77	2.41
April 2018 (through April 6, 2018)	1.90	1.75	2.70	2.48

On April 6, 2018, the last reported sales price of our ordinary shares on AIM was £1.75 per ordinary share ($2.48 per ordinary share).

Our American Depositary Shares, or ADSs, have been trading on the Nasdaq Global Market under the symbol "SMMT" since March 5, 2015. The following table sets forth, for the periods indicated, the reported high and low closing sale prices of our ADSs on the Nasdaq Global Market in U.S. dollars.

	Price Per ADS	
	$	
	High	Low
Annual (Fiscal Year Ended January 31):		
2016	13.68	8.25
2017	14.35	5.50
2018	16.00	9.05
Quarterly:		
First Quarter 2017	10.97	6.35
Second Quarter 2017	9.84	7.00
Third Quarter 2017	14.35	5.50
Fourth Quarter 2017	12.08	8.12
First Quarter 2018	13.28	10.36
Second Quarter 2018	13.98	10.53
Third Quarter 2018	16.00	9.73
Fourth Quarter 2018	14.77	9.05
Monthly:		
October 2017	12.79	9.73
November 2017	11.96	9.05
December 2017	12.02	9.89
January 2018	14.77	11.08
February 2018	13.64	10.60
March 2018	13.90	11.36
April 2018 (through April 6, 2018)	13.11	11.84

On April 6, 2018, the last reported sales price of our ADSs on the Nasdaq Global Market was $12.29 per ADS.

B. Plan of Distribution

Not applicable.

C. Markets

Our ordinary shares are listed on AIM under the symbol "SUMM" and our ADSs are listed on the Nasdaq Global Market under the symbol "SMMT."

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issue

Not applicable.

Item 10: Additional Information

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association

We incorporate by reference into this Annual Report the description of our amended articles of association contained in our Registration Statement on Form F-1 (File No. 333-201807) originally filed with the SEC on January 30, 2015, as amended.

C. Material Contracts

Except as otherwise disclosed in this Annual Report (including the exhibits hereto), we are not currently, and have not been in the last two years, party to any material contract, other than contracts entered into in the ordinary course of business.

D. Exchange Controls

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

E. Taxation

Taxation in the United Kingdom

The following is a general summary of certain U.K. tax considerations relating to the ownership and disposal of our ordinary shares or ADS and does not address all possible tax consequences relating to an investment in our ordinary share or ADS. It is based on U.K. tax law and generally published HM Revenue & Customs, or HMRC, practice as of the date of this Annual Report, both of which are subject to change, possibly with retrospective effect. A U.K. tax year runs from April 6th in any year to April 5th in the following year.

Save as provided otherwise, this summary applies only to a person who is the absolute beneficial owner of our ordinary share or ADS and who is resident (and, in the case of an individual, domiciled) in the United Kingdom for tax purposes and who is not resident for tax purposes in any other jurisdiction and does not have a permanent establishment or fixed base in any other jurisdiction with which the holding of our ordinary share or ADS is connected ("U.K. Holders"). A person (a) who is not resident (or, if resident, is not domiciled) in the United Kingdom for tax purposes, including an individual and company who trades in the United Kingdom through a branch, agency or permanent establishment in the United Kingdom to which an ordinary share or ADS is attributable, or (b) who is resident or otherwise subject to tax in a jurisdiction outside the United Kingdom, is recommended to seek the advice of professional advisors in relation to their taxation obligations.

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 investor. It does not address all of the tax considerations that may be relevant to specific investors in light of their particular circumstances or to investors subject to special treatment under U.K. tax law. In particular:

- this summary only applies to an absolute beneficial owner of ordinary share or ADS and any dividend paid in respect of the ordinary share where the dividend is regarded for U.K. tax purposes as that person's own income (and not the income of some other person); and
- this summary: (a) only addresses the principal U.K. tax consequences for an investor who holds ordinary share or ADS as a capital asset, (b) does not address the tax consequences that may be relevant to certain special classes of investor such as a dealer, broker or trader in shares or securities and any other person who holds ordinary share or ADS otherwise than as an investment, (c) does not address the tax consequences for a holder that is a financial institution, insurance company, collective investment scheme, pension scheme, charity or tax-exempt organization, (d) assumes that a holder is not an officer or employee of the company (nor of any related company) and has not (and is not deemed to have) acquired the ordinary share or ADS by virtue of an office or employment, and (e) assumes that a holder does not control or hold (and is not deemed to control or hold), either alone or together with one or more associated or connected persons, directly or indirectly (including through the holding of an ADS), an interest of 10% or more in the issued share capital (or in any class thereof), voting power, rights to profits or capital of the company, and is not otherwise connected with the company.

This summary further assumes that a holder of ADSs is the beneficial owner of the underlying ordinary share for U.K. direct tax purposes.

POTENTIAL INVESTORS IN THE ADSs SHOULD SATISFY THEMSELVES PRIOR TO INVESTING AS TO THE OVERALL TAX CONSEQUENCES, INCLUDING, SPECIFICALLY, THE CONSEQUENCES UNDER U.K. TAX LAW AND HMRC PRACTICE OF THE ACQUISITION, OWNERSHIP AND DISPOSAL OF THE ORDINARY SHARES OR ADSs, IN THEIR OWN PARTICULAR CIRCUMSTANCES BY CONSULTING THEIR OWN TAX ADVISERS.

Taxation of Dividends

Withholding Tax

A dividend payment in respect of an ordinary share may be made without withholding or deduction for or on account of U.K. tax.

Income Tax

A dividend received by individual U.K. Holders will be subject to U.K. income tax. The system of grossing up dividends has been abolished from April 2016 and replaced with a simple rate of tax on dividends referred to below.

An individual holder of an ordinary share or ADS who is not a U.K. Holder will not be chargeable to U.K. income tax on a dividend paid by the company, unless such holder carries on (whether solely or in partnership) a trade, profession or vocation in the United Kingdom through a branch or agency in the United Kingdom to which the ordinary share or ADS is attributable. In these circumstances, such holder may, depending on his or her individual circumstances, be chargeable to U.K. income tax on a dividend received from the company.

The rate of U.K. income tax that is chargeable on dividends received in the tax years 2017/2018 or 2018/19 by (i) an additional rate taxpayer is 38.1%, (ii) a higher rate taxpayer is 32.5%, and (iii) a basic rate taxpayer is 7.5%. An individual U.K. Holder may be entitled to a tax-free dividend allowance (in addition to their personal allowance) of £5,000 reduced to £2,000 for the tax year 2018/9. An individual's dividend income is treated as the top slice of their total income that is chargeable to U.K. income tax. Dividends which fall within an individual's personal income tax allowance do not form part of the dividend tax-free allowance.

Corporation Tax

A U.K. Holder within the charge to U.K. corporation tax may be entitled to exemption from U.K. corporation tax in respect of dividend payments. If the conditions for the exemption are not satisfied, or such U.K. Holder elects for an otherwise exempt dividend to be taxable, U.K. corporation tax will be chargeable on the gross amount of a dividend. If potential investors are in any doubt as to their position, they should consult their own professional advisers.
A corporate holder of an ordinary share or ADS that is not a U.K. Holder will not be subject to U.K. corporation tax on a dividend received from the company, unless it carries on a trade in the United Kingdom through a permanent establishment to which the ordinary share or ADS is attributable. In these circumstances, such holder may, depending on its individual circumstances and if the exemption from U.K. corporation tax discussed above does not apply, be chargeable to U.K. corporation tax on dividends received from the company.

Taxation of Disposals

U.K. Holders

A disposal or deemed disposal of an ordinary share or ADS by an individual U.K. Holder may, depending on his or her individual circumstances, give rise to a chargeable gain or to an allowable loss for the purpose of U.K. capital gains tax. The principal factors that will determine the capital gains tax position on a disposal of an ordinary share or ADS are the extent to which the holder realizes any other capital gains in the tax year in which the disposal is made, the extent to which the holder has incurred capital losses in that or any earlier tax year and the level of the annual exemption for tax-free gains in that tax year (the "annual exemption"). The annual exemption for the 2017/2018 tax year is £11,300 increasing to £11,700 for the 2018/19 tax year. If, after all allowable deductions, an individual U.K. Holder's total taxable income for the year exceeds the basic rate income tax limit, a taxable capital gain accruing on a disposal of an ordinary share or an ADS is taxed at the rate of 20%. In other cases, a taxable capital gain accruing on a disposal of an ordinary share or ADS may be taxed at the rate of 10% or the rate of 20% or at a combination of both rates.

An individual U.K. Holder who ceases to be resident in the United Kingdom (or who fails to be regarded as resident in a territory outside the United Kingdom for the purposes of double taxation relief) for a period of five tax years or less than five years and who disposes of an ordinary share or ADS during that period of temporary non-residence may be liable to U.K. capital gains tax on a chargeable gain accruing on such disposal on his or her return to the United Kingdom (or upon ceasing to be regarded as resident outside the United Kingdom for the purposes of double taxation relief) (subject to available exemptions or reliefs).

A disposal (or deemed disposal) of an ordinary share or ADS by a corporate U.K. Holder may give rise to a chargeable gain or an allowable loss for the purpose of U.K. corporation tax. Such a holder should be entitled to an indexation allowance, which applies to reduce a capital gain to the extent that such a gain arises due to inflation. The allowance may reduce a chargeable gain but will not create or increase an allowable loss.

Any gain or loss in respect of currency fluctuations over the period of holding an ordinary share or an ADS are also brought into account on a disposal.

Non-U.K. Holders

An individual holder who is not a U.K. Holder will not be liable to U.K. capital gains tax on capital gains realized on the disposal of an ordinary share or ADS unless such holder carries on (whether solely or in partnership) a trade, profession or vocation in the United Kingdom through a branch or agency in the United Kingdom to which the ordinary share or ADS is 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 share or ADS.

A corporate holder of an ordinary share or ADS that is not a U.K. Holder will not be liable for U.K. corporation tax on chargeable gains realized on the disposal of an ordinary share or ADS unless it carries on a trade in the United Kingdom through a permanent establishment to which the ordinary share or ADS is attributable. In these circumstances, a disposal (or deemed disposal) of an ordinary share or ADS by such holder may give rise to a chargeable gain or an allowable loss for the purposes of U.K. corporation tax.

Inheritance Tax

If for the purposes of the Double Taxation Relief (Taxes on Estates of Deceased Persons and on Gifts) Treaty United States of America Order 1979 (SI 1979/1454) between the United States and the United Kingdom an individual holder is domiciled at the time of their death or at the time of a transfer made during their lifetime, in the United States and is not a national of the United Kingdom, any ordinary share or ADS beneficially owned by that holder should not generally be subject to U.K. inheritance tax, provided that any applicable United States federal gift or estate tax liability is paid, except where (i) the ordinary share or ADS is part of the business property of a U.K. permanent establishment or pertain to a U.K. fixed base used for the performance of independent personal services; or (ii) the ordinary share or ADS is comprised in a settlement unless, at the time the settlement was made, the settlor was domiciled in the United States and not a national of the U.K. (in which case no charge to U.K. inheritance tax should apply).

Stamp Duty and Stamp Duty Reserve Tax

The stamp duty and stamp duty reserve tax, or SDRT, treatment of the issue and transfer of, and the agreement to transfer, an ordinary share outside a depositary receipt system or a clearance service are discussed in the paragraphs under "*General*" below. The stamp duty and SDRT treatment of such transactions in relation to such systems are discussed in the paragraphs under "*Depositary Receipt Systems and Clearance Services*" below.

General

An agreement to transfer an ordinary share will normally give rise to a charge to SDRT at the rate of 0.5% of the amount or value of the consideration payable for the transfer. SDRT is, in general, payable by the purchaser.

A transfer of an ordinary share or ADS will generally be subject to stamp duty at the rate of 0.5% of the consideration given for the transfer (rounded up to the next £5). The purchaser normally pays the stamp duty.

If a duly stamped transfer completing an agreement to transfer is produced within six years of the date on which the agreement is made (or, if the agreement is conditional, the date on which the agreement becomes unconditional) any SDRT already paid is generally repayable, normally with interest, and any SDRT charge yet to be paid is cancelled to avoid a double charge as the stamp duty has been paid.

Under current HMRC guidance, no U.K. stamp duty should be payable on a written instrument transferring an ADS or on a written agreement to transfer an ADS, on the basis that an ADS is not regarded as either "stock" or a "marketable security" for U.K. stamp duty purposes.

Depositary Receipt Systems and Clearance Services

Following the ECJ decision in C-569/07 *HSBC Holdings Plc, Vidacos Nominees Limited v The Commissioners of Her Majesty's Revenue & Customs* and the First-tier Tax Tribunal decision in *HSBC Holdings Plc and the Bank of New York Mellon Corporation v The Commissioners of Her Majesty's Revenue & Customs*, HM Revenue & Customs has confirmed that 1.5% SDRT is no longer payable when shares are issued or transferred to a clearance service (such as, in our understanding, DTC) or depositary receipt system as an integral part of a raising of capital.

Where an ordinary share or ADS is otherwise transferred (i) to, or to a nominee or an agent for, a person whose business is or includes the provision of clearance services or (ii) to, or to a nominee or an agent for a person whose business is or includes issuing depositary receipts, stamp duty or SDRT will generally be payable at the higher rate of 1.5% of the amount or value of the consideration given or, in certain circumstances, the value of the shares.

There is an exception from the 1.5% charge on the transfer to, or to a nominee or agent for, a clearance service where the clearance service has made and maintained an election under section 97A(1) of the Finance Act 1986, which has been approved by HM Revenue & Customs. In these circumstances, SDRT at the rate of 0.5% of the amount or value of the consideration payable for the transfer will arise on any transfer of ordinary share into such an account and on subsequent agreements to transfer such shares within such account. It is our understanding that DTC has not made an election under section 97A(1) of the Finance Act of 1986.

Any liability for stamp duty or SDRT in respect of a transfer into a clearance service or depositary receipt system, or in respect of a transfer within such a service, which does arise will strictly be accountable by the clearance service or depositary receipt system operator or their nominee, as the case may be, but will, in practice, be payable by the participants in the clearance service or depositary receipt system.

The Proposed Financial Transactions Tax

The European Commission has published a proposal for a Directive for a common Financial Transactions Tax, or FTT, in Belgium, Germany, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia (described below as the "participating Member States").

The proposed FTT has very broad scope and could, if introduced in its current form, apply to certain dealings in ordinary shares (including secondary market transactions) in certain circumstances.

Under current proposals the FTT could apply in certain circumstances to persons both within and outside of the participating Member States. Generally, it would apply to certain dealings in ordinary shares where at least one party is a financial institution, and at least one party is established in a participating Member State. A financial institution may be, or be deemed to be, "established" in a participating Member State in a broad range of circumstance, including (i) by transacting with a person established in a participating Member State or (ii) where the financial instrument which is subject to the dealings is issued in participating Member State.

The FTT proposal remains subject to negotiation between the participating Member States. Further, the legality of the FTT proposals is at present uncertain. It may therefore be altered prior to any implementation, the timing of which remains unclear. Additional EU Member States may decide to participate. The FTT proposal remains only a proposal and little progress has been made in recent years; the impact of an FTT on us and holders of our ordinary shares and ADS is made more uncertain following the U.K.'s decision to withdraw from the European Union. Prospective holders of an ordinary share or ADS are advised to seek their own professional advice in relation to the FTT.

Taxation in the United States

The following summary of the material U.S. federal income tax consequences of the acquisition, ownership and disposition of the ADSs is based upon current law and does not purport to be a comprehensive discussion of all the tax considerations that may be relevant to a particular U.S. holder, as defined below, of the ADSs. This summary is based on current provisions of the Internal Revenue Code of 1986, as amended, or the Code, existing, final, temporary and proposed U.S. Treasury Regulations, administrative rulings and judicial decisions, in each case as available on the date of this Annual Report. All of the foregoing are subject to change, which change could apply retroactively and could affect the tax consequences described below.

This section summarizes the material U.S. federal income tax consequences to U.S. holders, as defined below, of an investment in the ADSs. This summary addresses only the U.S. federal income tax considerations for U.S. holders that acquire and hold the ADSs as capital assets. **Each prospective investor should consult a professional tax advisor with respect to the tax consequences of the acquisition, ownership or disposition of the ADSs**. This summary does not address tax considerations applicable to a holder of ADSs that may be subject to special tax rules including, without limitation, the following:

- banks or other financial institutions;
- insurance companies;
- brokers, dealers or traders in securities, currencies, or notional principal contracts;
- grantor trusts;
- tax-exempt entities, including an "individual retirement account" or "Roth IRA" retirement plan;
- regulated investment companies or real estate investment trusts;
- persons that hold the ordinary shares as part of a hedge, straddle, conversion, constructive sale or similar transaction involving more than one position;
- persons required to accelerate the recognition of any item of gross income with respect to the ADSs as a result of such income being recognized on an applicable financial statement
- an entity classified as a partnership and persons that hold the ordinary shares through partnerships or certain other pass-through entities;
- holders (whether individuals, corporations or partnerships) that are treated as expatriates for some or all U.S. federal income tax purposes;
- persons who acquired the ADSs as compensation for the performance of services;
- persons who are resident, or ordinarily resident, in a foreign country;
- persons holding the ADSs in connection with a trade or business conducted outside of the United States;
- a U.S. holder who holds the ADSs through a financial account at a foreign financial institution that does not meet the requirements for avoiding withholding with respect to certain payments under Sections 1471 through 1474 of the Internal Revenue Code of 1986, as amended, or the Code;
- holders that own (or are deemed to own) 10% or more of our voting shares; and
- holders that have a "functional currency" other than the U.S. dollar.

Further, this summary does not address alternative minimum tax, gift or estate considerations, U.S. state or local tax matters or the indirect effects on the holders of equity interests in entities that own the ADSs. In addition, this discussion does not consider the U.S. tax consequences to holders of ADSs that are not "U.S. holders" (as defined below).

For the purposes of this summary, a "U.S. holder" is a beneficial owner of ordinary shares or ADSs that is (or is treated as), for U.S. federal income tax purposes:

- an individual who is either a citizen or a tax resident of the United States;
- a corporation, or other entity that is treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States or any state of the United States or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust, if a court within the United States is able to exercise primary supervision over its administration and one or more U.S. persons have the authority to control all of the substantial decisions of such trust or has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a United States person.

If a partnership holds ordinary shares or ADSs, the tax treatment of a partner will generally depend upon the status of the partner and upon the activities of the partnership; those rules are not discussed in this summary.

We will not seek a ruling from the U.S. Internal Revenue Service, or IRS, with regard to the U.S. federal income tax treatment of an investment in our ordinary shares or ADSs, and we cannot assure you that the IRS will agree with the conclusions set forth below.
The discussion below assumes that the representations contained in the deposit agreement governing the ADSs are true and that the obligations in the deposit agreement and any related agreement will be complied with in accordance with their terms.

Ownership of ADSs

For U.S. federal income tax purposes, a holder of ADSs generally will be treated as the owner of the ordinary shares represented by such ADSs. Gain or loss will generally not be recognized on account of exchanges of ordinary shares for ADSs, or of ADSs for ordinary shares. References to ordinary shares in the discussion below are deemed to include ADSs, unless context otherwise requires.

Distributions

Subject to the discussion under "*Passive Foreign Investment Company Considerations*" below, the gross amount of any distribution actually or constructively received by a U.S. holder with respect to ordinary shares will be taxable to the U.S. holder as a dividend to the extent of such U.S. holder's pro rata share of our current and accumulated earnings and profits as determined under U.S. federal income tax principles. Distributions in excess of such pro rata share of our earnings and profits will be non-taxable to the U.S. holder to the extent of, and will be applied against and reduce, the U.S. holder's adjusted tax basis in the ordinary shares. Distributions in excess of the sum of such pro rata share of our earnings and profits and such adjusted tax basis will generally be taxable to the U.S. holder as capital gain from the sale or exchange of property. However, since we do not calculate our earnings and profits under U.S. federal income tax principles, it is expected that any distribution will be reported as a dividend, even if that distribution would otherwise be treated as a non-taxable return of capital or as capital gain under the rules described above. The amount of any distribution of property other than cash will be the fair market value of that property on the date of distribution. A corporate U.S. holder will not be eligible for any dividends-received deduction in respect of a dividend received with respect to ordinary shares.

Subject to the discussion below regarding the "Medicare tax," qualified dividends received by non-corporate U.S. holders (*i.e.*, individuals and certain trusts and estates) are currently subject to a maximum income tax rate of 20%. This reduced income tax rate is applicable to dividends paid by "qualified foreign corporations" to non-corporate U.S. holders that meet the applicable requirements, including a minimum holding period (generally, at least 61 days without protection from the risk of loss during the 121-day period beginning 60 days before the ex-dividend date). A non-United States corporation (other than a corporation that is classified as a "passive foreign investment company," or PFIC, for the taxable year in which the dividend is paid or the preceding taxable year) generally will be considered to be a qualified foreign corporation (a) if it is eligible for the benefits of a comprehensive tax treaty with the United States which the Secretary of Treasury of the United States determines is satisfactory for purposes of this provision and which includes an exchange of information provision, or (b) with respect to any dividend it pays on shares of stock which are readily tradable on an established securities market in the United States. Our ADSs are listed on the Nasdaq Global Market, which is an established securities market in the United States, and we expect the ADSs to be readily tradable on the Nasdaq Global Market. However, there can be no assurance that the ADSs will be considered readily tradable on an established securities market in the United States in later years. The Company, which is incorporated under the laws of the United Kingdom, believes that it qualifies as a resident of the United Kingdom for the purposes of, and 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 Capital Gains, signed on July 24, 2001, or the U.S.-U.K. Tax Treaty, although there can be no assurance in this regard. Further, the IRS has determined that the U.S.-U.K. Tax Treaty is satisfactory for purposes of the qualified dividend rules and that it includes an exchange-of-information program. Based on the foregoing, we expect to be considered a qualified foreign corporation under the Code. Accordingly, dividends paid by us to non-corporate U.S. holders with respect to shares that meet the minimum holding period and other requirements are expected to be treated as "qualified dividend income." However, as discussed above, dividends paid by us will not qualify for the 20% maximum U.S. federal income tax rate if we are treated, for the tax year in which the dividends are paid or the preceding tax year, as a PFIC for U.S. federal income tax purposes, as discussed below.

The U.S. Treasury Department has announced its intention to issue rules regarding when and to what extent holders of ADSs will be permitted to rely on certifications from issuers to establish that dividends paid on shares to which such ADSs relate are treated as qualified dividends. Because such procedures have not yet been issued, it is not clear whether we will be able to comply with them.

Dividends received by a U.S. holder with respect to ordinary shares generally will be treated as foreign source income for the purposes of calculating that holder's foreign tax credit limitation. For these purposes, dividends distributed by us generally will constitute "passive category income" (but, in the case of some U.S. holders, may constitute "general category income").

Sale or Other Disposition of Ordinary Shares

A U.S. holder will generally recognize gain or loss for U.S. federal income tax purposes upon the sale or exchange of ordinary shares in an amount equal to the difference between the U.S. dollar value of the amount realized from such sale or exchange and the U.S. holder's tax basis for those ordinary shares. Subject to the discussion under "*Passive Foreign Investment Company Considerations*" below, this gain or loss will generally be a capital gain or loss and will generally be treated as from sources within the United States. Such capital gain or loss will be treated as long-term capital gain or loss if the U.S. holder has held the ordinary shares for more than one year at the time of the sale or exchange. Long-term capital gains of non-corporate U.S. holders may be eligible for a preferential tax rate; the deductibility of capital losses is subject to limitations. For a cash basis taxpayer, units of foreign currency paid or received are translated into U.S. dollars at the spot rate on the settlement date of the purchase or sale. In that case, no foreign currency exchange gain or loss will result from

currency fluctuations between the trade date and the settlement date of such a purchase or sale. An accrual basis taxpayer, however, may elect the same treatment required of cash basis taxpayers with respect to purchases and sales of the ADSs that are traded on an established securities market, provided the election is applied consistently from year to year. Such election may not be changed without the consent of the IRS. For an accrual basis taxpayer who does not make such election, units of foreign currency paid or received are translated into U.S. dollars at the spot rate on the trade date of the purchase or sale. Such an accrual basis taxpayer may recognize exchange gain or loss based on currency fluctuations between the trade date and settlement date. Any foreign currency gain or loss a U.S. holder realizes will be U.S. source ordinary income or loss.

Medicare Tax

An additional 3.8% tax, or "Medicare Tax", is imposed on all or a portion of the "net investment income" (which includes taxable dividends and net capital gains, adjusted for deductions properly allocable to such dividends or net capital gains) received by (i) U.S. holders that are individuals with modified adjusted gross income of over $200,000 ($250,000 in the case of joint filers, $125,000 in the case of married individuals filing separately) and (ii) certain trusts or estates.

Passive Foreign Investment Company Considerations

A corporation organized outside the United States generally will be classified as a passive foreign investment company, or PFIC, for U.S. federal income tax purposes in any taxable year in which, after applying the applicable look-through rules, either: (i) at least 75% of its gross income is passive income, or (ii) on average at least 50% of the gross value of its assets is attributable to assets that produce passive income or are held for the production of passive income. In arriving at this calculation, a pro rata portion of the income and assets of each corporation in which we own, directly or indirectly, at least a 25% interest, as determined by the value of such corporation, must be taken into account. Passive income for this purpose generally includes dividends, interest, royalties, rents and gains from commodities and securities transactions.

We believe that we were not a PFIC for any previous taxable year. Based on our estimated gross income, the average value of our gross assets, and the nature of the active businesses conducted by our "25% or greater" owned subsidiaries, we do not believe that we will be classified as a PFIC in the current taxable year. Our status for any taxable year will depend on our assets and activities in each year, and because this is a factual determination made annually after the end of each taxable year, there can be no assurance that we will not be considered a PFIC for the current taxable year or any future taxable year. The market value of our assets may be determined in large part by reference to the market price of the ADSs and our ordinary shares, which is likely to fluctuate after the offering (and may fluctuate considerably given that market prices of life sciences companies can be especially volatile). In addition, the composition of our income and assets will be affected by how, and how quickly, we spend the cash we raise in this offering.

If we were a PFIC for any taxable year during which a U.S. holder held ordinary shares, under the "default PFIC regime" (i.e., in the absence of one of the elections described below) gain recognized by the U.S. holder on a sale or other disposition (including a pledge) of the ordinary shares would be allocated ratably over the U.S. holder's holding period for the ordinary shares. The amounts allocated to the taxable year of the sale or other disposition and to any year before we became a PFIC would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest rate in effect for individuals or corporations, as appropriate, for that taxable year, and an interest charge would be imposed on the resulting tax liability for that taxable year. Similar rules would apply to the extent any distribution in respect of ordinary shares exceeds 125% of the average of the annual distributions on ordinary shares received by a U.S. holder during the preceding three years or the holder's holding period, whichever is shorter.

In the event we were treated as a PFIC, the tax consequences under the default PFIC regime described above could be avoided by either a "mark-to-market" or "qualified electing fund" election. A U.S. holder making a mark-to-market election (if the eligibility requirements for such an election were satisfied) generally would not be subject to the PFIC rules discussed above, except with respect to any portion of the holder's holding period that preceded the effective date of the election. Instead, the electing holder would include in ordinary income, for each taxable year in which we were a PFIC, an amount equal to any excess of (a) the fair market value of the ordinary shares as of the close of such taxable year over (b) the electing holder's adjusted tax basis in such ordinary shares. In addition, an electing holder would be allowed a deduction in an amount equal to the lesser of (a) the excess, if any, of (i) the electing holder's adjusted tax basis in the ordinary shares over (ii) the fair market value of such ordinary shares as of the close of such taxable year or (b) the excess, if any, of (i) the amount included in ordinary income because of the election for prior taxable years over (ii) the amount allowed as a deduction because of the election for prior taxable years. The election would cause adjustments in the electing holder's tax basis in the ordinary shares to reflect the amount included in gross income or allowed as a deduction because of the election. In addition, upon a sale or other taxable disposition of ordinary shares, an electing holder would recognize ordinary income or loss (not to exceed the excess, if any, of (a) the amount included in ordinary income because of the election for prior taxable years over (b) the amount allowed as a deduction because of the election for prior taxable years).

Alternatively, a U.S. holder making a valid and timely "QEF election" generally would not be subject to the default PFIC regime discussed above. Instead, for each PFIC year to which such an election applied, the electing holder would be subject to U.S. federal income tax on the electing holder's pro rata share of our net capital gain and ordinary earnings, regardless of whether such amounts were actually distributed to the electing holder. However, because we do not intend to prepare or provide the information that would permit the making of a valid QEF election, that election will not be available to U.S. holders.

If we were considered a PFIC for the current taxable year or any future taxable year, a U.S. holder would be required to file annual information returns for such year, whether or not the U.S. holder disposed of any ordinary shares or received any distributions in respect of ordinary shares during such year.

Backup Withholding and Information Reporting

U.S. holders generally will be subject to information reporting requirements with respect to dividends on ordinary shares and on the proceeds from the sale, exchange or disposition of ordinary shares that are paid within the United States or through U.S.-related financial intermediaries, unless the U.S. holder is an "exempt recipient." In addition, U.S. holders may be subject to backup withholding (at a 24% rate) on such payments, unless the U.S. holder provides a taxpayer identification number and a duly executed IRS Form W-9 or otherwise establishes an exemption. Backup withholding is not an additional tax, and the amount of any backup withholding will be allowed as a credit against a U.S. holder's U.S. federal income tax liability and may entitle such holder to a refund, provided that the required information is timely furnished to the IRS.

Foreign Account Tax Compliance Act, or FATCA, and Related Provisions

Under certain circumstances, the Company or its paying agent may be required, pursuant to the FATCA provisions of the Code (or analogous provisions of non-U.S. law) and regulations or pronouncements thereunder, any "intergovernmental agreement" entered into pursuant to those provisions or any U.S. or non-U.S. fiscal or regulatory legislation, rules, guidance notes or practices adopted pursuant to any such agreement, to withhold U.S. tax at a rate of 30% on all or a portion of payments of dividends or other corporate distributions which are treated as "foreign passthru payments" made on or after the earlier of (i) January 1, 2019 and (ii) the date of publication of final regulations defining the term "foreign passthru payment," if such payments are not exempt from such withholding. The Company believes, and this discussion assumes, that the Company is not a "foreign financial institution" for purposes of FATCA. The rules regarding FATCA and "foreign pass-thru payments," including the treatment of proceeds from the disposition of ordinary shares, are not completely clear, and further guidance may be issued by the IRS that would clarify how FATCA might apply to dividends or other amounts paid on or with respect to ordinary shares.

Foreign Asset Reporting

In addition, certain individuals who are U.S. Holders may be required to file IRS Form 8938 to report the ownership of "specified foreign financial assets" if the total value of those assets exceeds an applicable threshold amount (subject to certain exceptions). For these purposes, a specified foreign financial asset may include not only a financial account (as defined for these purposes) maintained by a non-U.S. financial institution, but also stock or securities issued by a non-U.S. corporation (such as the Company). Certain U.S. entities may also be required to file IRS Form 8938 in the future.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We are subject to the informational requirements of the Exchange Act. Accordingly, we are required to file reports and other information with the SEC, including annual reports on Form 20-F and reports on Form 6-K. You may inspect and copy reports and other information filed with the SEC at the Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an Internet website that contains reports and other information about issuers, like us, that file electronically with the SEC. The address of that website is www.sec.gov.

We also make available on our website, free of charge, our Annual Report and the text of our reports on Form 6-K, including any amendments to these reports, as well as certain other SEC filings, as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. Our website address is "www.summitplc.com." The information contained on our website is not incorporated by reference in this Annual Report.

Item 11: Quantitative and Qualitative Disclosures About Market Risk

Our activities expose us to a variety of financial risks: foreign currency risk, interest rate risk, credit risk and liquidity risk. Our principal financial instrument comprises cash and cash equivalents, and this is used to finance our operations. We have various other financial instruments such as other receivables and trade and other payables that arise directly from our operations. The category of loans and receivables contains only other receivables, shown on the face of the Statement of Financial Position, all of which mature within one year. We have compared fair value to book value for each class of financial asset and liability and no difference was identified, other than in respect of financial liabilities on funding arrangements. The fair value at January 31, 2018 was calculated to be £4.7 million. Further information is included in note 19 to our consolidated financial statements appearing at the end of this Annual Report. We have a policy, which has been consistently followed, of not trading in financial instruments.

Foreign Currency Risk

Foreign currency risk refers to the risk that the value of a financial commitment or recognized asset or liability will fluctuate due to changes in foreign currency rates. Our net income and financial position, as expressed in pounds sterling, are exposed to movements in foreign exchange rates against the U.S. dollar and the euro. The main trading currencies are pounds sterling, the U.S. dollar, and the euro. We are exposed to foreign currency risk as a result of operating transactions, capital raises in the United States, payment in U.S. dollars under our license and collaboration agreement with Sarepta, our license and commercialization agreement with Eurofarma and our funding agreement with BARDA, and the translation of foreign bank accounts. We monitor our exposure to foreign exchange risk. Exposures are generally managed through natural hedging via the currency denomination of cash balances and any impact currently is not material to us.

Interest Rate Risk

We do not hold any derivative instruments to manage interest rate risk.

Credit Risk

Our credit risk with respect to customers is limited and we did not have any trade receivables outstanding as of January 31, 2018. Financial instruments that potentially expose us to concentrations of credit risk consist primarily of short-term cash investments and trade accounts receivable.

Liquidity Risk

We have funded our operations since inception primarily through the issuance of equity securities. We have also received funding from our license and collaboration agreement with Sarepta and our license and commercialization agreement with Eurofarma, as well as philanthropic, non-government and not for profit organizations and patient advocacy groups and grant funding from government entities. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations through a combination of public or private equity or debt financings or other sources. Adequate additional financing may not be available to us on acceptable terms, or at all. Our inability to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy.

Item 12: Description of Securities other than Equity Securities

A. Debt Securities.

Not applicable.

B. Warrants and Rights.

Not applicable.

C. Other Securities.

Not applicable.

D. American Depositary Shares.

Fees and Expenses

The following table shows the fees and charges that a holder of our ADSs may have to pay, either directly or indirectly. The majority of these costs are set by the depositary and are subject to change:

Persons depositing or withdrawing shares or ADS holders must pay:	For:
$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	Issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property Cancellation of ADSs for the purpose of withdrawal, including if the deposit agreement terminates
$.05 (or less) per ADS	Any cash distribution to ADS holders
A fee equivalent to the fee that would be payable if securities distributed to you had been shares and the shares had been deposited for issuance of ADSs	Distribution of securities distributed to holders of deposited securities (including rights) that are distributed by the depositary to ADS holders
$.05 (or less) per ADS per calendar year	Depositary services
Registration or transfer fees	Transfer and registration of shares on our share register to or from the name of the depositary or its agent when you deposit or withdraw shares
Expenses of the depositary	Cable, telex and facsimile transmissions (when expressly provided in the deposit agreement) Converting foreign currency to U.S. dollars
Taxes and other governmental charges the depositary or the custodian has to pay on any ADSs or shares underlying ADSs, such as stock transfer taxes, stamp duty or withholding taxes	As necessary
Any charges incurred by the depositary or its agents for servicing the deposited securities	As necessary

The depositary collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may collect its annual fee for depositary services by deduction from cash distributions or by directly billing investors or by charging the book-entry system accounts of participants acting for them. The depositary may collect any of its fees by deduction from any cash distribution payable (or by selling a portion of securities or other property distributable) to ADS holders that are obligated to pay those fees. The depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

From time to time, the depositary may make payments to us to reimburse us for costs and expenses generally arising out of establishment and maintenance of the ADS program, waive fees and expenses for services provided to us by the depositary or share revenue from the fees collected from ADS holders. In performing its duties under the deposit agreement, the depositary may use brokers, dealers or other service providers that are affiliates of the depositary and that may earn or share fees or commissions.

Payment of Taxes

You will be responsible for any taxes or other governmental charges payable on your ADSs or on the deposited securities represented by any of your ADSs. The depositary may refuse to register any transfer of your ADSs or allow you to withdraw the deposited securities represented by your ADSs until those taxes or other charges are paid. It may apply payments owed to you or sell deposited securities represented by your American Depositary Shares to pay any taxes owed and you will remain liable for any deficiency. If the depositary sells deposited securities, it will, if appropriate, reduce the number of ADSs to reflect the sale and pay to ADS holders any proceeds, or send to ADS holders any property, remaining after it has paid the taxes.

PART II

Item 13: Defaults, Dividend Arrearages and Delinquencies

None.

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

A. Not applicable.

B. Not applicable.

C. Not applicable.

D. Not applicable.

E. Not applicable.

Item 15: Controls and Procedures

A. Disclosure Controls and Procedures.

We have carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) under the supervision and the participation of the company's management, which is responsible for the management of the internal controls, and which includes our Chief Executive Officer and Chief Financial Officer (our principal executive officer and principal financial officer, respectively). The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Securities Exchange Act of 1934 is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives. Based upon our evaluation of our disclosure controls and procedures as of January 31, 2018, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at a reasonable level of assurance.

B. Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed, under the supervision of the Chief Executive Officer and the Chief Financial Officer, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with International Financial Reporting Standards.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect all misstatements. Moreover, projections of any evaluation of the effectiveness of internal control to future periods are subject to a risk that controls may become inadequate because of changes in conditions and that the degree of compliance with the policies or procedures may deteriorate.

Our management has assessed the effectiveness of internal control over financial reporting as of January 31, 2018 based on the Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) 2013. Based on this assessment, our management has concluded that our internal control over financial reporting as of January 31, 2018 was effective.

C. Attestation Report of the Registered Public Accounting Firm

This report does not include an attestation report of our registered public accounting firm as we are an emerging growth company.

D. Changes in Internal Control Over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the fiscal year ended January 31, 2018 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 16A: Audit Committee Financial Expert

The members of our audit committee are Mr. Wurzer, Mr. Zambeletti and Ms. Andrews. Mr. Wurzer is the chair of the audit committee. Each of our audit committee members satisfies the independence requirements of Rule 5605(a)(2) of the Nasdaq Stock Market Marketplace Rules and the independence requirements of Rule 10A-3(b)(1) under the Exchange Act. Our board of directors has determined that Mr. Wurzer is an "audit committee financial expert" as defined in Item 16A of Form 20-F.

Item 16B: Code of Ethics

Our Code of Business Conduct and Ethics is applicable to all of our employees, officers and directors and is available on our website at http://www.summitplc.com. Our Code of Business Conduct and Ethics provides that our directors and officers are expected to avoid any action, position or interest that conflicts with the interests of our company or gives the appearance of a conflict. Our directors and officers have an obligation under our Code of Business Conduct and Ethics to advance our company's interests when the opportunity to do so arises. We expect that any amendment to this code, or any waivers of its requirements, will be disclosed on our website. Information contained on, or that can be accessed through, our website is not incorporated by reference into this Annual Report, and you should not consider information on our website to be part of this Annual Report.

Item 16C: Principal Accountant Fees and Services

The following table sets forth, for each of the years indicated, the aggregate fees billed to us for services rendered by PricewaterhouseCoopers LLP, our independent registered public accounting firm.

	Year Ended January 31,	
	2018	2017
	(in thousands)	
Audit Fees	£ 341	£ 230
Audit-Related Fees [(1)]	118	166
Tax Fees [(2)]	23	62
All Other Fees [(3)]	—	—
Total	£ 482	£ 458

(1) For the year ended January 31, 2018, audit-related fees includes assurance reporting in connection with our underwritten public offering in September 2017. These amounts were recognized directly in share premium. For the year ended January 31, 2017, audit-related fees includes assurance reporting in connection with our registration statement on Form F-3 that was originally filed with the U.S. Securities and Exchange Commission on May 12, 2016.

(2) Fees relate to the aggregated fees for services rendered on tax compliance, tax advice and tax planning.

(3) No fees incurred in this category.

Item 16D: Exemptions from the Listing Standards for Audit Committees

Not applicable.

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

Not applicable.

Item 16F: Change in Registrant's Certifying Accountant

Not applicable.

Item 16G: Corporate Governance

The Sarbanes-Oxley Act of 2002, as well as related rules subsequently implemented by the SEC, requires foreign private issuers, including our company, to comply with various corporate governance practices. In addition, Nasdaq rules provide that foreign private issuers may follow home country practice in lieu of the Nasdaq corporate governance standards, subject to certain exceptions and except to the extent that such exemptions would be contrary to U.S. federal securities laws. The home country practices followed by our company in lieu of Nasdaq rules are described below:

- We do not follow Nasdaq's quorum requirements applicable to meetings of shareholders. Such quorum requirements are not required under U.K. law. In accordance with generally accepted business practice, our articles of association provide alternative quorum requirements that are generally applicable to meetings of shareholders.

- We do not follow Nasdaq's requirements that non-management directors meet on a regular basis without management present. Our board of directors may choose to meet in executive session at their discretion.

- We do not follow Nasdaq's requirements to seek shareholder approval for the implementation of certain equity compensation plans, the issuances of ordinary shares under such plans, or in connection with certain private placements of equity securities. In accordance with U.K. law, we are not required to seek shareholder approval to allot ordinary shares in connection with applicable employee equity compensation plans. We will follow U.K. law with respect to any requirement to obtain shareholder approval prior to any private placements of equity securities.

We intend to take all actions necessary for us to maintain compliance as a foreign private issuer under the applicable corporate governance requirements of the Sarbanes-Oxley Act of 2002, the rules adopted by the SEC and Nasdaq's listing standards.

Because we are a foreign private issuer, our directors and senior management are not subject to short-swing profit and insider trading reporting obligations under Section 16 of the U.S. Securities Exchange Act of 1934, as amended, or Exchange Act. They are, however, subject to the obligations to report changes in share ownership under Section 13 of the Exchange Act and related SEC rules.

Item 16H: Mine Safety Disclosure

Not applicable.

PART III

Item 17: Financial Statements

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

Item 18: Financial Statements

The financial statements are filed as part of this Annual Report beginning on page F-1.

Item 19: Exhibits

Exhibit No.	Description
1.1	Articles of Association of Summit Therapeutics plc (incorporated by reference to Exhibit 3.1 to the Company's Registration Statement on Form F-1 (File No. 333-201807), as amended, filed with the Securities and Exchange Commission on February 20, 2015)
2.1	Specimen certificate evidencing ordinary shares of Summit Therapeutics plc (incorporated by reference to Exhibit 4.5 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
2.2	Form of Deposit Agreement among Summit Therapeutics plc, The Bank of New York Mellon, as depositary, and all Owners and Holders of ADSs issued thereunder (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form F-1 (File No. 333-201807), as amended, filed with the Securities and Exchange Commission on February 20, 2015)
2.3	Form of American Depositary Receipt (included in Exhibit 2.2) (incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form F-1 (File No. 333-201807), as amended, filed with the Securities and Exchange Commission on February 20, 2015)
2.4	Warrant Instrument, dated April 4, 2012, creating warrant to subscribe for shares in Summit Therapeutics plc issued to Singer Capital Markets Limited (incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
2.5	Warrant Instrument, dated November 22, 2013, relating to Warrants in Registered Form to Subscribe for Ordinary Shares in Summit Therapeutics plc (incorporated by reference to Exhibit 4.4 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.1†	Grant Agreement, entered into as of December 15, 2011, by and between Duchenne Partners Fund and Summit Therapeutics plc (incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.2†	MDA Venture Philanthropy Grant Contract, entered into as of December 15, 2011, by and between Muscular Dystrophy Association, Inc. and Summit Therapeutics plc (incorporated by reference to Exhibit 10.2 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.3†	Translation Award Funding Agreement, entered into as of October 19, 2012, by and between the Wellcome Trust Limited and Summit Therapeutics plc (incorporated by reference to Exhibit 10.3 to the Company's Registration Statement on Form F-1 (File No. 333-201807), as amended, filed with the Securities and Exchange Commission on February 27, 2015)
4.4†	Agreement for the Sponsorship of a Research Programme, dated November 22, 2013, by and between The Chancellor Masters and Scholars of the University of Oxford; Isis Innovation Limited; and Summit Therapeutics plc (incorporated by reference to Exhibit 10.4 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.5†	Deed of License of Know-How, dated November 22, 2013, by and between Isis Innovation Limited and MuOx Limited (incorporated by reference to Exhibit 10.5 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.6†	Supplemental Variation Deed, dated July 24, 2014, by and between Isis Innovation Limited and MuOx Limited (incorporated by reference to Exhibit 10.6 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.7†	Option Agreement, dated November 22, 2013, by and between The Chancellor Masters and Scholars of the University of Oxford, Isis Innovation Limited and Summit Therapeutics plc (incorporated by reference to Exhibit 10.7 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.8†	Variation Agreement, dated July 16, 2014, by and between The Chancellor Masters and Scholars of the University of Oxford, Isis Innovation Limited and Summit Therapeutics plc (incorporated by reference to Exhibit 10.8 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.9	Lease, dated June 21, 2013, by and between MEPC Milton Park No. 1 Limited and MEPC Milton Park No. 2 Limited on behalf of MEPC Milton LP and Summit Therapeutics plc (incorporated by reference to Exhibit 10.9 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)

Exhibit No.	Description
4.10	Service Agreement, effective as of January 14, 2015, by and between Cambridge Innovation Center and Summit Therapeutics Inc. (incorporated by reference to Exhibit 10.10 to the Company's Registration Statement on Form F-1 (File No. 333-201807), as amended, filed with the Securities and Exchange Commission on February 20, 2015)
4.11	2005 Enterprise Management Incentive Scheme (incorporated by reference to Exhibit 10.11 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.12	Letter of Appointment, dated November 20, 2014, by and between Summit Therapeutics Inc. and Valerie Andrews (incorporated by reference to Exhibit 10.12 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.13	Letter of Appointment, dated November 21, 2012, by and between Summit Therapeutics plc and Frank Armstrong (incorporated by reference to Exhibit 10.13 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.14	Letter of Appointment, dated December 19, 2013, by and between Summit Therapeutics plc and Stephen Davies (incorporated by reference to Exhibit 10.14 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.15	Letter of Appointment, dated August 8, 2013, by and between Summit Therapeutics plc and Barry Price (incorporated by reference to Exhibit 10.15 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.16	Letter of Appointment, dated April 16, 2014, by and between Summit Therapeutics plc and Leopoldo Zambeletti (incorporated by reference to Exhibit 10.16 to the Company's Registration Statement on Form F-1 (File No. 333-201807), filed with the Securities and Exchange Commission on January 30, 2015)
4.17	Letter of Appointment, dated February 18, 2015, by and between Summit Therapeutics plc and David Wurzer (incorporated by reference to Exhibit 10.17 to the Company's Registration Statement on Form F-1 (File No. 333-201807), as amended, filed with the Securities and Exchange Commission on February 20, 2015)
4.18	Form of Deed of Indemnity (incorporated by reference to Exhibit 10.18 to the Company's Registration Statement on Form F-1 (File No. 333-201807), as amended, filed with the Securities and Exchange Commission on February 20, 2015)
4.19	Deed of Variation, dated November 16, 2015, relating to the Warrant Instrument, dated November 22, 2013 (incorporated by reference to Exhibit 4.19 to the Company's Annual Report on Form 20-F (File No. 001-36866), filed with the Securities and Exchange Commission on May 12, 2016)
4.20†	Variation Agreement, dated November 16, 2015, relating to the Option Agreement, dated November 22, 2013, by and between the University of Oxford, Isis Innovation Limited and Summit Therapeutics plc (incorporated by reference to Exhibit 4.20 to the Company's Annual Report on Form 20-F (File No. 001-36866), filed with the Securities and Exchange Commission on May 12, 2016)
4.21†	Second Variation Agreement, dated November 16, 2015, relating to the Agreement for the Sponsorship of a Research Programme, dated November 22, 2013, by and between the Chancellor Masters and Scholars of the University of Oxford, Isis Innovation Limited and Summit Therapeutics plc (incorporated by reference to Exhibit 4.21 to the Company's Annual Report on Form 20-F (File No. 001-36866), filed with the Securities and Exchange Commission on May 12, 2016)
4.22	2016 Long Term Incentive Plan (incorporated by reference to Exhibit 4.22 to the Company's Annual Report on Form 20-F (File No. 001-36866), filed with the Securities and Exchange Commission on May 12, 2016)
4.23†	License and Collaboration Agreement, dated October 3, 2016, by and between Summit (Oxford) Ltd. and Sarepta Therapeutics, Inc. (incorporated by reference to Exhibit 4.23 to the Company's Annual Report on Form 20-F (File No. 001-36866), filed with the Securities and Exchange Commission on March 30, 2017)
4.24†	Deed of Novation and Variation, dated March 3, 2017, among MuOx Limited, Oxford University Innovation Limited (formerly Isis Innovation Limited) and Summit (Oxford) Limited (incorporated by reference to Exhibit 4.24 to the Company's Annual Report on Form 20-F (File No. 001-36866), filed with the Securities and Exchange Commission on March 30, 2017)
4.25	Lease, dated February 17, 2017, by and among MEPC Milton Park No. 1 Limited, MEPC Milton Park No. 2 Limited and Summit Therapeutics plc (incorporated by reference to Exhibit 4.25 to the Company's Annual Report on Form 20-F (File No. 001-36866), filed with the Securities and Exchange Commission on March 30, 2017)
4.26*+	Agreement, dated September 5, 2017, by and between Summit (Oxford) Limited and the U.S. Department of Health and Human Services Biomedical Advanced Research and Development Authority (BARDA)

Exhibit No.	Description
4.27*+	License and Commercialization Agreement, dated December 18, 2017, by and between Summit (Oxford) Ltd. and Eurofarma Laboratórios S.A.
4.28*+	Share Purchase Agreement, dated December 23, 2017, by and among Summit Therapeutics plc and the shareholders of Discuva Limited (1)
4.29*+	Transfer Incentive Agreement, dated December 23, 2017, by and among Discuva Limited and certain of its managers.
4.30*+	Third Variation Agreement, dated September 20, 2017, by and among the Chancellor Masters and Scholars of the University of Oxford, Oxford University Innovation Limited and Summit Therapeutics plc
4.31*	Lease, dated December 22, 2017, by and between Merrifield Centre Ltd and Discuva Limited
4.32*+	Equity and Revenue Sharing Agreement, dated October 16, 2017, by and between Summit (Oxford) Limited and the Wellcome Trust Limited
4.33*	Form of Non-Executive Director Restricted Stock Unit (RSU) Agreement
8.1*	Subsidiaries of Summit Therapeutics plc
12.1*	Certification of Chief Executive Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a) as adopted pursuant to §302 of the Sarbanes-Oxley Act of 2002
12.2*	Certification of Chief Financial Officer pursuant to Securities Exchange Act Rules 13a-14(a) and 15d-14(a) as adopted pursuant to §302 of the Sarbanes-Oxley Act of 2002
13.1*	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002
15.1*	Consent of PricewaterhouseCoopers LLP
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Labels Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

*	Filed herewith.
†	Confidential treatment has been granted as to certain portions of the exhibit. Confidential materials omitted and filed separately with the Securities and Exchange Commission.
+	Confidential treatment has been requested as to certain portions of the exhibit. Confidential materials omitted and filed separately with the Securities and Exchange Commission.
(1)	The schedules and exhibits to the Share Purchase Agreement have been omitted. A copy of any omitted schedule or exhibit will be furnished to the Securities and Exchange Commission upon request.

SIGNATURES

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

SUMMIT THERAPEUTICS PLC

By:	/s/ Glyn Edwards
Name:	Glyn Edwards
Title:	Chief Executive Officer

Date: April 13, 2018

SUMMIT THERAPEUTICS PLC

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Summit Therapeutics plc

Opinion on the Financial Statements

We have audited the accompanying consolidated statement of financial position of Summit Therapeutics plc and its subsidiaries as of January 31, 2018 and January 31, 2017, and the related consolidated statements of comprehensive income, of changes in equity and of cash flows for each of the three years in the period ended January 31, 2018 including the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of January 31, 2018 and January 31, 2017, and the results of their operations and their cash flows for each of the three years in the period ended January 31, 2018 in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP
Reading, United Kingdom
April 11, 2018

We have served as the Company's auditor since 2013.

Consolidated Statement of Financial Position
At January 31, 2018 and 2017

	Note	**January 31, 2018**	January 31, 2017
		£000	£000
ASSETS			
Non-current assets			
Goodwill	12	**2,478**	664
Intangible assets	13	**14,785**	3,470
Property, plant and equipment	14	**809**	116
		18,072	4,250
Current assets			
Prepayments and other receivables	15	**11,134**	1,027
Current tax receivable		**4,654**	4,248
Cash and cash equivalents		**20,102**	28,062
		35,890	33,337
Total assets		**53,962**	37,587
LIABILITIES			
Non-current liabilities			
Deferred revenue	17	**(18,033)**	(23,615)
Financial liabilities on funding arrangements	18	**(3,090)**	(5,919)
Provisions for other liabilities and charges	20	**(1,641)**	(85)
Deferred tax liability	21	**(2,379)**	(565)
		(25,143)	(30,184)
Current liabilities			
Trade and other payables	16	**(8,932)**	(3,984)
Deferred revenue	17	**(10,012)**	(6,912)
		(18,944)	(10,896)
Total liabilities		**(44,087)**	(41,080)
Net assets / (liabilities)		**9,875**	(3,493)
EQUITY			
Share capital	22	**736**	618
Share premium account		**60,237**	46,420
Share-based payment reserve		**6,743**	5,136
Merger reserve		**3,027**	(1,943)
Special reserve		**19,993**	19,993
Currency translation reserve		**37**	50
Accumulated losses reserve		**(80,898)**	(73,767)
Total equity / (deficit)		**9,875**	(3,493)

The accompanying notes form an integral part of these Consolidated Financial Statements.

Consolidated Statement of Comprehensive Income
For the year ended January 31, 2018, 2017 and 2016

	Note	**Year ended January 31, 2018**	Year ended January 31, 2017	Year ended January 31, 2016
		£000	£000	£000
Revenue	5	**25,419**	2,304	—
Other operating income	7	**2,725**	72	1,281
Operating expenses				
Research and development	7	**(28,970)**	(18,952)	(16,856)
General and administration	7	**(11,999)**	(8,277)	(4,771)
Total operating expenses		**(40,969)**	(27,229)	(21,627)
Operating loss		**(12,825)**	(24,853)	(20,346)
Finance income	9	**3,096**	8	30
Finance cost	9	**(1,164)**	(862)	(2,879)
Loss before income tax		**(10,893)**	(25,707)	(23,195)
Income tax	10	**3,762**	4,336	3,058
Loss for the year		**(7,131)**	(21,371)	(20,137)
Other comprehensive (loss) / income				
Items that may be reclassified subsequently to profit or loss				
Exchange differences on translating foreign operations		**(13)**	29	(41)
Total comprehensive loss		**(7,144)**	(21,342)	(20,178)
Basic and diluted earnings per Ordinary Share from operations	11	**(11) p**	**(35) p**	**(34) p**

The accompanying notes form an integral part of these Consolidated Financial Statements.

Consolidated Statement of Cash Flows
For the year ended January 31, 2018, 2017 and 2016

	Note	**Year ended January 31, 2018 £000s**	Year ended January 31, 2017 £000s	Year ended January 31, 2016 £000s
Cash flows from operating activities				
Loss before income tax		**(10,893)**	(25,707)	(23,195)
		(10,893)	(25,707)	(23,195)
Adjusted for:				
Other operating income on derecognition of financial liabilities on funding arrangements	18	**(908)**	—	—
Finance income	9	**(3,096)**	(8)	(30)
Finance cost	9	**1,164**	862	2,879
Foreign exchange loss / (gain)		**1,960**	711	(169)
Depreciation	14	**140**	48	38
Amortization of intangible fixed assets	13	**106**	10	10
Loss on disposal of assets	13,14	**40**	—	—
Movement in provisions	20	**(60)**	12	28
Research and development expenditure credit	7	**(23)**	(3)	(44)
Share-based payment	6	**1,607**	1,379	1,160
Adjusted loss from operations before changes in working capital		**(9,963)**	(22,696)	(19,323)
(Increase) / decrease in prepayments and other receivables		**(8,993)**	492	1,106
(Decrease) / increase in deferred revenue		**(2,482)**	30,527	—
Increase / (decrease) in trade and other payables		**3,375**	813	(366)
Cash (used by) / generated from operations		**(18,063)**	9,136	(18,583)
Taxation received		**3,374**	3,005	1,401
Net cash (used by) / generated from operating activities		**(14,689)**	12,141	(17,182)
Investing activities				
Acquisition of subsidiaries net of cash acquired	27	**(4,775)**	—	—
Purchase of property, plant and equipment		**(360)**	(81)	(66)
Purchase of intangible assets		**(119)**	(7)	—
Interest received		**12**	8	30
Net cash used in investing activities		**(5,242)**	(80)	(36)
Financing activities				
Proceeds from issue of share capital		**14,931**	—	26,101
Transaction costs on share capital issued		**(1,428)**	—	(4,187)
Proceeds from exercise of warrants		**10**	107	—
Proceeds from exercise of share options		**392**	283	222
Cash received from funding arrangements accounted for as financial liabilities	18	**—**	23	—
Net cash generated from financing activities		**13,905**	413	22,136
(Decrease) / increase in cash and cash equivalents		**(6,026)**	12,474	4,918
Effect of exchange rates on cash and cash equivalents		**(1,934)**	(716)	121
Cash and cash equivalents at beginning of the year		**28,062**	16,304	11,265
Cash and cash equivalents at end of the year		**20,102**	28,062	16,304

The accompanying notes form an integral part of these Consolidated Financial Statements.

Consolidated Statement of Changes in Equity
Year ended January 31, 2018, 2017 and 2016

Year ended January 31, 2018

Group	Share capital £000s	Share premium account £000s	Share-based payment reserve £000s	Merger reserve £000s	Special reserve £000s	Currency translation reserve £000s	Accumulated losses reserve £000s	Total Equity £000s
At February 1, 2017	618	46,420	5,136	(1,943)	19,993	50	(73,767)	(3,493)
Loss for the year	—	—	—	—	—	—	(7,131)	(7,131)
Currency translation adjustment	—	—	—	—	—	(13)		(13)
Total comprehensive loss for the year	—	—	—	—	—	(13)	(7,131)	(7,144)
New share capital issued	84	14,847	—	—	—	—	—	14,931
Transaction costs on share capital issued	—	(1,428)	—	—	—	—	—	(1,428)
Issue of ordinary shares as consideration for a business combination	30	—	—	4,970	—	—	—	5,000
New share capital issued from exercise of warrants	1	9	—	—	—	—	—	10
Share options exercised	3	389	—	—	—	—	—	392
Share-based payment	—	—	1,607	—	—	—	—	1,607
At January 31, 2018	736	60,237	6,743	3,027	19,993	37	(80,898)	9,875

Year ended January 31, 2017

Group	Share capital £000s	Share premium account £000s	Share-based payment reserve £000s	Merger reserve £000s	Special reserve £000s	Currency translation reserve £000s	Accumulated losses reserve £000s	Total Equity £000s
At February 1, 2016	613	46,035	3,757	(1,943)	19,993	21	(52,396)	16,080
Loss for the year	—	—	—	—	—	—	(21,371)	(21,371)
Currency translation adjustment	—	—	—	—	—	29	—	29
Total comprehensive loss for the year	—	—	—	—	—	29	(21,371)	(21,342)
New share capital issued from exercise of warrants	2	105	—	—	—	—	—	107
Share options exercised	3	280	—	—	—	—	—	283
Share-based payment	—	—	1,379		—	—	—	1,379
At January 31, 2017	618	46,420	5,136	(1,943)	19,993	50	(73,767)	(3,493)

Year ended January 31, 2016

Group	Share capital £000s	Share premium account £000s	Share-based payment reserve £000s	Merger reserve £000s	Special reserve £000s	Currency translation reserve £000s	Accumulated losses reserve £000s	Total Equity £000s
At February 1, 2015	411	24,101	2,597	(1,943)	19,993	62	(32,259)	12,962
Loss for the year	—	—	—	—	—	—	(20,137)	(20,13)
Currency translation adjustment	—	—	—	—	—	(41)		(41)
Total comprehensive loss for the year	—	—	—	—	—	(41)	(20,137)	(20,17)
New share capital issued	198	25,903	—	—	—	—	—	26,101
Transaction costs on share capital issued	—	(4,187)	—	—	—	—	—	(4,187)
Share options exercised	4	218	—	—	—	—	—	222
Share-based payment	—	—	1,160		—	—	—	1,160
At January 31, 2016	613	46,035	3,757	(1,943)	19,993	21	(52,396)	16,080

The accompanying notes form an integral part of these Consolidated Financial Statements.

Share capital and premium

When shares are issued, the nominal value of the shares is credited to the share capital reserve. Any premium paid above the nominal value is credited to the share premium reserve. Ordinary Shares of Summit Therapeutics plc have a nominal value of one penny per share.

Share-based payment reserve

The share-based payment reserve arises as the expense of issuing share-based payments is recognized over time (share option grants). The reserve will fall as share options vest and are exercised, and the impact of the subsequent dilution of earnings crystallizes, but the reserve may equally rise or might see any reduction offset, as new potentially dilutive share options are issued.

Merger reserve

A merger reserve arises as a result of certain requirements in the United Kingdom relating to business combination accounting. The merger reserve brought forward relates to the difference between the nominal value of Summit (Oxford) Limited and fair value of shares issued in business combinations using the acquisition method of accounting arising from the Group reconstruction in 2004. The merger reserve arising during the financial year relates to the difference between the nominal value of Discuva Limited and fair value of shares issued in business combinations using the acquisition method of accounting arising from the acquisition.

Accumulated losses reserve

The accumulated losses reserve records the accumulated profits and losses, less any subsequent elimination of losses, of the Group since inception of the business. Where businesses or companies are acquired, only the profits or losses arising from the date of acquisition are included.

Special reserve

The special reserve was created during the consolidation and subdivision of the Company's share capital as part of a capital reorganization completed in September 2014. It represents the net balance of the cancellation of the Deferred Shares, the reduction of the share premium account and elimination of current losses from the accumulated deficit.

Currency translation reserve

The currency translation reserve records the foreign exchange difference that arises on the translation of the US subsidiary, Summit Therapeutics Inc.

Notes to the Financial Statements

1. Basis of accounting

The principal accounting policies adopted by Summit Therapeutics plc and its subsidiaries in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

Basis of preparation

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards and IFRS Interpretations Committee interpretations ('IFRS') as issued by the IASB. The Consolidated Financial Statements have been prepared on a going concern basis and under the historical cost convention. These consolidated financial statements were authorized by the Board of Directors on April 11, 2018.

Going concern

The financial information in these financial statements has been prepared on a going concern basis which assumes that the Group will continue in operational existence for the foreseeable future.

The Group expects it will need to raise additional funding in the future in order to support research and development efforts, potential commercialization-related activities if any of its product candidates receive marketing approval, as well as to support activities associated with operating as a public company in both the United States and the United Kingdom. Management expects to finance its cash needs through a combination of some, or all, of the following: equity offerings, collaborations, strategic alliances, grants and clinical trial support from government entities, philanthropic, non-government and not for profit organizations and patient advocacy groups, debt financings, and marketing, distribution or licensing arrangements.

After review of the future operating costs of the business in conjunction with the cash held at January 31, 2018, management is confident about the Group’s ability to continue as a going concern.

Use of estimates

The preparation of the financial statements, in conformity with IFRS, requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Although these estimates are based on management’s best knowledge of the amount, event or actions, actual results may ultimately differ from those estimates. The areas involving higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 2 ‘Critical accounting judgements and key sources of estimation uncertainty’.

Basis of consolidation

The Consolidated Financial Statements incorporate the financial statements of the Group and entities controlled by the Group made up to the reporting date. Control is achieved where the Company has the power to govern the financial and operating policies of an investee entity so as to obtain benefits from its activities.

The results of subsidiary undertakings acquired or disposed of in the year are included in the Consolidated Statement of Comprehensive Income from the effective date of acquisition or up to the effective date of disposal, as appropriate. Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with those used by the Group.

All intra-group transactions, balances, income and expenses are eliminated on consolidation.

Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable and represents amounts receivable for goods and services provided in the normal course of business net of value added tax and other sales-related taxes. The Group recognizes revenue when the amount can be reliably measured; when it is probable that future economic benefits will flow to the Group; and when specific criteria have been met for each of the Group’s activities.

Licensing agreements may consist of multiple elements and provide for varying consideration terms, such as upfront, development, regulatory and sales milestones, and sales royalties and similar payments. Where such arrangements can be divided into separate units of accounting (each unit constituting a separate earnings process), the arrangement consideration is allocated to the different units based on their relative fair values and recognized over the respective performance period.

1. Basis of accounting (continued)

Revenues from non-refundable, upfront payments are assessed as to whether they relate to the provision of a license or development services. Upfront payments classified as the provision of a license are recognized in full immediately while revenue related to further development services are initially reported as deferred revenue on the Consolidated Statement of Financial Position and are recognized as revenue over the development period.

Development and regulatory approval milestone payments are recognized as revenue based on the percentage of completion method on the assumption that all stages will be completed successfully. The cumulative revenue recognized is limited to non-refundable amounts already received or reasonably certain to be received.

Revenues attributable to the development cost share element of a contract are recognized on an accruals basis as the underlying expenditure is incurred in accordance with the terms of the relevant agreement.

Royalty revenue is recognized on an accrual basis in accordance with the substance of the relevant agreement, provided that it is probable that the economic benefits will flow to the Group and the amount of revenue can be measured reliably.

Sales related milestone payments are recognized in full in the period in which the relevant milestone is achieved.

Business Combinations

The cost of an acquisition is measured as the fair value of the assets exchanged, equity instruments issued and liabilities incurred or assumed at the date of exchange. Identifiable assets acquired together with liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The excess of the cost of acquisition over the fair value of the identifiable net assets is recorded as goodwill. Goodwill is not amortized but is reviewed for impairment at least annually and more frequently whenever there is an indication of impairment. See Note 27 Business combinations for details.

Intangible Assets

In-process research and development that is separately acquired as part of a company acquisition or in-licensing agreement is capitalized even if they have not yet demonstrated technical feasibility, which is usually signified by regulatory approval. Amortization will commence when either products underpinned by the intellectual property rights or the rights themselves become available for use.

The intangible asset relating to intellectual property rights for the utrophin program capitalized as part of the acquisition of MuOx Limited in November 2013 is considered to be not yet available for use. As such, it will not be subject to amortization and will be tested for impairment at least annually or whenever there is an indicator of impairment. Amortization will commence when either products underpinned by the intellectual property rights or the rights themselves become available for use.

The intangible asset relating to the acquired discovery and development platform capitalized as part of the acquisition of Discuva Limited in December 2017 is considered to be available for use. As such, it will be subject to amortization over the period of the relevant associated patents.

Other intangible assets are amortized in equal installments over their useful estimated lives as follows:

All patents (once filed)	Over the period of the relevant patents (assumed to be 20 years)
Option over non-financial assets	Over the period of the relevant agreement

Impairment of assets

At each year end date, the Group 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.

For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units).

An impairment loss is recognized for the amount by which the asset's or cash-generating unit's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of fair value, reflecting market conditions less costs to sell, and value in use based on an internal discounted cash flow evaluation. Impairment losses recognized for cash-generating units is charged *pro rata* to the other assets in the cash generating unit. All tangible and intangible assets are subsequently reassessed for indications that an impairment loss previously recognized may no longer exist. See Note 13 'Intangible assets' for details.

1. Basis of accounting (continued)

Property, plant and equipment

Property, plant and equipment are stated at cost less depreciation. Cost comprises the purchase price plus any incidental costs of acquisition and commissioning. Depreciation is calculated to write-off the cost, less residual value, in equal annual installments over their estimated useful lives as follows:

Leasehold improvements	Over the period of the remaining lease
Laboratory equipment	3-10 years
Office and IT equipment	3-5 years

The residual value, if not insignificant, is reassessed annually.

Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, where it is probable that an outflow of resources will be required to settle the obligation, and where a reliable estimate can be made of the amount of the obligation. If the effect of the time value of money is material, the expected future cash flows will be discounted using a pre-tax discount rate, adjusted for risk where it is inherent in a specific liability.

Other operating income

Other operating income includes income received and recognized from government agencies, philanthropic, non-government, not for profit organizations and patient advocacy groups which are accounted for in accordance with IAS 20, 'Accounting for Government Grants and Disclosure of Government Assistance'. Monies received through these means are held as deferred revenue in the Consolidated Statement of Financial Position and are released to the Consolidated Statement of Comprehensive Income as the underlying expenditure is incurred and to the extent the conditions of the grant are met.

Foreign currencies

Transactions in foreign currencies are recorded at the rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the rate of exchange ruling at the year end date. All differences are taken to the Consolidated Statement of Comprehensive Income.

Assets and liabilities of subsidiaries that have a functional currency different from the presentation currency (Pound Sterling), are translated at the closing rate at the date of each statement of financial position presented. Income and expenses are translated at average exchange rates. Any resulting differences are recognized in other comprehensive (loss)/income in the Consolidated Statement of Comprehensive Income.

Employee benefits

All employee benefit costs, notably holiday pay, bonuses and contributions to Company or personal defined contribution pension schemes are charged to the Consolidated Statement of Comprehensive Income on an accruals basis.

Operating leases

Costs in respect of operating leases are charged to the Consolidated Statement of Comprehensive Income on a straight line basis over the lease term. Assets relating to lease incentives are depreciated over the life of the lease and are included in property, plant and equipment as leasehold improvements.

Research and development

All ongoing research expenditure is currently expensed in the period in which it is incurred. Due to the regulatory environment inherent in the development of the Group's products, the criteria for development costs to be recognized as an asset, as set out in IAS 38 'Intangible Assets', are not met until a product has received regulatory approval, and it is probable that future economic benefit will flow to the Group. The Group currently has no qualifying expenditure.

Cash and cash equivalents

Cash and cash equivalents include cash in hand and deposits held on call with the bank.

1. Basis of accounting (continued)

Share-based payments

In accordance with IFRS 2 'Share-based Payment', share options and restricted stock units are measured at fair value at their grant date. The fair value for the majority of the options is calculated using the Black-Scholes formula and charged to the Consolidated Statement of Comprehensive Income on a straight-line basis over the expected vesting period. For those options issued with vesting conditions other than remaining in employment (for example, those conditional upon the Group achieving certain predetermined financial criteria) either a Monte-Carlo model or a Hull White trinomial lattice model have been used. At each year end date, the Group revises its estimate of the number of options that are expected to become exercisable. This estimate is not revised according to estimates of changes in market based conditions.

Current taxation

Income tax is recognized or provided at amounts expected to be recovered or paid using the tax rates and tax laws that have been enacted or substantively enacted at the year end date.

Current tax includes research and development tax credits which are calculated in accordance with the UK research and development tax credit regime applicable to small and medium sized companies. Research and development expenditure which is not eligible for reimbursement under the small and medium sized companies regime, such as expenditure incurred on projects for which we receive income, may be reimbursed under the UK Research and Development Expenditure Credit ('RDEC') scheme. Receipts under the RDEC scheme are presented within other operating income as they are similar in nature to grant income.

Deferred taxation

Deferred tax assets and liabilities are recognized where the carrying amount of an asset or liability in the Consolidated Statement of Financial Position differs from its tax base, except for differences arising on:

- the initial recognition of goodwill;
- the initial recognition of an asset or liability in a transaction which is not a business combination and at the time of the transaction affects neither accounting or taxable profit; and
- investments in subsidiaries and jointly controlled entities where the Group is able to control the timing of the reversal of the difference, and it is probable that the difference will not reverse in the foreseeable future.

Recognition of deferred tax assets is restricted to those instances where it is probable that taxable profit will be available against which the difference can be utilized.

The amount of the asset or liability is determined using tax rates that have been enacted or substantively enacted by the reporting date and are expected to apply when the deferred tax liabilities/(assets) are settled/(recovered).

Financial instruments

The Group holds financial assets and liabilities in the respective categories 'Loans and receivables' and 'Financial liabilities measured at amortized cost'. Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise when the Group provides money, goods or services directly to the debtor with no intention of trading the receivable. They are included in current assets, except for maturities greater than 12 months after the year end date, which are classified as non-current assets. Other liabilities consist of trade and other payables, being balances arising in the course of normal business with suppliers, contractors and other service providers, and borrowings, being loans and hire purchase funds advanced for the refit of leasehold premises and the purchase of laboratory equipment, fixtures and fittings. Loans and receivables, and other liabilities are initially recorded at fair value, and thereafter at amortized cost, if the timing difference is deemed to impact the fair value of the asset or liability.

The Group assesses at each year end date whether there is objective evidence that a financial asset or a group of financial assets is impaired.

The Group does not hold or trade in derivative financial instruments.

Warrants

Warrants issued by the Group are recognized and classified as equity when upon exercise, the Company would issue a fixed amount of its own equity instruments (Ordinary Shares) in exchange for a fixed amount of cash or another financial asset.

Consideration received, net of incremental costs directly attributable to the issue of such new warrants, is shown in equity. Such warrants are not re-measured at fair value in subsequent reporting periods.

2. Critical accounting judgements and key sources of estimation uncertainty

The preparation of the Consolidated Financial Statements requires the Group to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, income and expense. Actual results may differ from those estimates.

Critical Judgements in Applying the Group's Accounting Policies

The following are the critical judgements, apart from those involving estimations, that the Directors have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognized in the Consolidated Financial Statements.

Financial liabilities on funding arrangements

When entering into funding agreements with charitable and not for profit organizations, management is required to assess whether, based on the terms of the agreement, they can avoid a transfer of cash by settling using a non-financial obligation. An example of this would be the obligation to transfer the rights to the research to a funding provider. In the circumstances where the Group cannot avoid the obligation, all or part of the funding agreement should be accounted for as a financial liability rather than as a charitable grant. The financial liabilities are re-measured, and the Group is required to apply judgement, when there is a specific significant event that provides evidence of a significant change in the probability of successful development such as the completion of a phase of research or changes in use or market for a product. See Note 18 'Financial liabilities on funding arrangements'.

Revenue Recognition

The Group recognizes revenue from licensing fees, collaboration fees, development, regulatory and approval milestone fees, sales milestones and royalties. Agreements generally include a non-refundable up-front fee, milestone payments, the receipt of which is dependent upon the achievement of certain clinical, regulatory or commercial milestones, as well as royalties on product sales of licensed products, if and when such product sales occur. For these agreements, the Group is required to apply judgement in the allocation of total agreement consideration to the separately identifiable components on a reliable basis that reasonably reflects the selling prices that might be expected to be achieved in stand-alone transactions. The Group is required to make a judgement on those components which can be recognized immediately and those to which it applies the percentage of completion revenue recognition method. In relation to the license and collaboration agreement with Sarepta and the license and commercialization agreement with Eurofarma, management has assessed that the development services to be indistinguishable from the license. As a result the upfront payment has been initially reported as deferred revenue in the Consolidated Statement of Financial Position and is being recognized as revenue over the development period. Development and regulatory approval milestone payments associated with these contracts will be recognized to the extent that the milestone event has been completed successfully. See Note 17 'Deferred revenue'.

Key sources of estimation uncertainty

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

Recognition of research expenditure

The Group recognizes expenditure incurred in carrying out its research and development activities in line with management's best estimation of the stage of completion of each separately contracted study or activity. This includes the calculation of research and development accruals at each period to account for expenditure that has been incurred. This requires estimations of the full costs to complete each study or activity and also estimation of the current stage of completion. In all cases, the full cost of each study or activity is expensed by the time the final report or where applicable, product, has been received.

Acquired intangible assets and assumed contingent liabilities valuations

When the Group executes an acquisition resulting in a business combination as accounted under IFRS 3 *Business Combinations*, identifiable intangible assets and assumed contingent liabilities are required to be recognized in the Consolidated Financial Statements at fair value. In determining the fair value of such assets and liabilities a number of assumptions need to be made by management which include significant estimates. See Note 27 'Business combinations'.

2. Critical accounting judgements and key sources of estimation uncertainty (continued)

Financial liabilities on funding arrangements

In calculating the financial liability, both at inception and when it is subsequently re-measured, a number of assumptions need to be made by management which include significant estimates. Assumptions included in the model include the following: reported disease prevalence; expected market share based on management's estimates; drug reimbursement pricing in different territories, potential licensing terms which may be offered to the Group (for relevant products); expected patent life; the timing and probabilities of achieving clinical development milestones which are based on industry standards and adjusted for therapy area and; the appropriate discount rate to be used. See Note 18 'Financial liabilities on funding arrangements'.

Share-based payment

The Group measures share options at fair value at their grant date in accordance with IFRS 2, 'Share-based Payment.' The Group calculates the fair value of the share option using either the Black-Scholes model, or for options with performance conditions, a simulation model. The Group charges the fair value to the Consolidated Statement of Comprehensive Income over the expected vesting period. See Note 23 'Share option scheme and Restricted Stock Units'.

3. Changes to accounting policies

During the year ended January 31, 2018 the following new standards, amendments to standards or interpretations became effective for the first time. The adoption of these interpretations, standards or amendment to standards were either not relevant for the Group or have not led to any significant impact on the Group's financial statements.

International Accounting Standards (IAS/IFRS)	Effective Date
Amendments resulting from Annual Improvements 2014–2016 Cycle (clarifying scope)	January 1, 2017
Amendment to IAS 7, Disclosure Initiative	January 1, 2017
Amendment to IAS 12, Recognition of Deferred Tax Assets for Unrealised Losses	January 1, 2017

At the date of signing these Consolidated Financial Statements, the following standards, amendments and interpretations, which have not been applied in these financial statements, were in issue but not yet effective:

International Accounting Standards (IAS/IFRS)	Effective Date
IFRS 9, Financial Instruments (as revised in 2014)	January 1, 2018
IFRS 15, Revenue from Contracts with Customers	January 1, 2018
Amendment to IFRS 2 Share Based Payments, Classification and Measurement of Share-based Payment Transactions	January 1, 2018
Amendments resulting from Annual Improvements 2014–2016 Cycle	January 1, 2018
IFRIC 22 Foreign Currency Transactions and Advance Consideration	January 1, 2018
IFRS 16, Leases	January 1, 2019
Amendments to IFRS 3 Business Combinations, Remeasurement of previously held interest	January 1, 2019
Amendments to IAS 12 Income Taxes, Income tax consequences of dividends	January 1, 2019
Amendments to IAS 19 Employee Benefits, Plan amendments, curtailments or settlements	January 1, 2019
Amendments to IAS 23 Borrowing Costs, Borrowing costs eligible for capitalisation	January 1, 2019
Amendments resulting from Annual Improvements 2015–2017 Cycle	January 1, 2019
IFRIC 23 Uncertainty over Income Tax Treatments	January 1, 2019
Amendment to IFRS 10 and IAS 28, Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	To be determined

IFRS 15 establishes comprehensive guidelines for determining when to recognize revenue and how much revenue to recognize. The standard is effective for reporting periods beginning on or after 1 January 2018 and replaces the accounting standard IAS 18 *Revenue*. Two adoption methods are permitted for transition: retrospectively to all prior reporting periods presented in accordance with IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*, with certain practical expedients permitted; or retrospectively with the cumulative effect of initially applying the standard recognized at the date of initial application.

3. Changes to accounting policies (continued)

The core principle in that framework is that a company should recognize revenue to depict the transfer of control of promised goods or services to the customer in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. To determine revenue recognition for arrangements that a company determines are within the scope of IFRS 15, a company performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the company satisfies a performance obligation. The standard also requires disclosure of qualitative and quantitative information about its contracts with customers, the significant judgements made in applying the Standard and any assets recognized from the costs to obtain or fulfil a contract.

The Group has elected to adopt this new standard effective February 1, 2018 as required, using the full retrospective transition method in accordance with IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors. Under this method, the Group will adjust its results for the years ended January 31, 2017 and 2018, and applicable interim periods within those years, as if IFRS 15 had been effective for those periods. To date, the Group has assessed the effect of adoption of this standard as it relates to the license and collaboration agreement with Sarepta Therapeutics Inc. (‘Sarepta’), the license and commercialization agreement with Eurofarma Laboratórios SA ('Eurofarma') and the research collaboration agreement with F. Hoffmann - La Roche Limited ('Roche'). Currently, the Group anticipates the effects of adoption of IFRS 15 to be as described below. Estimated impacts from the adoption could differ upon the final adoption and implementation of the standard. The Group will continue to monitor interpretations released by the IFRS Interpretations Committee and amendments to IFRS 15, and will adopt these from the effective dates as appropriate.

The Group expects the accounting for contingent milestone payments and development cost share income to be the most significant change in the accounting for its license and collaboration agreements. IFRS 15 requires an entity to identify goods or services (or a bundle of goods of goods or services) that are distinct where the customer can benefit from the good or service either on its own or together with other resources and the entity’s promise to transfer the good or service to the customer is separately identifiable from other promises in the contract. The Group expects this assessment to result in the license and the development services elements of the Group’s licensing agreements being identified as one performance obligation as these elements are not considered to be distinct, and this represents a critical accounting judgement for the Group. The impact of this assessment would result in the contingent milestone payments and development cost share income being recognized over the estimated development services period, with initial recognition occurring when it becomes highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur.

The Group has performed an evaluation of the expected effect of adoption on the accounting for the license and collaboration agreement with Sarepta, the license and commercialization with Eurofarma and the research collaboration agreement with Roche. The Group currently estimates the following cumulative effect to total license and collaboration agreements revenues and research collaboration agreement revenue for the year ended January 31, 2018 after the adoption of IFRS 15:

	Year ended January 31, 2018
	£000
Estimated decrease in revenue by category:	
Licensing agreements	**13,059**
Research collaboration agreement	—

The estimated decrease in collaboration and license agreement revenues for the year ended January 31, 2018 relates to the difference between the accounting treatment of the Sarepta development milestone payment and development cost share income under IAS 18 and IFRS 15 as described above, which has been recognized as revenue in full during the year ended January 31, 2018 under IAS 18. The difference will be reported as deferred revenue in the Consolidated Statement of Financial Position and recognized as revenue over the development period.

In addition to the effects on collaboration and license agreement revenues described above, the Group expects to revise balances of working capital components associated with collaboration and license agreement revenues, such as accounts receivable and deferred revenue. Overall, the Company currently expects current and non-current liabilities to increase as a result of these changes by £3.8 million and £9.2 million as of January 31, 2018 (2017: nil), respectively.

3. Changes to accounting policies (continued)

The quantitative amount provided above is an estimate of the expected effects of the Group's adoption of IFRS 15. This amount represents management's best estimates of the effects of adopting IFRS 15 at the time of the preparation of these financial statements. The actual quantitative effects of the adoption of IFRS 15 are subject to change from these estimates and such change may be significant, pending the completion of the Group's assessment in the first quarter to April 30, 2018.

Finally, IFRS 15 requires more robust disclosures than required by previous guidance, including disclosures related to disaggregation of revenue into appropriate categories, performance obligations, the judgments made in revenue recognition determinations, adjustments to revenue which relate to activities from previous quarters or years, any significant reversals of revenue, and costs to obtain or fulfill contracts.

IFRS 9 'Financial Instruments' will replace IAS 39 for accounting period beginning on or after January 1, 2018. The key changes are the classification and measurement of financial assets and financial liabilities after initial recognition, impairment of financial assets and a new criteria for reclassification. The Group has elected to adopt this new standard effective February 1, 2018 as required. The Group has performed an evaluation of the expected effect of adoption of IFRS 9 for all financial instruments within the scope of the standard and it is expected that there will be no impact on the Group's net results or net assets. The expected effects of the Group's adoption of IFRS 9 is based on management's assessment at the time of the preparation of these financial statements. The actual effects of the adoption of IFRS 9 are subject to change from this assessment and such changes may be significant, pending the completion of the Group's assessment in the first quarter to April 30, 2018.

IFRS 16 'Leases' will replace IAS 17 for accounting periods beginning on or after January 1, 2019. In so doing, it will eliminate the distinction between classification of leases as finance or operating leases for lessees. The adoption of IFRS 16 is not expected to have a significant impact on the Group's net results or net assets, although the full impact will be subject to further assessment following the conclusion of the ongoing consultations.

The Directors do not expect that the adoption of the remaining standards and interpretations in future periods will have a material impact on the financial statements of the Group.

4. Segmental reporting

The Summit Group comprises eleven legal entities, of which four are trading. These included the ten subsidiary companies and the Group holding company, Summit Therapeutics plc. The Group operates in one reportable segment: Drug Development. The chief operating decision-maker has been identified as the Executive Management Team consisting of the Chief Executive Officer, the Chief Financial Officer and the Chief Operating Officer. The Executive Management Team reviews the consolidated operating results regularly to make decisions about the financial and organizational resources and to assess overall performance.

The Drug Development segment covers Summit's research and development activities carried out by the Group, primarily comprising the DMD and the CDI programs.

The corporate and other activities of Summit Therapeutics plc, Summit (Oxford) Limited, Summit Therapeutics Inc and Discuva Limited, which comprise the costs incurred in providing the facilities, finance, human resource and information technology services, are incurred by the main segment of the Group.

Substantially all of the Group's assets are held in the United Kingdom.

5. Revenue

	Year ended January 31, 2018	Year ended January 31, 2017	Year ended January 31, 2016
	£000	£000	£000
Analysis of revenue by category:			
Licensing agreements	**25,109**	2,304	—
Research collaboration agreement	**310**	—	—
	25,419	2,304	—

Revenue recognized in the year consists of amounts received from the license and collaboration agreement with Sarepta Therapeutics, Inc., the license and commercialization agreement with Eurofarma Laboratórios S.A., and amounts received from a research collaboration agreement with F. Hoffmann-La Roche Ltd. See Note 17 ‘Deferred revenue’ for further details.

	Year ended January 31, 2018	Year ended January 31, 2017	Year ended January 31, 2016
	£000	£000	£000
Analysis of revenue by geography:			
United States	**25,067**	2,304	—
Latin America	**42**	—	—
Europe	**310**	—	—
	25,419	2,304	—

The analysis of revenue by geography has been identified on the basis of the customer’s geographical location.

6. Directors and employees

The average monthly number of employees of the Group, including Executive Directors, during the year was:

	January 31, 2018	January 31, 2017	January 31, 2016
Technical, research and development	**34**	23	19
Corporate and administration	**26**	21	18
	60	44	37

Their aggregate remuneration comprised:

	Year ended January 31, 2018	Year ended January 31, 2017	Year ended January 31, 2016
	£000	£000	£000
Wages and salaries	**7,493**	5,932	3,876
Social security costs	**643**	434	247
Other pension costs	**350**	332	90
Share-based payment	**1,607**	1,379	1,160
	10,093	8,077	5,373

6. Directors and employees (continued)

Key management of the Group are members of the Executive Management Team. The aggregate amounts of key management compensation are set out below:

	Year ended January 31, 2018 £000	Year ended January 31, 2017 £000	Year ended January 31, 2016 £000
Short-term employee benefits			
Wages and salaries	**1,520**	1,252	934
Social security costs	**162**	98	58
	1,682	1,350	992
Post-employment benefits			
Amounts paid in lieu of employer pension contributions	**32**	17	17
Other pension costs	**14**	11	—
	46	28	17
Share-based payment	**705**	327	626
Total remuneration	**2,433**	1,705	1,635

7. Loss before income tax

	Year ended January 31, 2018 £000	Year ended January 31, 2017 £000	Year ended January 31, 2016 £000
Other operating income			
Income recognized in respect of BARDA	**1,772**	—	—
Income on derecognition of the Wellcome Trust financial liability	**908**	—	—
Income recognized in respect of the Wellcome Trust	**—**	13	592
Grant income	**13**	56	645
Research and development credit	**23**	3	44
Other income	**9**	—	—
	2,725	72	1,281
Research and development			
Employee benefit expense	**5,616**	4,218	2,848
Share-based payment expense	**327**	374	356
Program related costs	**21,810**	13,605	13,093
Amortization of intangible assets	**105**	10	10
Other research and development costs	**1,112**	745	549
	28,970	18,952	16,856
General and administration			
Employee benefit expense	**2,870**	2,480	1,365
Share-based payment expense	**1,280**	1,005	804
Foreign exchange loss	**1,986**	533	(501)
Depreciation of property, plant and equipment	**141**	48	38
Loss on disposal of assets	**42**	—	—
Operating lease rentals	**289**	213	131
Other general and administration costs	**5,322**	3,998	2,934
Royalty expense	**69**	—	—
	11,999	8,277	4,771

7. Loss before income tax (continued)

In September 2017 the Group was awarded a funding contract from the Biomedical Advanced Research and Development Authority ('BARDA'), an agency of the US government's Department of Health and Human Services' Office of the Assistant Secretary for Preparedness and Response, worth up to $62 million. The BARDA contract provides for a cost-sharing arrangement under which BARDA funds a specified portion of estimated costs for specified activities related to the continued clinical and regulatory development of ridinilazole for the treatment of CDI. Under the terms of the contract, Summit is initially eligible to receive $32 million from BARDA to fund, in part, obtaining regulatory approval for and commencing enrollment and dosing into Summit's two planned Phase 3 clinical trials of ridinilazole. In addition, Summit is eligible for additional funding under the contract pursuant to three independent option work segments, which if exercised in full by BARDA would provide for an additional $30 million of funding from BARDA and would support the development of ridinilazole through to potential submission of applications for marketing approval. During the year ended January 31, 2018 the Group recognized funding income from BARDA of £1.8 million for the CDI program (year ended January 31, 2017: nil), income is recognized in respect of BARDA as the underlying research and development expenditure is incurred.

During the year ended January 31, 2018, the Group also recognized £0.9 million of other operating income related to the derecognition of the Wellcome Trust financial liability (year ended January 31, 2017: nil). See Note 18 ‘Financial liabilities on funding arrangements’ for further details.

8. Auditors’ remuneration

Services provided by the Group’s auditors

During the year the Group obtained the following services from the Group’s auditors at the cost detailed below:

	Year ended January 31, 2018 £000	Year ended January 31, 2017 £000	Year ended January 31, 2016 £000
Fees payable to the auditors and its associates for the audit of the Company and Consolidated Financial Statements	**132**	110	44
Fees payable to the auditors and its associates for other services:			
- Audit of the Company’s subsidiaries[2]	**209**	120	71
- Audit-related assurance services	**—**	3	6
- Other assurance services[1]	**118**	163	158
- Tax advisory services	**2**	15	9
- Tax compliance services	**21**	47	11
Total fees payable	**482**	458	299

(1) For the year ended January 31, 2018, other assurance services includes assurance reporting on information included in information used for the Company's underwritten public offering completed on 18 September 2017. These amounts were recognized directly in share premium. For the year ended January 31, 2017, other assurance services includes assurance reporting on information included in the Company’s registration statement on Form F-3 that was originally filed with the U.S. Securities and Exchange Commission on May 12, 2016.

(2) For the year ended January 31, 2018, fees payable for the Consolidated Financial Statements and fees payable for the Company's subsidiaries includes audit services relating to the initial audit and business combination accounting for Discuva Limited. These amounts will be non recurring fees.

9. Finance income and costs

	Note	**Year ended January 31, 2018**	Year ended January 31, 2017	Year ended January 31, 2016
		£000	£000	£000
Finance income				
Derecognition of financial liabilities	18	**3,085**	—	—
Interest income on deposits		**11**	8	30
Finance income		**3,096**	8	30
Finance costs				
Unwinding of discount factor	18	**(754)**	(862)	(268)
Re-measurement of financial liabilities on funding arrangements	18	**(410)**	—	(2,611)
Finance costs		**(1,164)**	(862)	(2,879)
Net finance income / (costs)		**1,932**	(854)	(2,849)

10. Income tax

	Year ended January 31, 2018	Year ended January 31, 2017	Year ended January 31, 2016
	£000	£000	£000
Analysis of credit in the period			
Current tax:			
Current tax income	**3,767**	4,245	2,971
Adjustments in respect of prior years	**(5)**	(9)	87
Total current tax	**3,762**	4,236	3,058
Total deferred tax	**—**	100	—
Total tax	**3,762**	4,336	3,058

The difference between the total tax shown above and the amount calculated by applying the standard rate of UK corporation tax to the loss before tax is as follows:

	Year ended January 31, 2018	Year ended January 31, 2017	Year ended January 31, 2016
	£000	£000	£000
Loss before tax	**(10,893)**	(25,707)	(23,195)
Loss multiplied by the standard rate of corporation tax in the United Kingdom (Current tax) 19.17% (2017: 20%)	**(2,088)**	(5,141)	(4,678)
Change in unrecognized tax losses	**751**	2,169	2,691
Non-deductible expenses	**402**	331	184
Tax relief for qualifying research and development expenditure	**(3,043)**	(1,699)	(1,170)
Prior year adjustments	**5**	9	(87)
Share options exercised	**(40)**	(84)	(45)
Overseas profits taxed at different rates	**251**	179	47
Change in rate of deferred tax	**—**	(100)	—
Total tax	**(3,762)**	(4,336)	(3,058)

10. Income tax (continued)

There are no current tax liabilities as at January 31, 2018 (2017: Nil; 2016: Nil).

Tax credits relate to UK research and development tax credits claimed under the Finance Act 2015.

The Finance (No 2) Act 2015, which provides for reductions in the main rate of corporation tax from 20% to 19% effective from April 1, 2017, and to 18% effective from April 1, 2020, was substantively enacted on October 26, 2015. Subsequently, the Finance Act 2016, which provides for a further reduction in the main rate of corporation tax to 17% effective from April 1, 2020, was substantively enacted on September 6, 2016. These rate reductions have been reflected in the calculation of deferred tax at the year end date.

The closing deferred tax liability at January 31, 2018 has been calculated at 17% reflecting the tax rate at which the deferred tax liability is expected to be reversed in future periods. Unrecognized deferred tax has been calculated at 17% reflecting the latest enacted rate. In respect of unrecognized deferred tax on losses, the new loss restriction rules effective from April 1, 2017 limit the amount of brought forward losses available to use against future taxable profits on a year by year basis to the extent that taxable profits exceed £5m in year. However, the losses will not lapse and therefore the full amount will be relieved over time provided there are sufficient profits against which the losses can be utilized.

Please see Note 21 ‘Deferred tax liability’ for information on the unrecognized tax losses carried forward.

11. Loss per share

The loss per share has been calculated using the loss for the year of £7,131,000 (year ended January 31, 2017: loss of £21,371,000; year ended January 31, 2016: loss of £20,137,000) and dividing this by the weighted average number of Ordinary Shares in issue during the year to January 31, 2018: 65,434,294 (year ended January 31, 2017: 61,548,557; year ended January 31, 2016: 59,102,292).

Since the Group has reported a net loss, diluted loss per share is equal to basic loss per share.

Potentially dilutive shares capable of vesting under the share options currently in issue totaled 8,577,236 as at January 31, 2018 (January 31, 2017: 7,383,401; year ended January 31, 2016: 7,006,306).

12. Goodwill

	Discuva Limited £000	MuOx Limited £000	Total £000
Cost			
At February 1, 2017	—	664	664
Additions	1,814	—	1,814
At January 31, 2018	1,814	664	2,478
Accumulated impairment			
At February 1, 2017	—	—	—
At January 31, 2018	—	—	—
Net book amount			
At February 1, 2017	—	664	664
At January 31, 2018	1,814	664	2,478

12. Goodwill (continued)

	Discuva Limited £000	MuOx Limited £000	Total £000
Cost			
At February 1, 2016	—	664	664
At January 31, 2017	—	664	664
Accumulated impairment			
At February 1, 2016	—	—	—
At January 31, 2017	—	—	—
Net book amount			
At February 1, 2016	—	664	664
At January 31, 2017	—	664	664

Goodwill represents the difference between the fair value of the identifiable assets acquired and liabilities assumed and the amount paid in consideration**.** In accordance with IAS 36 ‘Goodwill’ has been reviewed for impairment and no provision is considered necessary. The impairment review is included as part of the intangible assets impairment review in Note 13 ‘Intangible assets’. Goodwill relating to Muox Limited forms part of the same cash-generating unit as the utrophin program acquired. Goodwill relating to Discuva Limited forms part of the same cash-generating unit as the bacterial genetics-based platform acquired.

On December 23, 2017, the Group acquired 100% of the share capital of Discuva Limited a privately held UK-based company, resulting in the recognition of £1.8 million of goodwill. See Note 27 'Business combinations' for details. Goodwill recognized in respect of Discuva Limited is attributable to the synergies expected with the Group's ongoing business as a result of the acquisition and the existing Discuva Limited workforce (which cannot be separately valued under IFRS accounting standards).

Goodwill recognized in respect of MuOx Limited is attributable to synergies expected from the Group’s collaboration with the University of Oxford and other founders of MuOx Limited.

13. Intangible assets

	Iminosugar related programs acquired £000	Utrophin program acquired £000	Bacterial genetics-based platform acquired £000	Option over non-financial assets £000	Other patents and licenses £000	Total £000
Cost						
At February 1, 2017	1,380	3,321	—	—	204	4,905
Acquisition of subsidiary (Note 27)	—	—	10,670	668	—	11,338
Additions	—	—	—	—	119	119
Disposals	(1,380)	—	—	—	(58)	(1,438)
At January 31, 2018	—	3,321	10,670	668	265	14,924
Accumulated amortization						
At February 1, 2017	(1,380)	—	—	—	(55)	(1,435)
Charge for the year	—	—	(79)	(4)	(23)	(106)
Disposals	1,380	—	—	—	22	1,402
At January 31, 2018	—	—	(79)	(4)	(56)	(139)
Net book amount						
At February 1, 2017	—	3,321	—	—	149	3,470
At January 31, 2018	—	3,321	10,591	664	209	14,785

	Iminosugar related programs acquired £000	Utrophin program acquired £000	Bacterial genetics-based platform acquired £000	Option over non-financial assets £000	Other patents and licenses £000	Total £000
Cost						
At February 1, 2016	1,380	3,321	—	—	197	4,898
Additions	—	—	—	—	7	7
At January 31, 2017	1,380	3,321	—	—	204	4,905
Accumulated amortization						
At February 1, 2016	(1,380)	—	—	—	(45)	(1,425)
Charge for the year	—	—	—	—	(10)	(10)
At January 31, 2017	(1,380)	—	—	—	(55)	(1,435)
Net book amount						
At February 1, 2016	—	3,321	—	—	152	3,473
At January 31, 2017	—	3,321	—	—	149	3,470

Amortization of intangible assets is included in the line ‘Research and development’ shown on the face of the Consolidated Statement of Comprehensive Income.

On December 23, 2017, the Group recognized £10.6 million of identified intangible assets related to the bacterial genetics-based platform and £1.8 million of goodwill upon acquisition of Discuva Limited. See Note 27 'Business combinations' for further details.

In accordance with IAS 38, intangible assets not subject to amortization and the associated goodwill have been reviewed for impairment.

The key assumptions used in the valuation model to determine the value in use are as follows:

- expected research and development costs based on management’s past experience and knowledge;
- probabilities of achieving development milestones based on industry standards;
- reported disease prevalence;
- expected discovery pipeline;
- expected market share based on management’s estimates;
- drug reimbursement, costs of goods and marketing estimates; and
- expected patent life.

13. Intangible assets (continued)

The valuation models cover periods significantly longer than five years which is based on expected patent life, once filed, due to the length of the development cycle for assets of this nature.

A discount factor of 18% has been used over the forecast period for the valuation model used to determine the value in use of the utrophin program acquired and the associated goodwill amounts recognized.

Based on sensitivity analysis, no reasonably possible change in assumptions would cause the carrying value of this asset to exceed its recoverable amount.

14. Property, plant and equipment

Cost	Leasehold improvements £000	Laboratory equipment £000	Office and IT equipment £000	Total £000
At February 1, 2017	9	19	284	312
Acquisition of subsidiary (Note 27)	—	280	49	329
Additions	340	—	173	513
Disposals	(9)		(14)	(23)
Revaluation	—	—	(6)	(6)
At January 31, 2018	**340**	**299**	**486**	**1,125**
Accumulated depreciation				
At February 1, 2017	(9)	(17)	(170)	(196)
Charge for the year	(31)	(19)	(90)	(140)
Disposals	9	—	10	19
Revaluation	—	—	1	1
At January 31, 2018	**(31)**	**(36)**	**(249)**	**(316)**
Net book value				
At February 1, 2017	—	2	114	116
At January 31, 2018	**309**	**263**	**237**	**809**

Cost	Leasehold improvements £000	Laboratory equipment £000	Office and IT equipment £000	Total £000
At February 1, 2016	9	137	228	374
Additions	—	—	81	81
Disposals	—	(118)	(25)	(143)
At January 31, 2017	**9**	**19**	**284**	**312**
Accumulated depreciation				
At February 1, 2016	(7)	(135)	(149)	(291)
Charge for the year	(2)	—	(46)	(48)
Disposals	—	118	25	143
At January 31, 2017	**(9)**	**(17)**	**(170)**	**(196)**
Net book value				
At February 1, 2016	2	2	79	83
At January 31, 2017	**—**	**2**	**114**	**116**

15. Prepayments and other receivables

	January 31, 2018 £000	January 31, 2017 £000
Other receivables	**3,600**	342
Prepayments	**6,498**	685
Accrued income	**1,036**	—
	11,134	1,027

16. Trade and other payables

	January 31, 2018	January 31, 2017
	£000	£000
Trade payables	**4,414**	906
Other taxes and social security	**164**	94
Accruals	**4,078**	2,884
Other creditors	**276**	100
	8,932	3,984

17. Deferred revenue

	January 31, 2018	January 31, 2017
	£000	£000
Due within one year	**10,012**	6,912
Due more than one year	**18,033**	23,615

Sarepta Therapeutics Inc.

On October 4, 2016, Summit announced its entry into an exclusive license and collaboration agreement with Sarepta Therapeutics Inc. ('Sarepta'), pursuant to which Summit granted Sarepta the exclusive right to commercialize products in the Group's utrophin modulator pipeline in the European Union, Switzerland, Norway, Iceland, Turkey and the Commonwealth of Independent States. Such products include the Group's lead product candidate, ezutromid, for the treatment of Duchenne muscular dystrophy and its pipeline of second generation and future generation small molecule utrophin modulators. The Group also granted Sarepta an option to expand the licensed territory to include specified countries in Central and South America. The Group retains commercialization rights in the rest of the world.

Under the license and collaboration agreement with Sarepta, Summit received an upfront payment of $40.0 million (£32.8 million) from Sarepta. The terms of the contract have been assessed, and the Group believes the development services to be indistinguishable from the license and as a result the upfront payment was initially reported as deferred revenue in the Consolidated Statement of Financial Position and is being recognized as revenue over the development period. In May 2017, the Group announced the first dosing of the last patient in PhaseOut DMD, its ongoing Phase 2 clinical trial of ezutromid, which triggered a $22 million (£17.2 million) development milestone payment to Summit. The Group believes this development milestone has been achieved, hence the payment has met the recognition criteria of International Accounting Standard 18 'Revenue' and has been recognized as revenue in full during the year ended January 31, 2018. In addition, the Group will be eligible to receive up to an additional $20 million from Sarepta in specified development milestones for ezutromid and up to $150 million from Sarepta in specified regulatory milestones related to ezutromid in the licensed territory. The Group are also eligible to receive up to $65 million in specified development milestones and up to $225 million in specified regulatory milestones from Sarepta for our future generation small molecule utrophin modulators in the licensed territory. In addition, the Group are also eligible to receive up to $330 million from Sarepta in specified sales milestones on a product-by-product basis, as well as tiered, escalating royalties ranging from a low to high teens percentage of net sales on a product-by-product basis in the licensed territory.

Under the license and collaboration agreement with Sarepta, the Group have agreed to collaborate with Sarepta on the research and development of the licensed products pursuant to a joint development plan through a joint steering committee comprised of an equal number of representatives from each party. The Group have been solely responsible for all research and development costs for the licensed products until December 31, 2017. From January 1, 2018, the Group is responsible for 55.0% of the budgeted research and development costs related to the licensed products in the licensed territory, and Sarepta is responsible for 45.0% of such costs. Any costs in excess of 110.0% of the budgeted amount are borne by the party that incurred such costs. The Group is also obligated to spend a specified minimum amount on the research and development of certain licensed products prior to the end of 2019.

17. Deferred revenue (continued)

Eurofarma Laboratórios S.A.

On December 21, 2017, Summit announced it had entered into an exclusive license and commercialization agreement with Eurofarma Laboratórios S.A. ('Eurofarma'), pursuant to which the Group granted Eurofarma the exclusive right to commercialize ridinilazole in specified countries in South America, Central America and the Caribbean. The Group has retained commercialization rights in the rest of the world.

Under the terms of the license agreement with Eurofarma, the Group received an upfront payment of $2.5 million (£1.9 million) from Eurofarma. The terms of the contract have been assessed, and the Group believes the development services to be indistinguishable from the license and as a result the upfront payment was initially reported as deferred revenue in the Consolidated Statement of Financial Position and is being recognized as revenue over the development period. In addition, the Group will be entitled to receive an additional $3.75 million in development milestones upon the achievement of staged patient enrollment targets in the licensed territory in one of our two planned Phase 3 clinical trials of ridinilazole. The Group is eligible to receive up to $21.5 million in development, commercial and sales milestones when cumulative net sales equal or exceed $100.0 million in the Eurofarma licensed territory. Each subsequent achievement of an additional $100.0 million in cumulative net sales will result in the Group receiving additional milestone payments, which, when combined with anticipated product supply transfer payments from Eurofarma paid to the Group in connection with a commercial supply agreement to be entered into between the two parties, will provide payments estimated to range from a mid- to high-teens percentage of cumulative net sales in the Eurofarma licensed territory. The Group estimate such product supply transfer payments from Eurofarma will range from a high single-digit to low double-digit percentage of cumulative net sales in the licensed territory.

18. Financial liabilities on funding arrangements

The Group has entered into charitable funding arrangements with the Wellcome Trust and the US not for profit organizations, the Muscular Dystrophy Association (‘MDA’) and Duchenne Partners Fund (‘DPF’). In exchange for the funding provided, these arrangements require the Group to pay royalties on potential future revenues generated from the CDI and DMD programs respectively. Under IFRS, when such arrangements also give the counterparties rights over unexploited intellectual property, this results in a financial liability, recognized in the Statement of Financial Position. The estimated financial liability is initially recognized at fair value using a discounted cash flow model with the difference between the fair value of the liability and the cash received considered to represent a charitable grant.

The financial liabilities are subsequently measured at amortized cost using discounted cash flow models which calculate the risk adjusted net present values of estimated potential future cash flows for the respective projects related to the Wellcome Trust and MDA and DPF agreements. The financial liabilities are re-measured when there is a specific significant event that provides evidence of a significant change in the probability of successful development such as the completion of a phase of research or public reporting of significant interim data and changes in use or market for a product. The models will be updated for changes in the clinical probability of success and other associated assumptions with the discount factor to remain unchanged within the model. Discount factors have been calculated using appropriate measures and rates which could have been obtained in the period that the funding agreements were entered into and are in the range of 16% to 18%.

In October 2017, the Company and the Wellcome Trust entered into an equity and revenue sharing agreement (‘RS Agreement’). This was a follow-on to Summit’s October 2012 Translational Award funding agreement with the Wellcome Trust ('TA Agreement'), which provided funding for the now completed Phase 1 and Phase 2 clinical trials for ridinilazole. The commercial terms in the RS Agreement replaced those detailed in the TA Agreement. Under the RS Agreement, the Wellcome Trust also agreed to terminate all of its rights under the TA Agreement pertaining to the exploitation of intellectual property related to the CDI program, meaning the arrangement no longer meets the definition of a financial liability under IFRS. Therefore, the portion of the financial liability on the Group’s Statement of Financial Position related to the Wellcome Trust funding has been derecognized in full as a credit to the Statement of Comprehensive Income, with £0.9 million classified as Other income and £3.1 million classified as Finance income. The portion of the derecognized financial liability presented as Other income represents the component of the funding received from the Wellcome Trust not previously credited to the Statement of Comprehensive Income upon initial recognition of the financial liability. The portion of the derecognized financial liability presented as Finance income relates to previous re-measurements and discounts associated with the financial liability which were recognized as finance costs.

The value of the estimated financial liabilities for funding arrangements as of January 31, 2018 amounted to £3.1 million (January 31, 2017: £5.9 million) relating to the charitable funding arrangements with MDA and DPF. Since initial recognition, the remaining estimated financial liabilities were re-measured following significant successful events in the DMD and CDI clinical programs. The financial liabilities were re-measured in the year ended January 31, 2018 following positive interim 24-week data in the Phase 2 clinical trial of ezutormid for DMD which increased the probability of success.

18. Financial liabilities on funding arrangements (continued)

	January 31, 2018	January 31, 2017
	£000	£000
At February 1	**5,919**	5,034
Unwinding of discount factor	**754**	862
Derecognition of financial liabilities – Finance income	**(3,085)**	—
Re-measurement of financial liabilities on funding arrangements	**410**	—
Net finance income / (costs) on funding arrangements accounting for as financial liabilities	**(1,921)**	862
Derecognition of financial liabilities – Other operating income	**(908)**	—
Cash received from funding arrangements accounted for as financial liabilities	—	23
At January 31	**3,090**	5,919

Changing one or more assumptions to reasonable possible alternative assumptions would not materially change the fair value. The table below describes the value of the liability as at January 31, 2018 of £3.1 million compared to what the total value would be following the presented variations to the underlying assumptions in the model:

	January 31, 2018
	£000
Estimated financial liabilities on funding arrangements	3,090
1% lower discount rate	3,354
1% higher discount rate	2,850
10% lower revenue assumptions	2,818
10% higher revenue assumptions	3,362
10% lower probability of success	1,005
10% higher probability of success	5,123

Summary of milestone payments and royalty arrangements contained in the funding arrangements

US Not for Profit Organizations

Muscular Dystrophy Association

The Group has agreed to pay the Muscular Dystrophy Association (‘MDA’) a specified lump sum amount, less the previously paid MDA cash infusion milestone payment, following the regulatory approval of any project product for use in the United States or European Union in the treatment of DMD or Becker muscular dystrophy (‘BMD’) and an additional specified sum upon achievement of a commercial milestone. The Group would be obligated to pay MDA a low single-digit percentage royalty of worldwide net sales by the Group, its affiliates or licensees of any project product.

Duchenne Partners Fund Inc.

The Group has agreed to pay Duchenne Partners Fund Inc., (‘DPF’) a specified lump sum amount, less the previously paid DPF cash infusion milestone payment, following the regulatory approval of any project product for use in the United States or European Union in the treatment of DMD or BMD and an additional specified sum upon achievement of a commercial milestone. The Group would be obligated to pay DPF a low single-digit percentage royalty of worldwide net sales by the Group, its affiliates or licensees of any project product.

The total amount payable with respect to regulatory milestones under the two agreements with the US not for profit organizations would be $2.5 million if the Group meets all regulatory milestones.

19. Financial instruments

	Note	January 31, 2018 £000	January 31, 2017 £000
Loans and receivables			
Other receivables[1]	**15**	**3,600**	342
Cash and cash equivalents		**20,102**	28,062
		23,702	28,404
Financial liabilities measured at amortized cost			
Trade and other payables	**16**	**8,932**	3,984
Financial liabilities on funding arrangements	**18**	**3,090**	5,919
		12,022	9,903

(1) Prepayments and accrued income have been excluded as they are not considered to be a financial instrument.

The Group's activities expose it to a variety of financial risks: foreign currency risk; interest rate risk; credit risk; and liquidity risk.

The Group's principal financial instrument comprises cash and cash equivalents, and this is used to finance the Group's operations. Other financial instruments include other receivables and trade and other payables that arise directly from its operations. The category of other receivables all mature within one year.

The Group has compared fair value to book value for each class of financial asset and liability: no difference was identified other than in respect of financial liabilities on funding arrangements. The Group has a policy, which has been consistently followed, of not trading in financial instruments.

The Group considers the financial liabilities on funding arrangements to be a level 3 financial instrument, and the fair value as at January 31, 2018 was calculated to be £4.7 million. The key inputs to the model are described more fully within Note 2 'Critical accounting judgements and key sources of estimation uncertainty'.

Foreign currency risk

Foreign currency risk refers to the risk that the value of a financial commitment or recognized asset or liability will fluctuate due to changes in foreign currency rates. The Group's net income and financial position, as expressed in Pounds Sterling, are exposed to movements in foreign exchange rates against the US Dollar and the Euro. The main trading currencies of the Group are Pounds Sterling, the US Dollar, and the Euro. The Group is exposed to foreign currency risk as a result of trading transactions, including the receipt of potential payments related to the Group's agreements with Sarepta, Eurofarma and BARDA, capital raises in the US and the translation of foreign bank accounts.

The exposure to foreign exchange is monitored by the Group's finance function. Exposures are generally managed through natural hedging *via* the currency denomination of cash balances and any realized impact currently is not material to the Group.

	January 31, 2018 £000	January 31, 2017 £000
Cash at bank and in hand		
Pounds Sterling	**5,535**	8,969
US Dollar	**14,567**	19,093
	20,102	28,062

Interest rate risk

One of the risks arising from the Group's financial instruments is interest rate risk. The Group holds no derivative instruments to manage interest rate risk; instead the Group placed deposits surplus to short-term working capital requirements with a variety of reputable UK- and US-based banks and building societies. There were no amounts on short term deposits at the year end. These balances are placed at fixed rates of deposit with maturities between one month and three months.

19. Financial instruments (continued)

The Group's cash and short-term deposits were as follows:

	January 31, 2018 £000	January 31, 2017 £000
On current account	**20,102**	28,062
	20,102	28,062

The interest rates for dated deposits were dependent on the rates offered by the Group's borrowers. The interest rate for short-term deposits is variable dependent on the rates offered by the Group's banks. During the year to January 31, 2018, the banking facilities returned an average rate after fees of 0.02% (2017: 0.04%).

The Group's exposure to interest rate risk is illustrated with regard to the opening and closing cash balances and the difference that an increase or decrease of 1% in interest rates would have made based on the average cash balance of £24,082,000 (2017: £22,183,000) in the year:

Year ended January 31, 2018	**(1)%**	**Actual**	**1%**
Interest rate	**—**	**0.02**	**1.02**
Interest received (£000)	**—**	**5**	**246**
Year ended January 31, 2017	(1)%	Actual	1%
Interest rate	—	0.04	1.04
Interest received (£000)	—	8	230

Credit risk

The credit risk with respect to customers is limited and the Group had no trade receivables outstanding at January 31, 2018.

Financial instruments that potentially expose the Group to concentrations of credit risk consist primarily of short-term cash investments and trade accounts receivable. Excess cash is invested in short-term money market instruments, including bank term deposits, money market and liquidity funds, and other debt securities provided by a variety of financial institutions with strong credit ratings; these investments typically bore minimal credit risk in the year.

Cash balances maintained during the year have been principally held with reputable UK- and-US based banks and building societies. The Group does not believe that this constituted a major credit risk.

As of January 31, 2018 and January 31, 2017, the majority of cash and cash equivalents were placed with HSBC Bank plc.

Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and the availability of funding through an adequate amount of committed credit facilities.

The Group ordinarily finances its activities through cash generated from operating activities, and private and public offerings of equity securities. The Group anticipates that its operating cash flow together with available cash and cash equivalents will be sufficient to meet its anticipated needs. See Note 1 'Going concern'.

All of the financial liability categories at each balance sheet date, excluding the financial liabilities on funding arrangements, have maturity dates of less than twelve months from the year end date. Provisions are amounts contingent upon events taking place and the recognition of deferred taxation is dependent upon future profits arising.

Capital management

The primary aim of the Group's capital management, defined as its share capital and share premium, is to safeguard the Group's ability to continue as a going concern, to support its programs and maximize shareholder value.

The Group monitors its capital structure and makes adjustments, as and when it is deemed necessary and appropriate to do so, using such methods as the issuing of new ordinary shares. The capital structure of the Group has come entirely from equity issues.

20. Provisions for other liabilities and charges and contingent liabilities

	Assumed contingent liabilities £000s	Dilapidations £000s	Royalties £000s	Total £000s
At February 1, 2017	—	85	—	85
Additions	1,466	150	25	1,641
Used during the year	—	(85)	—	(85)
At January 31, 2018	**1,466**	**150**	**25**	**1,641**

	Assumed contingent liabilities £000s	Dilapidations £000s	Royalties £000s	Total £000s
At February 1, 2016	—	73	—	73
Additions	—	12	—	12
Used during the year	—		—	—
At January 31, 2017	—	**85**	—	**85**

Dilapidations

Management has made a provision in respect of the dilapidation costs associated with the reinstatement obligations on their current lease based on best estimates. It is management's intention to utilize the provision at the end of the lease term. During the year ended January 31, 2018, the Group utilized the provisions classified as falling due within one year to settle its obligations in respect of the Group's expired lease in Oxford, UK.

Royalties

The provision in respect of royalties relates to the amounts due to the Wellcome Trust being a share of the cumulative net revenue that the Group or its affiliates receive from exploiting the exploitation intellectual property or award products. The provision has been discounted to take account of the effect of the time value of money, applying an discount rate of 13%. Further information on the contingencies included in the Wellcome Trust arrangement are detailed below.

Assumed contingent liability

On December 23, 2017, the Group acquired Discuva Limited for total consideration of £11.1 million comprising £6.1 million of cash (being £5.0 million plus the value of net cash acquired by the Group as part of the acquisition) and £5.0 million of new ordinary shares of Summit of one penny nominal value issued to Discuva shareholders at a price of 170.4 pence per share. In addition, the Group assumed certain contingent liabilities as, certain employees, former employees and former directors of Discuva are eligible for payments from Discuva based on specified development and clinical milestones related to proprietary product candidates developed under the bacterial genetics-based platform. The timing of these potential payments is uncertain.

On the date of acquisition the fair value of the assumed contingent liability was estimated using the expected value of the payments. The assumed contingent liabilities are subsequently measured at amortized cost using discounted cash flow models which calculate the risk adjusted net present values of estimated potential future cash flows of the payments. The assumed contingent liabilities are re-measured when there is a specific significant event that provides evidence of a significant change in the probability of successful development and clinical milestones being achieved. The models will be updated for changes in the probability of successful development and clinical milestones being achieved and other associated assumptions with the discount factor to remain unchanged within the model. A discount factor of 13% has been used to discount the contingent liabilities back to net present value. This discount factor has been calculated using appropriate measures and rates which could have been obtained in the period that the contingent liabilities were assumed.

The estimated initial fair value of the assumed contingent liability as at January 31, 2018 is £1.5 million. The contingent liability has not been re-measured during the period.

20. Provisions for other liabilities and charges and contingent liabilities (continued)

The table below describes the value of the assumed contingent liabilities as at January 31, 2018 of £1.5 million compared to what the total value would be following the presented variations to the underlying assumptions in the model:

	January 31, 2018 £000
Estimated assumed contingent liabilities	1,466
1% lower discount rate	1,579
1% higher discount rate	1,368
10% lower probability of success	1,208
10% higher probability of success	1,705

In addition to those items provided for above, the Group also has the following contingencies:

MuOx Limited

Under the research sponsorship agreement that the Group and Oxford University Innovation Limited, formerly known as Isis Innovation Limited, ('OUI') entered into in November 2013, amended and restated in July 2014 and amended in November 2015, the Group agreed to fund a drug research and discovery program in the University of Oxford laboratories to identify and research utrophin modulators to treat DMD. The Group will fund up to £4.6 million for this purpose over the initial six-year research period ending in November 2019. If the Group exercises its right to extend the research period by an additional year, the Group would be obliged to pay OUI an additional £0.8 million, for a total of £5.4 million.

Under the option agreement that the Group and OUI entered into in November 2013, and as amended in November 2015, OUI granted to the Group an exclusive option to license the intellectual property ('IP') arising from the research carried out under the sponsored research agreement within specified periods. If the Group exercises its option to obtain a license under arising IP, the Group would be obliged to pay OUI up to a specified sum in option exercise fees.

For any IP arising from the research carried out under the sponsored research agreement and for which the Group has exercised the option and that comprises new chemical entities or compounds, the Group would obtain an exclusive, sub licensable license. The Group is obligated to pay milestone payments of up to £75,000 upon the achievement of specified development milestones, whether such milestones occur prior to or after the Group's exercise of the option to obtain an exclusive sub- licensable license. Following exercise of such an option, the Group would also be obligated to pay milestone payments upon the achievement of specified regulatory milestones with respect to each optioned compound. The specified regulatory milestone payment is due each time the specified regulatory milestone is achieved with respect to an optioned compound and, if each optioned compound achieved each regulatory milestone, the Group would be obligated to pay OUI a total of £3.7 million in regulatory milestone payments for each optioned compound.

The Group would also be obligated to pay OUI a low single-digit royalty of net sales by the Group, its affiliates or sub-licensees of any product containing an optioned compound.

The School of Pharmacy, University of London

The Group has agreed to pay The School of Pharmacy, University of London, a low single-digit share of all revenue, pre and post commercialization, received by the Group in respect of ridinilazole up to a maximum of £1.0 million in consideration of their role in the development of the initial compound series from which ridinilazole was later identified. Following the license and commercialization agreement entered into with Eurofarma Laboratórios S.A., an initial payment became due to The School of Pharmacy and has been provided for at the year end date.

Wellcome Trust

Under the renewed terms of the funding arrangement the Wellcome Trust are entitled to a share of the cumulative net revenue that the Group or its affiliates receive from exploiting the exploitation IP or award products. If Summit undertakes the commercialization of ridinilazole, the Wellcome Trust would be eligible to receive a low-single digit percentage share of net revenues. If a third-party undertakes the commercialization of ridinilazole, the Wellcome Trust would be eligible to receive a mid-single digit percentage share of net revenues received by Summit from sales by the third-party and a milestone payment of a low-single digit percentage of any cumulative pre-commercial payments received by Summit from third-party licensees. In both instances outlined above the Group would also be obligated to pay the Wellcome Trust a milestone of a specified amount if cumulative net revenue exceeds a specified amount. Following the license and commercialization agreement entered into with Eurofarma, an initial payment became due to the Wellcome Trust upon commercialization of ridinilazole. The payment has been provided for by the Group as at the year end date and has been discounted back to net present value relative to the expected timing of commercialization of ridinilazole.

21. Deferred tax liability

The Group's deferred tax liability includes amounts recognized upon acquisition of MuOx Limited, which took place in the year ended January 31, 2014, and amounts recognized upon acquisition of Discuva Limited, which took place in the year ended January 31, 2018.

	January 31, 2018 £000	January 31, 2017 £000
Amounts falling due after more than one year		
At February 1	**565**	664
Acquisition of subsidiary (Note 27)	**1,814**	—
Credited to the income statement	—	(99)
At January 31	**2,379**	565

There is an unrecognized deferred tax asset in relation to the trading losses carried forward of £11,944,000 (2017: £10,882,000), £26,000 in relation to provisions (2017: £14,000) and £588,000 (2017: £230,000) in relation to future exercisable shares. There is a deferred tax liability of £71,000 (2017: £3,000) in respect of accelerated capital allowances, which has been offset against the deferred tax asset in relation to trading losses carried forward.

The unrecognized deferred tax asset would be recovered against future company taxable profits. In the opinion of the Directors, there is insufficient evidence that the asset will be recovered, and as such the deferred tax asset has not been recognized in the financial statements.

22. Share capital

	January 31, 2018 £000	January 31, 2017 £000
Allotted, called up and fully paid		
73,563,624 (2017: 61,841,566) Ordinary shares of 1p each	**736**	618
	736	618

Changes to the number of Ordinary Shares in issue have been as follows:

	Number of Shares	**Total Nominal Value £000**	**Total Share Premium £000**	**Total Consideration £000**
At February 1, 2016	61,290,740	613	46,035	46,648
New share capital issued from exercise of warrants	177,045	2	105	107
Share options exercised	373,781	3	280	283
At January 31, 2017	**61,841,566**	**618**	**46,420**	**47,038**
At February 1, 2017	61,841,566	618	46,420	47,038
New share capital issued (net of transaction costs)	8,389,250	84	13,419	13,503
Issue of Ordinary Shares as consideration for a business combination [(1)]	2,934,272	30	—	30
New share capital issued from exercise of warrants	50,000	1	9	10
Share options exercised	348,536	3	389	392
At January 31, 2018	**73,563,624**	**736**	**60,237**	**60,973**

(1) The difference between the nominal value of the share capital acquired in Discuva Limited and fair value of shares issued in the business combination using the acquisition method of accounting was recognized as part of the Group's merger reserve arising as a result of certain requirements in the United Kingdom.

22. Share capital (continued)

On February 22, 2017, warrants over 50,000 Ordinary Shares were exercised at a price of 20 pence per share. The issue of shares raised net proceeds of £10,000.

On September 18, 2017, the Group completed an underwritten public offering on the Nasdaq Global Market issuing 1,459,000 American Depositary Shares ('ADS') at a price of $12.00 per ADS. The underwriters also exercised in full their over-allotment option to purchase an additional 218,850 ADSs on the same terms which was also completed on September 18, 2017. Each ADS represents five Ordinary Shares of one penny nominal value each in the capital of the Company, meaning 8,389,250 new Ordinary Shares were issued. Total gross proceeds of $20.1 million (£14.9 million) were raised and directly attributable transaction costs of £1.4 million were incurred and accounted as a deduction from equity.

On December 23, 2017, the Group acquired 100% of the share capital of Discuva Limited, a privately held UK-based company. As part of the consideration the Group issued £5.0 million in new Ordinary Shares of Summit of one penny nominal value to Discuva shareholders at a price of 170.4 pence per share, meaning 2,934,272 Ordinary Shares were issued. See note 27 'Business combinations' for details.

During the year to January 31, 2018, the following exercises of share options took place:

Date	Number of options exercised
April 10, 2017	16,667
June 27, 2017	19,425
September 28, 2017	32,500
September 29, 2017	94,425
October 2, 2017	97,199
October 4, 2017	88,320
	348,536

The total net proceeds from exercised share options during the year was £0.39 million.

All new Ordinary Shares rank *pari passu* with existing Ordinary Shares.

Following the public offering and exercise of the over-allotment option, the issuance of shares as consideration for a business combination and the exercise of the above share options and warrants, the number of Ordinary Shares in issue was 73,563,624.

Dividends

No dividends were paid or declared in the year ended January 31, 2018 (year ended January 31, 2017: £nil).

23. Share option scheme and Restricted Stock Units

At January 31, 2018, the outstanding share options, which include the share options granted to Directors, are shown below:

Date of grant	Exercise price (£)	Number of shares	Date from which exercisable	Expiry date
Approved EMI scheme				
April 7, 2011	0.65	5,873	April 8, 2014	April 7, 2021
May 10, 2012	0.60	150,046	May 10, 2014	May 10, 2022
December 24, 2012	0.85	21,500	December 24, 2015	December 24, 2022
January 31, 2013	0.20	72,973	July 31, 2013	January 31, 2023
July 15, 2014	1.26	249,621	July 15, 2016	July 15, 2024
January 21, 2015	1.23	25,000	January 21, 2017	January 21, 2025
June 23, 2016	1.05	560,343	June 23, 2017	June 23, 2026
		1,085,356		

23. Share option scheme and Restricted Stock Units (continued)

Date of grant	Exercise price (£)	Number of shares	Date from which exercisable	Expiry date
Unapproved scheme				
April 7, 2011	0.65	13,981	April 8, 2014	April 8, 2021
December 18, 2013	0.20	76,364	June 19, 2013	June 19, 2023
June 23, 2014	1.48	400,000	June 23, 2015	June 23, 2024
July 15, 2014	1.26	847,500	July 15, 2016	July 15, 2024
July 15, 2014	0.80	100,000	May 30, 2015	May 30, 2023
January 21, 2015	1.23	75,000	January 21, 2017	January 21, 2025
June 16, 2015	1.43	2,252,333	June 16, 2017	June 16, 2025
October 15, 2015	1.31	50,000	October 15, 2017	October 15, 2025
June 23, 2016	0.01	110,576	July 21, 2016	June 23, 2026
June 23, 2016	1.05	250,000	June 23, 2019	June 23, 2026
June 23, 2016	1.05	363,092	June 23, 2017	June 23, 2026
April 11, 2017	1.85	150,436	April 11, 2018	April 11, 2027
April 11, 2017	1.85	324,324	April 11, 2020	April 11, 2027
April 11, 2017	1.85	762,764	June 23, 2019	April 11, 2027
June 27, 2017	1.80	34,711	June 27, 2017	June 27, 2027
July 18, 2017	1.83	533,629	June 18, 2018	June 18, 2027
July 18, 2017	1.83	367,924	July 18, 2020	July 18, 2027
October 24, 2017	1.80	481,975	October 24, 2018	October 24, 2027
October 24, 2017	1.80	297,271	October 24, 2020	October 24, 2027
		7,491,880		
		8,577,236		

The Group has no legal or constructive obligation to repurchase or settle the options in cash.

The movement in the number of share options is set out below:

	Weighted average exercise price £	**Year ended January 31, 2018**	Weighted average exercise price £	Year ended January 31, 2017
Outstanding at February 1,	**1.17**	**7,383,401**	1.29	7,006,306
Granted during the year	**1.83**	**2,972,903**	0.98	1,667,576
Lapsed during the year	**0.99**	**(1,430,532)**	1.90	(916,700)
Exercised during the year	**1.13**	**(348,536)**	0.76	(373,781)
Number of outstanding options at January 31,	**1.43**	**8,577,236**	1.17	7,383,401

As at January 31, 2018, 2,042,546 share options were capable of being exercised with a weighted average exercise price per option of 100 pence (2017: 1,972,654 with a weighted average exercise price per option of 84 pence). The options outstanding at January 31, 2018 had a weighted average exercise price per option of 143 pence (2017: 117 pence), and a weighted average remaining contractual life of 7.9 years (2017: 8.9 years).

23. Share option scheme and Restricted Stock Units (continued)

The fair value per share option award granted and the assumptions used in the calculations are as follows:

Date of grant	Type of award	Number of shares	Exercise price (£)	Share price at grant date (£)	Fair value per option (£)	Award life (years)	Risk free rate
April 07, 2011	EMI	5,873	0.65	0.65	0.47	5.00	2.70%
April 07, 2011	Unapproved	13,981	0.65	0.65	0.47	5.00	2.70%
May 10, 2012	EMI	150,046	0.60	0.52	0.24	5.00	1.00%
December 24, 2012	EMI	21,500	0.85	0.85	0.59	5.00	0.90%
January 31, 2013	EMI	72,973	0.20	0.94	0.74	5.00	1.00%
December 18, 2013	Unapproved	76,364	0.20	1.85	1.65	5.00	1.00%
June 23, 2014	Unapproved	400,000	1.48	1.50	0.92	3.80	1.30%
July 15, 2014	EMI	249,621	1.26	1.26	0.65	3.00	1.30%
July 15, 2014	Unapproved	847,500	1.26	1.26	0.65	3.00	1.30%
July 15, 2014	Unapproved	100,000	0.80	0.81	0.65	1.90	0.50%
January 21, 2015	EMI	25,000	1.23	1.22	0.64	3.00	0.60%
January 21, 2015	Unapproved	75,000	1.23	1.22	0.64	3.00	0.60%
June 15, 2015	Unapproved	2,252,333	1.43	1.44	0.65	3.00	0.91%
October 15, 2015	Unapproved	50,000	1.31	1.36	0.57	3.00	0.70%
June 23, 2016	EMI	560,343	1.05	1.05	0.25	3.00	0.30%
June 23, 2016	Unapproved	110,576	0.01	1.05	1.04	0.50	0.30%
June 23, 2016	Unapproved	250,000	1.05	1.05	0.24	3.00	0.30%
June 23, 2016	Unapproved	363,092	1.05	1.05	0.25	3.00	0.30%
April 11, 2017	Unapproved	150,436	1.85	1.85	0.68	3.00	0.07%
April 11, 2017	Unapproved	324,324	1.85	1.85	0.72	3.00	0.13%
April 11, 2017	Unapproved	762,764	1.85	1.85	0.76	2.20	0.07%
June 27, 2017	Unapproved	34,711	1.80	1.78	0.64	3.00	0.23%
July 18, 2017	Unapproved	533,629	1.83	1.83	0.66	3.00	0.26%
July 18, 2017	Unapproved	367,924	1.83	1.83	0.74	3.00	0.31%
October 24, 2017	Unapproved	481,975	1.80	1.70	0.57	3.00	0.46%
October 24, 2017	Unapproved	297,271	1.80	1.70	0.66	3.00	0.55%
		8,577,236					

The key assumptions used in calculating the share-based payments are as follows:

a. Black-Scholes valuation methodology was used for all share options issued since 2016.

b. The majority of share option awards made before 2016 are performance related and have been modeled using the Monte-Carlo methodology. The options granted on January 31, 2013 and December 18, 2013 at an exercise price of 20 pence respectively, and 16,667 of the unapproved options granted on June 23, 2014 are not performance related.

c. Figures in the range of 39%-134% have been used for expected volatility. This has been derived from historic share price performance, weighted to exclude periods of unusually high volatility.

d. Expected dividend yield is nil, consistent with the Directors' view that the Group's business model is to generate value through capital growth rather than the payment of dividends.

e. The risk free rate is equal to the prevailing UK Gilts rate at grant date that most closely matches the expected term of the grant.

f. Share options are assumed to be exercised immediately on vesting.

g. The fair value of share options awarded where there are different vesting installments is the average of the fair values calculated per installment.

23. Share option scheme and Restricted Stock Units (continued)

At January 31, 2018, the outstanding Restricted Stock Units ('RSUs') in the form of nominal-cost options, which have been granted to Non-Executive Directors, are shown below:

Date of grant	Exercise price (£)	Number of shares	Date from which exercisable	Expiry date
July 18, 2017	0.01	136,991	July 18, 2018	December 31, 2018
October 24, 2017	0.01	138,886	October 24, 2018	December 31, 2018
		275,877		

The movement in the number of RSUs is set out below:

	Weighted average exercise price £	**Year ended January 31, 2018**	Weighted average exercise price £	Year ended January 31, 2017
Outstanding at February 1,	—	—	—	—
Granted during the year	**0.01**	**275,877**	—	—
Number of outstanding RSUs at January 31,	**0.01**	**275,877**	—	—

As at January 31, 2018, nil RSUs were capable of being exercised (2017: nil). The RSUs outstanding at January 31, 2018 had a weighted average exercise price per RSU of 1 penny (2017: nil), and a weighted average remaining contractual life of 0.9 years.

The fair value per RSU's award granted and the assumptions used in the calculations are as follows:

Date of grant	**Number of shares**	**Exercise price (£)**	**Share price at grant date (£)**	**Fair value per option (£)**	**Award life (years)**	**Risk free rate**
July 18, 2017	136,991	0.01	1.83	1.82	1.00	0.24%
October 24, 2017	138,886	0.01	1.70	1.69	1.00	0.40%
	275,877					

The key assumptions used in calculating the share-based payments are as follows:

a. Black-Scholes valuation methodology was used for all RSUs.

b. Figures in the range of 47%-84% have been used for expected volatility. This has been derived from historic share price performance, weighted to exclude periods of unusually high volatility.

c. Expected dividend yield is nil, consistent with the Directors' view that the Group's business model is to generate value through capital growth rather than the payment of dividends.

d. The risk free rate is equal to the prevailing UK Gilts rate at grant date that most closely matches the expected term of the grant.

e. RSUs are assumed to be exercised immediately on vesting.

24. Fixed assets purchase commitments

At January 31, 2018, the Group had no capital commitments (January 31, 2017: nil).

25. Leasing and other commitments

The Group's total commitments under non-cancelable operating leases are as follows:

	Land & Buildings	
	January 31, 2018	January 31, 2017
	£000	£000
Leases which expire		
Not later than one year	**337**	88
Later than one year and not later than five years	**1,143**	122
	1,480	210

On February 17, 2017, the Group signed a ten year lease for new UK office premises. The total commitment of the new lease from the year end January 31, 2018 up until the break clause is £687,000.

In addition to land and buildings, the Group enters into contracts in the normal course of business with contract research organizations to assist in the performance of research and development activities and other services and products for operating purposes. These contracts generally provide for termination on notice, and therefore are cancelable contracts and not reflected in the table above.

26. Related party transactions

Dr. Frank Armstrong was a member of the board of Directors of Juniper Pharmaceuticals Inc., during the year until September 2017. During the year £nil (2017: £65,000) was paid to Juniper Pharma Services Limited, a wholly owned subsidiary of Juniper Pharmaceuticals Inc, in respect of clinical manufacturing services. Of this amount £nil was outstanding at the year end (2017: £nil).

Professor Stephen Davies is a member of the board of directors of Oxford University Innovation Limited. During the year £24,000 (2017: £36,000) was charged by Oxford University Innovation Limited in connection with payments due in respect of the strategic alliance between the Group and Oxford University that was entered into in November 2013. Of this amount £12,000 was outstanding at the year end (2017: £nil).

See Note 6 'Directors and employees' for details of key management emoluments.

27. Business combinations

On December 23, 2017, the Group acquired 100% of the share capital of Discuva Limited ('Discuva'), a privately held UK-based company. As part of the acquisition the Group has obtained a bacterial genetics-based platform to generate new mechanism antibiotics.

Under the terms of the acquisition, the consideration to Discuva shareholders comprised of £6.1 million in cash (being £5.0 million plus the value of net cash acquired by the Group as part of the acquisition) and £5.0 million in new ordinary shares of Summit of one penny nominal value issued to Discuva shareholders at a price of 170.4 pence per share, representing 2,934,272 Ordinary Shares.

The Group recognized £1.8 million of goodwill upon the acquisition of Discuva. Goodwill represents the difference between the fair value of the identifiable assets acquired and liabilities assumed for Discuva and the amount paid in consideration and is attributable to the existing Discuva workforce (which cannot be separately valued under accounting standards). The goodwill recognized will not be deductible for tax purposes.

27. Business combinations (continued)

The consideration paid for Discuva and the identifiable assets acquired and liabilities assumed are as follows:

	£000
Consideration	
Cash	6,091
2,934,272 new Summit Therapeutics plc Ordinary Shares issued	5,000
Total consideration	**11,091**

	Book value £000	Fair value adjustment £000	Fair value £000
Recognized amounts of identifiable assets acquired and liabilities assumed			
Cash and cash equivalents	1,316	—	1,316
Property, plant and equipment	329	—	329
Intangible assets - option over non-financial assets	668	—	668
Intangible assets - bacterial genetics-based platform	—	10,670	10,670
Trade and other receivables	1,129	—	1,129
Trade and other payables	(1,555)	—	(1,555)
Assumed contingent liabilities	—	(1,466)	(1,466)
Deferred tax liabilities	—	(1,814)	(1,814)
Book and fair value of identifiable net assets	**1,887**	**7,390**	**9,277**
Goodwill	—	1,814	1,814
Total consideration	**1,887**	**9,204**	**11,091**

The Group has recognized £10.7 million of identified intangible assets acquired related to the bacterial genetics-based platform. See Note 13 'Intangible assets' for further details.

The Group has assumed £1.5 million of contingent liabilities as part of the acquisition as, certain employees, former employees and former directors of Discuva are eligible for payments from Discuva based on specified development and clinical milestones related to proprietary product candidates developed under the platform. The timing of these potential payments is uncertain. See Note 20 'Provisions for other liabilities and charges and contingent liabilities' for further details.

The gross contractual amount for trade and other receivables due is £1.1 million, all of which is expected to be collectible.

The results of Discuva have been included in the Group's Consolidated Income Statement from December 23, 2017, contributing £0.3 million (1.2%) of Group revenues for the year ending January 31, 2018. Discuva contributed a gain of £0.02 million to the Group's total comprehensive loss for the year ended January 31, 2018.

If the acquisition had occurred on February 1, 2017, unaudited pro forma combined revenue for the year ended January 31, 2018 would have been £28.1 million, unaudited pro forma combined total comprehensive loss for the year ended January 31, 2018 would have been £7.3 million and unaudited pro forma combined basic and diluted loss per Ordinary Share from operations for the year ended January 31, 2018 would have been 11 pence. These amounts have been calculated using Discuva's results and adjusting them for costs associated with the acquisition, differences in the accounting policies between the Group and Discuva and amounts restated in Discuva's financial information.

Transaction costs

Acquisition related costs of £0.4 million have been excluded from the consideration transferred and recognized as a general and administration expense in the Consolidated Statement of Comprehensive Income for the year ended January 31, 2018.

28. Subsequent events

On March 29, 2018, the Group completed a placing on the AIM market of the London Stock Exchange, issuing 8,333,333 new Ordinary Shares at a price of 180 pence per share. Total proceeds of £15.0 million were raised (before expenses). Following the placing the number of Ordinary Shares in issue was 81,901,173.

Confidential Materials omitted and filed separately with the

Exhibit 4.26

AWARD/CONTRACT	1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) ➢	RATING	PAGE OF PAGES 1 63

2. CONTRACT *(Proc. Inst. Ident.)* NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQUEST/ PROJECT NO.
HHSO100201700014C	See Block 20C	OS202400

6. ISSUED BY CODE	ASPR-BARDA	6. ADMINISTERED BY *(If other than Item 5)* CODE	ASPR-BARDA02
ASPR-BARDA O'NEILL HOUSE OFFICE BUILDING Washington DC 20515		US DEPT OF HEALTH & HUMAN SERVICES ASST SEC OF PREPAREDNESS & RESPONSE ACQ MANAGEMENT, CONTRACTS, & GRANTS O'NEILL HOUSE OFFICE BUILDING Washington DC 20515	

7. NAME AND ADDRESS OF CONTRACTOR *(No., Street, City, County, State and ZIP Code)*	8. DELIVERY ☐ FOB ORIGIN ☒ OTHER *(See below)*
SUMMIT (OXFORD) LIMITED 1510803 [**]; 85B PARK DRIVE 85B PARK DRIVE MILTON PARK ABINGDON OXFORDSHIRE OX14	9. DISCOUNT FOR PROMPT PAYMENT
	10. SUBMIT NOTICES (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN ➢ ITEM
CODE 1510803 FACILITY CODE	

11. SHIP TO/MAKE FOR CODE	HHS/OS/ASPR	12. PAYMENT WILL MADE BY CODE	DHHS/FMS
HHS/OS/ASPR O'NEILL HOUSE OFFICE BUILDING WASHINGTON DC 20515		DHHS/FMS	

13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION ☐ 10 U.S.C. 2304(C) ( ) ☐ 41 U.S.C 253(C)( )	14. ACCOUNTING AND APPROPRIATION DATA 2017.1992017.25106

15A ITEM NO.	15B SUPPLIES/SERVICES	15C QUANTITY	15D UNIT	15E UNIT PRICE	15F AMOUNT
	Continued				
	15G. TOTAL AMOUNT OF CONTRACT ?				$31,967,000.00

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CONTRACTING OFFICER WILL COMPLETE ITEM 17 (SEALED BID OR NEGOTIATED PROCUREMENT) OR 18 (SEALED-BID PROCUREMENT) AS APPLICABLE

17. ☐ CONTRACTOR'S NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. *(Attachments are listed herein.)*	18. ☐ SEALED-BID AWARD *(Contractor is not required to sign this document.)* Your bid on Solicitation Number including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the terms listed above and on any continuation sheets. This award constitutes the contract which consists of the following documents: (a) the Government's solicitation and your bid, and (b) this award/contract. No further contractual document is necessary. (Block 18 should be checked only when awarding a sealed-bid contract.)

19A. NAME AND TITLE OF SIGNER *(Type or print)*	20A. NAME OF CONTRACTING OFFICER
ERIK OSTROWSKI, CHIEF FINANCIAL OFFICER	FRANCINE D. HEMPHILL

19B. NAME OF CONTRACTOR	19C. DATE SIGNED	20B. UNITED STATES OF AMERICA	20C. DATE SIGNED
SUMMIT (OXFORD) LIMITED			9-5-17
BY /s/ Erik Ostrowski *(Signature of person authorized to sign)*	9 / 5 / 2017	BY /s/ Francine D. Hemphill *(Signature of Contracting Officer)*	

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STANDARD FORM 26 (REV. 5/2011)
Prescribed by GSA – FAR (48 CFR) 53.214(a)

NAME OF OFFEROR OR CONTRACTOR

SUMMIT (OXFORD) LIMITED 1510803

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Tax ID Number: C0-0000487 DUNS Number: 733628718 ASPR-17-03886-Request Funding for Summit Therapeutics New Award BSA Delivery: 07/27/2017 Appr. Yr.: 2017 CAN: 1992017 Object Class: 25106 FOB: Destination Period of Performance: 08/31/2017 to 09/28/2018				
1	ASPR-17-03886 Request Funding for Summit Therapeutics New Award BSA Regulatory Approval of trials C004 & C005; clinical trial supplied manufactured, packaged, labeled & distributed. Obligated Amount: $31,967,000.00				31,967,000.00
2	Option 1. [**] Amount: $[**] (Option Line Item)			[**]	0.00
3	Option 2 : [**] Amount: $[**] (Option Line Item)			[**]	0.00
4	Option 3. [**] Amount: $[**] (Option Line Item)			[**]	0.00

CONTRACT TABLE OF CONTENTS

PART I – THE SCHEDULE

SECTION B – SUPPLIES OR SERVICES AND PRICES/COSTS

ARTICLE B.1. BRIEF DESCRIPTION OF SUPPLIES OR SERVICES

This contract is for the clinical development of Ridinilazole, a novel narrow spectrum antimicrobial, drug with proven utility against infections caused by *Clostridium difficile*. After demonstrating superiority over the clinical standard of care (vancomycin) in Phase 2, Ridinilazole ("the antibiotic) will advance through Phase 3 pivotal studies to the submission of a United States New Drug Application (NDA), potentially ensuring that a new therapy offering clear benefits over existing options is made available to the US population in order to address a key public health concern. The Research and Development (R&D) effort will progress in specific stages that cover the base period (CLIN 0001) and three (3) option period segments (CLINs 0002-0004) as specified in this contract. The base period (CLIN0001) will pursue the initiation of the two proposed Phase 3 studies covering regulatory approval, manufacturing of clinical supplies, and contracting of required vendors to initiate the clinical studies contemplated under the contract.

Work performed during the base period and during each option segment constitutes an independent, non-severable discrete work segment that cannot be subdivided for separate performance and is necessary to support R&D tasks related to the antibiotic. Each work segment constitutes an entire job (discrete requirement) which shall contain multiple R&D activities that when reviewed in total shall constitute a non-severable requirement. Each non-severable work segment will be fully funded from an appropriation source that is current at the time the work under such segment will be authorized to begin.

The Government has determined a *Bona Fide Need* for each non-severable discrete work segment which will conclude upon the completion of a defined task or defined tasks that provide(s) independent merit and value to the Government. The Contractor's success in completing the required tasks under the work segments must be demonstrated through the Deliverables and Milestones specified under Article F of this contract. As set forth in the Contract WBS Milestones/Deliverables and Technical Deliverables chart under Article F of this contract, the GO/NO GO Contract Milestones and Decision Gates will constitute the basis for the Government's decision, at its sole discretion, to exercise any follow-on option segment(s).

The base and option period segments under Contract Line Item (CLIN) 0001 are event driven work segments rather than time driven CLINs. The funds for each independent, non-severable discrete work segment (requirement), regardless of duration, shall only be used for the scope of work covered in each discrete work segment (i.e., the base period work segment and each option work segment). The periods of performance listed under each of the CLINs under Article B.2 and Article B.3 below are estimated time periods. Those individual time periods may be extended to complete the tasks required under each work segment. It is possible that more than one option segment (requirement), may be awarded at one time and that individual CLINs may overlap and/or proceed concurrently.

ARTICLE B.2. ESTIMATED COST

1. CLIN 0001 (the base period segment), and CLINs 0002 through CLIN 0004 (option period segments) are cost-sharing CLINs. Monies shall be provided for the total cost of performance from the Department of Health and Human Services, and the Contractor, Summit.

2. The Government shall provide monies for the base period segment (CLIN 0001) in an amount not to exceed $31,967,000. The Government will not be responsible for any Contractor incurred costs that exceed this amount unless a modification to the contract is signed by the Contracting Officer which expressly increases this amount. The Contractor's share is estimated at $[**].

3. The Contractor shall maintain records of all contract costs (including costs claimed by the Contractor as being its share) and such records shall be subject to the Audit and Records-Negotiation and Final Decisions on Audit Findings clauses of the General Clauses.

4. Costs contributed by the Contractor shall not be charged to the Government under any other contract, grant, or cooperative agreement (including allocation to other grants, contracts, or cooperative agreements as part of an independent research and development program). The Contractor shall report the organization's share of the costs expended by category, on the Financial Report, as referenced in the CONTRACT FINANCIAL REPORT Article in SECTION G of this contract.

5. It is estimated that the amount currently allotted will cover performance of the contract through September 30, 2018.

CLIN	Period of Performance	Supplies/Services	Government Share	Contractor Share	Total Cost
1	through Sept 30, 2018	[**]	$31,967,000	[**]	[**]

.

ARTICLE B. 3. OPTION PRICES

a. Unless the Government exercises its option pursuant to FAR Clause 52.217-9 (Option to Extend the Term of the Contract), contained in ARTICLE I.2, the contract consists only of the base period (CLIN 0001) specified in the Statement of Work as defined in SECTIONS C and F, for the price set forth in ARTICLE B.2 of the contract.

b. Pursuant to FAR Clause 52.217-9 (Option to Extend the Term of the Contract), the Government may, by unilateral contract modification, require the Contractor to perform the remaining Option Work Segments specified in the Statement of Work as defined in SECTIONS C and F of this contract. If the Government decides to exercise an option(s), the Government will provide the Contractor a preliminary written notice of its intent to exercise the option at least [**] days before the contract expires. If Option 1 CLIN 0002, Option 2 CLIN 0003 and Option 3 CLIN 0004 are exercised, the estimated cost of the contract will be increased as set forth in the table below:

Option CLIN	Period of Performance	Supplies/Services	Government Share	Contractor Share	Total Cost
Option1/ 0002	[**], 2018 through [**]	[**]	[**]	[**]	[**]
Option 2/ 0003	[**], 2018 through [**]	[**]	[**]	[**]	[**]
Option 3/ 0004	[**], 2020 through [**], 2022	[**]	[**]	[**]	[**]
	TOTAL		$61,994,045	[**]	[**]

ARTICLE B. 4. LIMITATIONS APPLICABLE TO DIRECT COSTS

a. Items Unallowable Unless Otherwise Provided

Notwithstanding the clauses and unless authorized in writing by the Contracting Officer, the cost of the following items or activities shall be unallowable as direct costs:

1. Acquisition, by purchase or lease, of any interest in real property;

2. Special rearrangement or alteration of facilities;

3. Accountable Government Property (*see* the HHS Contracting Guide for Control for Government Property incorporated by ARTICLE G.10. of this contract);

    a. Note: this includes the lease or purchase of <u>any</u> item of general purpose office furniture or office equipment regardless of dollar value.

4. Purchase or lease scientific instruments or equipment over $1,500;

5. Travel to attend general scientific meetings/conferences;

6. Unapproved travel in excess of the dollar amounts specified under subparagraph b.1 below

7. Printing Costs (as defined in the Government Printing and Binding Regulations);

8. Overtime (premium) compensation

9. Entering into certain types subcontract of arrangements (See Article B.5(c) for specific obligations). Note that most consulting agreements require CO's written consent.

10. Foreign Travel (see Subparagraph b.3);

11. Patient care costs (see Attachment 6);

12. Light Refreshment and Meal Expenditures - Requests to use contract funds to provide light refreshments and/or meals to either federal or nonfederal employees must be submitted to the Contracting Officer's Representative (COR), with a copy to the Contracting Officer, at least six (6) weeks in advance of the event and are subject to "HHS Policy on Promoting Efficient Spending: Use of Appropriate Funding for Conferences and Meetings, Food and Promotional Items and Printing and Publications." The request shall contain the following information: (a) name, date, and location of the event at which the light refreshments and/or meals will be provide; (b) a brief description of the purpose of the event; (c) a cost breakdown of the estimated light refreshments and/or meals costs; (d) the number of nonfederal and federal attendees receiving light refreshments and/or meals; and (e) if the event will be held at a government facility.

b. Travel Costs

1. Total expenditures for travel (transportation, lodging, subsistence, and incidental expenses) incurred in direct performance of this contract during the base period segment (CLIN 0001) shall not exceed $[**] without the prior written approval of the Contracting Officer. The Contractor shall notify the Contracting Officer in writing when travel expenditures have exceeded [**]% ($[**]) of the base period segment (CLIN 0001) travel expenses. Cost must be consistent with Federal Acquisition Regulations (FAR) 52.247-63 – Preference for U.S. Air Flag carriers whenever relevant..

2. Subject to the annual dollar limitation specified under B.4.b.1. above, the Contactor shall invoice and be reimbursed for all travel costs in accordance with Federal Acquisition Regulation (FAR) 31.2 – Contracts with Commercial Organizations, Subsection 31.205-46, Travel Costs.

3. If international travel is necessary, a Contracting Officer Authorization (COA) will be required. Expenditures for international travel (transportation, lodging, subsistence, and incidental expenses) incurred in direct performance of this contract shall not exceed the amount specified in each approved COA, without the prior written approval of the Contracting Officer.
   Requests for international travel must be submitted at least one week in advance and shall contain the following:

   a. meeting(s) and place(s) to be visited, with costs and dates;
   b. name(s) and title(s) of Contractor personnel to travel and their functions in the contract project;
   c. contract purposes to be served by the travel;
   d. how travel of Contractor personnel will benefit and contribute to accomplishing the contract project, or will otherwise justify the expenditure of ASPR contract funds;
   e. how such advantages justify the costs for travel and absence from the project of more than one person if such are suggested; and
   f. what additional functions may be performed by the travelers to accomplish other purposes of the contract and thus further benefit the project.

ARTICLE B.5. ADVANCE UNDERSTANDINGS

a. Security

No Security Plan is required at this point for this effort. It is anticipated that a security waiver will be approved.

b. Subcontracts

Prior written consent from the Contracting Officer in the form of Contracting Officer Authorization (COA) is required for any subcontract that:

- Is of the cost-reimbursement type; or
- Is Fixed-Price and exceeds $[**] or [**]% of the total estimated cost of the Contract, whichever value is greater.

The Contracting Officer shall request appropriate supporting documentation in order to review and determine authorization, pursuant with FAR Clause 52.244-2, Subcontracts. After receiving written consent of the subcontract by the Contracting Officer, the Contractor shall provide a copy of the signed, executed subcontract and consulting agreement to the Contracting Officer.

Note: Consulting services are treated as subcontracts and subject to the ‘consent to subcontract’ provisions set forth in this Article.

c. Sharing of contract deliverables within United States Government (USG)

In an effort to build a robust medical countermeasure pipeline through increased collaboration, BARDA may share technical deliverables set forth in Article F.2 with Government entities responsible for Medical Countermeasure Development. In accordance with recommendations from the Public Health Emergency Medical Countermeasure Enterprise Review, agreements established in the Integrated Portfolio’s Portfolio Advisory Committee (PAC) Charter, Technology Transfer Agreements

(TTA) between BARDA and the Defense Threat Reduction Agency and the National Institute of Allergies and Infectious Diseases (NIAID), BARDA may share technical deliverables set forth in Article F.2 with colleagues within the Integrated Portfolio. This provision applies to all deliverables and data developed during performance including deliverables and data paid for by the Contractor under the cost sharing arrangement all exercised CLINs herein. This advance understanding does not authorize BARDA to share financial information outside HHS. The Contractor is advised to review the terms of FAR Clause 52.227-14 regarding the Government's rights to deliverables submitted during performance as well as the Government's rights to data contained within those deliverables.

d. Overtime Compensation

No overtime (premium) compensation is authorized under the subject contract.

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

ARTICLE C.1. STATEMENT OF WORK

Independently and not as an agent of the Government, the Contractor shall furnish all the necessary services, qualified personnel, material, equipment, and facilities not otherwise provided by the Government as needed to perform the Statement of Work attached to this contract as Attachment 1 (SECTION J-List of Attachments).

As provided at FAR 35.002, this contract is directed toward objectives for which the work or methods cannot be precisely described in advance. It is difficult to judge the probability of success or required effort for technical approaches, some of which offer little or no early assurance of full success. The Contractor and the Government mutually acknowledge that risk of failure is inherent in all research endeavors. Accordingly, notwithstanding any other provision of this contract, the Contractor shall not be deemed to be in default of this contract, or of any requirement of the Statement of Work, due to unexpected or unfavorable research results, or delays or technical challenges precipitated by such unexpected or unfavorable research results.

Schedules, delivery dates and deadlines that are based upon attainment of certain clinical or research outcomes shall be considered as estimates and shall be subject to reasonable adjustments to reflect the uncertainties inherent in research, and the Government shall not unreasonably withhold approval of reasonable requests for adjustments as may be made by Contractor

ARTICLE C.2. REPORTING REQUIREMENTS

Refer to ARTICLE F.2. for specific instructions regarding Reporting Requirements.

ARTICLE C.3. EARNED VALUE MANAGEMENT SYSTEM (EVMS) IMPLEMENTATION REQUIREMENTS

The Contractor and the Government agree that the EVMS implementation requirements that are contained in this contract are limited to the implementation requirements outlined by the 7 Principles of Earned Value Management Tier 2 System Implementation Intent Guide contained as Attachment 9 (see SECTION J-List of Attachments) to the contract. The total amount of this contract reflects the use of the 7 Principles of EVMS Implementation. Any EVMS implementation requirements that are beyond the intent of the 7 Principles of EVMS Implementation shall not proceed until the Contracting Officer sends a written request for a proposal to the Contractor and a bilateral modification is issued to the contract for the purposes of incorporating the additional costs for the performance of these requirements into the contract.

Refer to ARTICLE F.2. for specifics on EVMS deliverables.

ARTICLE C.4. PROJECT MEETING CONFERENCE CALLS

A teleconference call between the Contracting Offficer, the Contracting Officer's Representative and the Contractor's Program Manager shall occur [**] or at the discretion of the Government. During this call, the Program Manager will discuss the activities during the reporting period, any problems that have arisen, and the activities planned for the ensuing reporting period. The Contractor's Program Manager may choose to include other key personnel on the conference call to give detailed updates on specific projects or this may be requested by the Contracting Officer's Representative.

Contractor will be responsible for preparing an agenda for the conference call and providing it to the Government no later than [**] business days prior to the scheduled conference call.

ARTICLE C.5. PROJECT MEETINGS

The Contractor shall participate in Project Meetings to coordinate the performance of the contract, as requested by the Contracting Officer's Representative. These meetings may include face-to-face meetings with BARDA and AMCG in Washington, D.C. and at work sites of the Contractor and its subcontractors. Such meetings may include, but are not limited to, meetings of the Contractor (and subcontractors invited by the Contractor) to discuss study designs, site visits to the Contractor's and subcontractor's facilities, and meetings with the Contractor and HHS officials to discuss the technical, regulatory, and ethical aspects of the program. The Contractor must provide data, reports, and presentations to groups of outside experts (subject to appropriate protections for Contractor confidential or proprietary data) and USG personnel as required by the Contracting Officer's Representative in order to facilitate review of contract activities.

a. Kickoff Meeting

The Contractor shall complete a Kickoff meeting within [**] days after contract award. Contractor shall provide an itinerary/agenda no later than [**] business days before meeting.

b. Quarterly and Ad-Hoc Meetings

At the discretion of the COR, the Contractor shall participate in Project Meetings to coordinate the performance of the contract, as requested by the Contracting Officer's Representative. These meetings may include teleconferences or face-to-face meetings with BARDA and AMCG in Washington, D.C. or at work sites of the Contractor and its subcontractors. Such meetings may include, but are not limited to, meetings of the Contractor (and subcontractors invited by the Contractor) to discuss study designs, site visits to the Contractor's and subcontractor's facilities, and meetings with the Contractor and HHS officials to discuss the technical, regulatory, and ethical aspects of the program. The Contractor must provide data, reports, and presentations to groups of outside experts (subject to appropriate protections for Contractor's confidential or proprietary data) and Government personnel as required by the Contracting Officer's Representative, giving reasonable prior notice of such requirement to Contractor, in order to facilitate review of contract activities.

Contractor shall provide itinerary/agenda at least [**] business days in advance of face-to-face meeting.

c. Face-to-Face In Process Review

The Contractor shall, at a time to be determined later, present a comprehensive review of contract progress to date in a face-to-face meeting in Washington, DC. The Contractor will be responsible for updating BARDA program on technical progress under the Statement of Work. Presentation must be delivered [**] business days prior to the scheduled meeting.

SECTION D – PACKAGING, MARKING, AND SHIPPING

All deliverables required under this contract shall be packaged, marked and shipped in accordance with Section F. At a minimum, all deliverables shall be marked with the contract number and Contractor name.

The Contractor shall guarantee that all required materials shall be delivered in immediate usable and acceptable condition

Unless otherwise specified by the Contracting Officer, delivery of reports to be furnished to the USG under this contract (including invoices) shall be delivered to the CO and COR electronically along with a concurrent email notification to the Contract Specialist (as defined in SECTION F.3. ELECTRONIC SUBMISSION) summarizing the electronic delivery.

SECTION E – INSPECTION AND ACCEPTANCE

ARTICLE E.1. FAR 52.246-9 Inspection of Research and Development (Short Form) (Apr 1984)

The Government has the right to inspect and evaluate the work performed or being performed under the contract, and the premises where the work is being performed, at all reasonable times and in a manner that will not unduly delay the work. If the Government performs inspection or evaluation on the premises of the Contractor or a subcontractor, the Contractor shall furnish and shall require subcontractors to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties.

ARTICLE E.2. DESIGNATION OF GOVERNMENT PERSONNEL

For the purpose of this SECTION E, the designated Contracting Officer's Representative (COR) is the authorized representative of the Contracting Officer. The COR will assist in resolving technical issues that arise during performance. The COR however is not authorized to change any contract terms or authorize any changes in the Statement of Work or modify or extend the period of performance, or authorize reimbursement of any costs incurred during performance.

ARTICLE E.3. INSPECTION, ACCEPTANCE AND CONTRACT MONITORING

Inspection and acceptance of the materials services and documentation called for herein shall be accomplished by the Contracting Officer or a duly authorized representative.

Inspection and acceptance will be performed at:

Office of Acquisition Management, Contracts, and Grants (AMCG) Office of the Assistant Secretary for Preparedness and Response

Office of Acquisition Management, Contracts, and Grants (AMCG) DHHS/OS/ASPR/AMCG
Room 11J17 - O'Neill House Office Building
Washington, DC 20515

a. Site Visits and Inspections

At the discretion of the USG and independent of activities conducted by the Contractor, with [**] notice to the contractor, the USG reserves the right to conduct site visits and inspections on an as needed basis, including collection of product samples and intermediates held at the location of the contractor, or subcontractor. All costs reasonably incurred by the Contractor and subcontractor for such visit and/or inspection shall be allowable costs subject to the Allowable cost requirements in FAR Subpart 31.2. The Contractor shall coordinate these visits and shall have the opportunity to accompany the USG on any such visits. Under time-sensitive or critical situations, the USG reserves the right to suspend the [**] notice to the Contractor. The areas included under the site visit could include, but are not limited to: security, regulatory and quality systems, manufacturing processes and cGMP/GLP/GCP compliance.

If the USG, Contractor, or other party identifies any issues during an audit, the Contractor shall capture the issues, identify potential solutions, and provide a report to the USG for review and acceptance.

- If issues are identified during the audit, the Contractor shall submit a report to the CO and COR within [**] business days detailing the finding and corrective action(s) of the audit.
- COR and CO will review the report and provide a response to the Contractor within [**] business days.
- Once corrective action is completed, the Contractor will provide a final report to the CO and COR.

SECTION F – DELIVERIES OR PERFORMANCE

ARTICLE F.1. ESTIMATED PERIOD OF PERFORMANCE

The estimated period of performance for this contract shall be consistent with the dates set forth in the base period CLIN 0001 set forth in ARTICLE B.2. If the Government exercises its Option(s) pursuant to the Option Clause in ARTICLE I.3 of the contract, the period of performance shall be increased as shown in the table in Article B.3.

ARTICLE F.2. DELIVERABLES

Successful performance of the final contract shall be deemed to occur upon completion of performance of the work set forth in the Statement of Work dated June 2, 2017 set forth in SECTION J - List of Attachments of this contract and upon delivery and acceptance, as required by the Statement of Work, by the Contracting Officer, of each of the deliverables described in SECTION C, SECTION F, and SECTION J.

All deliverables and reporting documents listed within this section shall be delivered electronically (as defined in SECTION F.3. ELECTRONIC SUBMISSION) to the CO, CS, and the COR unless otherwise specified by the Contracting Officer.

a. **Summary of Contract Deliverables**

Unless otherwise specified by the Contracting Officer, the deliverables identified in this SECTION F shall also be delivered electronically to the designated eRoom along with a concurrent email notification sent to the Contracting Officer, Contract Specialist, COR, and Alternate COR stating delivery has been made.

All paper/hardcopy documents/reports submitted under this contract shall be printed or copied, double-sided, on at least 30 percent post-consumer fiber paper, whenever practicable, in accordance with FAR 4.302(b). Hard copies of deliverables and reports furnished to the USG under the resultant Contract (including invoices) shall be addressed as follows:

HHS/ASPR/AMCG
ATTN: [**]
Contracting Officer
Room [**] – O'Neill House Office Building
Washington, DC 20515
Email: [**]

DHHS/OS/ASPR/AMCG
[**]
Contract Specialist
Room [**] – O'Neill House Office Building
Washington, DC 20515

(202) 205-4857
[**]

HHS/ASPR/BARDA
ATTN: [**]
Contracting Officer's Representative
Room [**] –O'Neill House Office Building
Washington, DC 20515
Email: [**]

1. **<u>Summary of Contract Deliverables</u> - Unless otherwise stated, each deliverable in the table below shall be provided as one (1) electronic copy to the COR, CS, and CO asset forth in SECTION D.**

TECHNICAL DELIVERABLES

CDRL#	Deliverable	Deliverable Description	Reporting Procedures and Due Dates
1	Kickoff Meeting	The Contractor shall complete a Kickoff meeting after contract award	• Due: Within [**] of contract award. • Materials: Contractor shall provide itinerary and agenda to CO and COR at least [**] business days in advance of site visit. CO approves and and the COR distributes itinerary and agenda within [**] business days. • Due out: Contractor provides meeting minutes to CO and COR within [**] business days after the meeting. The CO and COR reviews, comments, and the CO approves minutes within [**] business days.
2	Quarterly Meetings	The Contractor shall hold recurring teleconference or face-to-face Project Review Meetings approximately every third month either in Washington D.C or at work sites of the Contractor or subcontractors. Face-to-face meetings shall alternate between Washington DC and Contractor, sub-contractor sites, with the first to be held in Washington DC. The meetings will be used to discuss contract progress in relation to the Program Management deliverables described below as well as study designs, technical, regulatory, and ethical aspects of the program.	• Materials: Contractor shall provide itinerary and agenda to CO and COR at least [**] business days in advance of site visit. The COR approves and distributes itinerary and agenda within [**] business days. • Due out: Contractor provides meeting minutes to the CO and the COR within [**] business days after the meeting. The CO and COR reviews, comments, and the CO approves minutes within [**] business days.
3	[**]Teleconference Meetings	The Contractor shall participate in teleconferences every [**] [**] with the CO and the COR to discuss the performance of the contract.	• Materials: Contractor provides agenda to the CO and COR no later than [**] business days in advance of meeting. The COR approves anddistributes agenda prior to meeting. • Due out: Contractor provides meeting minutes to the CO and COR within [**] business days following the meeting. The CO and COR reviews, comments, and the COR approves minutes within [**] business days following the meeting.

CDRL#	Deliverable	Deliverable Description	Reporting Procedures and Due Dates
04 (Monthly) 05 (Annual)	Monthly & Annual Technical Progress Reports	The Monthly and Annual Technical Progress report shall address each of the below items and be cross-referenced to the Work Breakdown Structure (WBS), Statement of Work (SOW), Integrated Master Schedule (IMS), Performance Measurement Baseline Review report (PMBR), Earned Value Management (EVM), and Contract Performance Report (CPR). 1. An Executive Summary highlighting the progress, issues and relevant manufacturing, non-clinical, clinical and regulatory activities. The Executive Summary should highlight only critical issues for that reporting period and resolution approach; limited to 2-3 pages. 2. Progress in meeting contract milestones – broken out by subtasks within each milestone, overall project assessment, problems encountered and recommended solutions. The reports shall detail the planned and actual progress during the period covered, explaining occurrences of any differences between the two and the corrective steps. 3. The reports shall also include a [**]-month rolling forecast of the key planned activities, referencing the WBS/IMS. 4. A tracking log of progress on regulatory submissions with the FDA number, description of submission, date of submission, status of submission and next steps. 5. Provide updated EVM/CPR. 6. Estimated and Actual Expenses. 7. This report shall also contain a narrative or table detailing whether there is a significant discrepancy (>10%) at this time between the % of work completed and the cumulative costs incurred to date. Monthly and actual expenses should be broken down to the appropriate WBS level. This section of the report should also contain estimates for the Subcontractors' expenses from the previous month if the Subcontractor did not submit a bill in the previous month. If the subcontractor(s) was not working or did not incur any costs in the previous month, then a statement to this effect should be included in this report for those respective subcontractors.	• Due: Monthly Reports shall be submitted on the [**] day of the month after the end of each month with an Annual Report submitted on the [**] calendar day of the final month of each contract year for the previous twelve calendar months. Monthly progress reports are not required for the periods when the Annual Report(s) and Final Report are due. The CO and the COR will review the monthly reports and provide feedback within [**] business days of receiving the report . The CO approves acceptance of monthly and annual reports.

CDRL#	Deliverable	Deliverable Description	Reporting Procedures and Due Dates
6	Earned Value Management (EVM) / Contract Performance Report (CPR)	Contractor will provide a monthly Contract Performance Report (CPR) Format 1 at an agreed upon reporting level using the Government provided WBS and a Variance Analysis Report (Format 5). The supplemental monthly CAP report shall contain, at the work package level, time phased budget (budgeted cost of work scheduled), earned value (budgeted cost of work performed), and actual costs of work performed as captured in Contractor's EVM systems. The Contractor shall provide a rationale in the package of its use of % complete as EVMS methodology or identity if any other EVMS methodology is being used.	• Due: Reporting will commence after the EVM system has been implemented but no later than [**] months after start of base period. Contractor shall provide EVM/CPR as part of the Monthly Progress Report on the [**] day of the month after the end of each month (this requirement begins only as set forth in the Contract Milestones & Related Deliverables table. • Contractor shall provide top level or key changes in baseline cost as a result of anticipated cost savings or risks. • The CO may request, on a [**] or ad hoc basis that the Contractor provide raw data at a reporting level or lower level as the CO deems necessary. • The CO may raise, in writing, concerns for Contractor to address; Contractor must address, in writing, all concerns raised by the CO and COR . The CO approves acceptance of EVM monthly and annual reports.
7	Performance Measurement Baseline Review (PMBR)	PMBR Report shall address each of the items listed below and be cross-referenced to the IMP, WBS, SOW, and Risk Management Plan. 1. Contractor provides baseline proposal. 2. Responsibility Assignment Matrix. 3. A description of the work scope through control account Work Authorization Documents and/or WBS Dictionary down to the control account level. 4. Template for work packages. 5. IMS with the inclusion of agreed major milestones and control account plans for all control accounts. 6. Baseline revision documentation and program log(s) risk management plan.	• Due: Within [**] days of contract award. • Materials: Contractor shall provide o Baseline proposal briefing documents [**] business days prior to meeting. o Agenda to the CO and COR, [**] business days in advance of meeting. o The COR approves and distributes agenda no later than [**] business days in advance of meeting. o The COR approves all meeting material no later than [**] business days in advance of meeting. • Due out: Contactor provides o Minutes within [**] business days of the meeting. the CO and the COR reviews and the COR approves minutes. o PMBR report. The CO and COR will provide written comments and questions to Contractor. Contractor shall address the COR's comments and resubmit PMBR report for CO approval within [**] business days.

CDRL#	Deliverable	Deliverable Description	Reporting Procedures and Due Dates
8	Risk Management Plan	The Contractor shall provide a Risk Management Plan that outlines the impacts of each risk in relation to the cost, schedule, and performance objectives. The plan shall include risk mitigation strategies. Each risk mitigation strategy will capture how the corrective action will reduce impacts on cost, schedule and performance.	• Due: Within [**] days of contract award. • Due out: Contractor provides updated Risk Management Plan in Monthly Progress Report. The COR shall provide Contractor with written comments in response submitted plan. Contractor must address, in writing, all commercially reasonable concerns raised by the COR within [**] business days of Contractor's receipt of COR's concerns for CO approval.
9	Deviation Notification and Mitigation Strategy	Process for changing IMS activities associated with cost and schedule as baselined at the PMBR. Contractor shall notify the CO of significant changes the IMS defined as increases in cost above 5% or schedule slippage of more than 30 days, which would require a PoP extension. Contractor shall provide a high level management strategy for risk mitigation.	• Due: As needed.
10	Go/No-Go Decision Gate Presentation	Contractor shall provide a presentation detailing technical progress made towards completion of Go/No-Go decision gate milestones following a prescribed template provided by the CO prior to the IPR.	• Materials: Contractor shall provide presentation materials to the CO and COR [**] business days prior to the In-Process Review (IPR). Contractor shall submit written justification of progress towards satisfying Go/No-Go criteria. After reviewing, CO and COR will provide a written response within [**] business days.
11	Incident Report	Contractor shall communicate and document all critical programmatic concerns, risks, or potential risks with the CO and COR.	• Due: Within [**] of activity or incident or within [**] for a security activity or incident via email or telephone, with written follow-up to the CO and COR. Additional updates due within [**] of additional developments. • Due out: Contractor shall submit, within [**] business days, a Corrective Action Plan (if deemed necessary by either party) to address any potential issues. If corrective action is deemed necessary, Contractor must address in writing, its consideration of concerns raised by the CO, within [**] business days of receiving such concerns in writing.

CDRL#	Deliverable	Deliverable Description	Reporting Procedures and Due Dates
12	Draft and Final Reports for Clinical and Non-Clinical Studies	Contractor shall provide Draft and Final Clinical/Non-Clinical Study Reports to the CO and COR for review and comment.	• Draft - within [**] calendar days after completion of analysis and at least [**] business days prior to submission to FDA. Subcontractor prepared reports received by the Contractor shall be submitted to the CO and COR for review and comment no later than [**] business days after receipt by Contractor. The CO shall provide written comments to the Draft Final Report for Clinical and Non-Clinical Studies within [**] business days after the submission. • Final - due [**] calendar days after receiving comments on the Draft Final Report for Clinical and Non-Clinical Studies. If corrective action is recommended, Contractor must address, in writing, all reasonable concerns raised by the CO in writing. Contractor shall consider revising reports to address CO's recommendations prior to FDA submission. • Final FDA submissions shall be provided to the CO and COR concurrently or no later than [**] after submission to the FDA.
13	Standard Operating Procedures	The Contractor shall make internal and, to the extent possible, subcontractor Standard Operating Procedures (SOPs) available for review electronically.	Upon request from the CO.
14	Manufacturing Campaign Reports	Contractor shall provide Manufacturing Campaign Reports to the CO and COR for review and comment prior to submission to FDA. The COR and CO reserve the right to request within the PoP a non-proprietary Manufacturing Campaign Report for distribution within the USG.	• Due: Contractor will submit Manufacturing Campaign Reports at least [**] business days prior to FDA submission. • Due out: If corrective action is recommended, Contractor must address, in writing, all concerns raised by the CO in writing. Contractor shall consider revising reports to address CO and COR's concerns and/or recommendations prior to FDA submission. • Final FDA submission shall be submitted to the CO and COR concurrently or no later than [**] after submission to the FDA.
15	FDA Correspondence	The Contractor shall memorialize any correspondence between Contractor and FDA and submit to the CO and COR. All documents shall be duly marked as either "Draft" or "Final".	• Due: Contractor shall provide written summary of any FDA correspondence within [**] business days of correspondence.
16	FDA Meetings	The Contractor shall forward the dates and times of any meeting with the FDA to the CO and COR and make arrangements for appropriate government staff to attend the FDA meetings. Government staff shall include up to a maximum of four people (COR, CO and up to 2 subject matter experts).	• Contractor shall notify the CO and COR of upcoming FDA meeting within [**] of scheduling Type A, B or C meetings OR within [**] of meeting occurrence for ad hoc meetings. • The Contractor shall forward initial Contractor and FDA-issued draft minutes and final minutes of any meeting with the FDA to the CO and COR within [**] business days of receipt. All documents shall be duly marked as either "Draft" or "Final".

CDRL#	Deliverable	Deliverable Description	Reporting Procedures and Due Dates
17	FDA Submissions	The Contractor shall provide the CO and COR the opportunity to review and comment upon all draft submissions before submission to the FDA. Contractor shall provide the CO and COR with an electronic copy of the final FDA submission. All documents shall be duly marked as either “Draft” or “Final”.	• Due: Contractor shall submit draft FDA submissions to the CO and COR at least [**] business days prior to FDA submission. The CO and COR will provide feedback to Contractor within [**] business days of receipt. • Due out: If corrective action is recommended, the Contractor must address, in writing, its consideration of all concerns raised by the CO. • The Contractor shall consider revising their documents to address CO’s concerns and/or recommendations prior to FDA submission. • Final FDA submissions shall be submitted to the CO and COR concurrently or no later than [**] of its submission to CDER.
18	FDA Audits	In the event of an FDA inspection which occurs as a result of this contract and for the product, or for any other FDA inspection that has the reasonable potential to impact the performance of this contract, the Contractor shall provide the USG with an exact copy (non-redacted) of the FDA Form 483 and the Establishment Inspection Report (EIR). The Contractor shall provide the COR and CO with copies of the plan for addressing areas of non-conformance to FDA regulations for GLP, GMP, or GCP guidelines as identified in the audit report, status updates during the plans execution and a copy of all final responses to the FDA. The Contractor shall also provide redacted copies of any FDA audits received from subcontractors that occur as a result of this contract or for this product. The Contractor shall make arrangements for CO and BARDA representative(s) to be present during the final debrief by the regulatory inspector.	• Contractor shall notify the CO and COR within [**] business days of a scheduled FDA audit or within [**] of an ad hoc site visit/audit if the FDA does not provide advanced notice. • Contractor shall provide copies of any FDA audit report received from subcontractors that occur as a result of this contract or for this product within [**] business days of receiving correspondence from the FDA or third party. • Within [**] business days of audit report, Contractor shall provide CO with a plan for addressing areas of nonconformance, if any are identified.
19	QA Audit Reports	The COR reserves the right to participate in QA audits. Upon completion of the audit/site visit the Contractor shall provide a report capturing the findings, results and next steps in proceeding with the subcontractor. If action is requested of the subcontractor, detailed concerns for addressing areas of non-conformance to FDA regulations for GLP, GMP, or GCP guidelines, as identified in the audit report, must be provided to the CO and COR. The Contractor shall provide responses from the subcontractors to address these concerns and plans for corrective action execution.	• Contractor shall notify the CO and COR [**] days in advance of upcoming, ongoing, or recent audits/site visits of subcontractors as part of weekly communications. • Contractor shall notify the CO and COR within [**] business days of report completion.

CDRL#	Deliverable	Deliverable Description	Reporting Procedures and Due Dates
20	Government Audit	Contractor shall accommodate periodic or ad hoc site visits by the CO and COR. If the CO, COR, Contractor, or other parties identifies any issues during an audit, the Contractor shall capture the issues, identify potential solutions, and provide a report to the CO and COR.	• If issues are identified during the audit, Contractor shall submit a report to the CO and COR detailing the finding and corrective action(s) within [**] business days of the audit. • Due out: The CO and COR will review the report and provide a response to the Contractor with [**] business days. Once corrective action is completed, the Contractor will provide a final report to the CO and COR.
21	Technical Documents	Upon request, Contractor shall provide CO and COR with deliverables from the following contract funded activities: process Development Reports, Assay Qualification Plan/ Report, Assay Validation Plan/Report, Assay Technology Transfer Report, Batch Records, SOPs, Master Production Records, Certificate of Analysis, Clinical Studies Data or Reports. The CO and COR reserve the right to request within the PoP a non-proprietary technical document for distribution within the Government.	• Contractor shall provide technical document within [**] business days of COR's request. Contractor can request additional time on an as needed basis. • If corrective action is recommended by the COR, the Contractor must address, in writing, concerns raised by the COR to the COR and CO in writing.
22	Animal Model or Other Technology Transfer Package	Contractor shall provide Animal Model or Other Technology Transfer Package relevant data.	• Contractor shall provide data within [**] business days of the COR's request to the CO and COR.
23	Raw Data or Data Analysis	Contractor shall provide raw data or data analysis to the CO and COR upon request.	• Contractor shall provide data or data analysis to the CO and COR within [**] business days of request.
24	Product Transition Strategy	Contractor shall provide a 2-4 page summary document containing a Product Transition Strategy to support transition of the product(s) prior to end of the base and/or option(s) POP. The Product Transition Strategy should provide a strategic plan for further development and/or stockpiling of the product. The transition strategy shall provide options and/or a specific approach for the transition of MCM product for further development, procurement, approval and/or stockpile.	• Contractor shall provide a Product Transition Strategy to support transition of the product(s) [**] days prior to the end of the (base/option) POP as addendum to the Quarterly Project Status Report.
25	Publications	Any manuscript or scientific meeting abstract containing data generated under this contract must be submitted to the CO and COR for review prior to submission.	• Contractor must submit all manuscript or scientific meeting abstract to the CO and COR within [**] days for manuscripts and [**] days for abstracts. • Contractor must address in writing all concerns raised by the CO and COR in writing. • Final submissions shall be submitted to the CO and COR concurrently or no later than [**] after its submission.

CDRL#	Deliverable	Deliverable Description	Reporting Procedures and Due Dates
26	Press Releases	Contractor agrees to accurately and factually represent the work conducted under this contract in all press releases.	• With the exception of ad-hoc press releases required by applicable law or regulations, Contractor shall ensure that the CO and COR has received and approved an advanced copy of any draft press release to this contract not less than [**] business days prior to the issuance of the press release. The CO shall revert with comments within [**] of receipt of the draft press release. Should no comments be forthcoming from the CO by end of the [**], Summit will be permitted to issue the press release • If corrective action is required, the Contractor agrees to accurately and factually represent the work conducted under this contract in all press releases. • Any final press releases shall be submitted to the CO and COR no later than [**] prior to its release.
27	Integrated Master Plan (IMP)	The Contractor shall provide an IMP including WBS, critical path milestones, and Earned Value Management Plan.	• Due: Contractor shall provide the draft IMP within 90 days of contract award with final due [**] months after award and updated monthly as part of the Monthly Progress Report. • Contractor must address, in writing, all concerns raised by the COR in writing and provide response to the CO and COR .
28	Draft and Final Technical Progress Report	A Draft Final Technical Progress Report containing a summation of the work performed and the results obtained for the entire contract PoP. The draft report shall be duly marked as 'Draft'. The Final Technical Progress Report incorporating feedback received from the CO and COR and containing a summation of the work performed and the results obtained for the entire contract PoP. The final report shall document the results of the entire contract. This report shall be in sufficient detail to fully describe the progress achieved under all milestones. The final report shall be duly marked as 'Final'.	• Due: Contractor shall provide a draft Technical Progress Report [**] calendar days before the end of the PoP and the Final Technical Progress Report on or before the completion date of the PoP. • Subcontractor prepared reports received by the Contractor shall be submitted to the CO and COR for review and comment no later than [**] business days after receipt by the Contractor. • Due out: the CO shall provide feedback on draft report within [**] calendar days of receipt, which the Contractor shall consider incorporating into the Final Report. • Contractor shall submit, with the Final Technical Progress Report, a summary (not to exceed 200 words) of salient results achieved during the performance of the contract.

CDRL#	Deliverable	Deliverable Description	Reporting Procedures and Due Dates
29	Draft and Final Study Protocols	Contractor shall provide all Draft and Final Study Protocols to the COR for evaluation. (The CO and COR reserves the right to request within the period of performance a non-proprietary Study Protocol for distribution within the United States Government (USG))	• The Contractor will submit all proposed protocols to to the CO and COR at least [**] business days prior to study start. If corrective action is required, the Contractor must address in writing all concerns raised by the CO and COR to the satisfaction of the COR before study execution and provide the CO and COR a revised draft protocol that addresses the CO's comments and requested changes. • After receiving the revised Study Protocol that satisfies the COR, the CO will approve the revised Study Protocol and will provide a written approval to the Contractor that provides authorization to the Contractor to execute the specific study. • Contractor shall not proceed with any study protocol until the COR gives its approval and the Contractor has provided the CO and COR with a final and approved Study Protocol.
30	Clinical Study Status Update	;	• Update will be submitted by e-mail or other electronic format to be provided by the COR by the end of the [**] business day of each new month. • Updates, to the extent they are available, will be presented during biweekly teleconferences. • If no changes have occurred since the prior update only a simple statement that there is no new data is required.

NOTE: Pursuant to federal law, no Government personnel shall publish, divulge, disclose, or otherwise make known to any non-government entity any Contractor data marked according to FAR 52.227-14, unless permitted to do so by law or regulation.

2. **Detailed Description of Select Contract Deliverables**

A. Monthly and Annual Progress Reports

In addition to those reports required by the other terms of this contract, the Contractor shall prepare and submit the following reports in the manner stated below and in accordance with this Article F of this contract, and in the Statement of Work, attached to this contract as Attachment 1 (SECTION J-List of Attachments).

i. Monthly Progress Report

This report shall include a description of the activities during the reporting period, and the activities planned for the ensuing reporting period. The first reporting period consists of the first full month of performance plus any fractional part of the initial month. Thereafter, the reporting period shall consist of each calendar month.

The Contractor shall submit a Monthly Progress Report according to the dates set forth in the summary table ("Summary of Contract Deliverables") under this article. The progress report shall conform to the requirements set forth in the DELIVERIES Article in SECTION F of this contract.

The format should include:

- A cover page that includes the contract number and title; the type of report and period that it covers; the Contractor's name, address, telephone number, fax number, and e-mail address; and the date of submission;
- SECTION I – EXECUTIVE SUMMARY
- SECTION II - PROGRESS
- SECTION II Part A: OVERALL PROGRESS - A description of overall progress.
- SECTION II Part B: MANAGEMENT AND ADMINISTRATIVE UPDATE - A description of all material meetings, conference calls, etc. that have taken place during the reporting period. Include progress on administration and management issues (e.g., evaluating, and managing subcontractor performance, and personnel changes).
- SECTION II Part C: TECHNICAL PROGRESS - For each activity related to Gantt chart, document the results of work completed and cost incurred during the period covered in relation to proposed progress, effort and budget. The report shall be in sufficient detail to explain comprehensively the results achieved. The description shall include pertinent data and/or graphs in sufficient detail to explain any significant results achieved and preliminary conclusions resulting from analysis and scientific evaluation of data accumulated to date under the contract. The report shall include a description of problems encountered and proposed corrective action; differences between planned and actual progress, why the differences have occurred and what corrective actions are planned; preliminary conclusions resulting from analysis and scientific evaluation of data accumulated to date under the project.
- SECTION II Part D: PROPOSED WORK - A summary of work proposed related to Gantt chart for the next reporting period and preprints/reprints of papers and abstracts.
- SECTION III: Estimated and Actual Expenses.
  a. This section of the report shall contain a narrative or table detailing whether there is a significant discrepancy (>10%) at this time between the % of work completed and

the cumulative costs incurred to date. Monthly and actual expenses should be broken down to the appropriate WBS level.
b. This section of the report should also contain estimates for the Subcontractors' expenses from the previous month if the Subcontractor did not submit a bill in the previous month. If the subcontractor(s) was not working or did not incur any costs in the previous month, then a statement to this effect should be included in this report for those respective subcontractors.

- SECTION IV: Earned Value Management Reporting: Contractor will provide a monthly Contract Performance Report (CPR) at an agreed upon reporting level (WBS level 3) using the Government provided WBS and a Variance Analysis Report. EVMS shall be applied to all CLINs as part of the Integrated Master Project Plan following the Seven Principles of Earned Value Management. In accordance with FAR 52.215-2, Audit and Records-Negotiation, the Contracting Officer may request, on a quarterly or ad hoc basis, that the Contractor provide raw data. The CO may request additional data at a reporting level or at lower levels, as the CO deems necessary.
  A Monthly Progress Report will not be required in the same month that the Annual Progress Report is submitted.

ii. Annual Progress Report

This report shall include a summation of the results of the entire contract work for the period covered. Monthly Progress Reports shall not be submitted in the same month when an Annual Progress Report is due. Furthermore, an Annual Progress Report will not be required for the period when the Final Report is due.

The first Annual Progress Report shall be submitted in accordance with the date set forth in the table ("Summary of Contract Deliverables") under ARTICLE F.2. of this contract. The progress report shall conform to the requirements set forth in the DELIVERIES Article in SECTION F of this contract.

Each Annual Progress Report shall include:

- A Cover page that includes the contract number and title; the type of report and period that it covers; the Contractor's name, address, telephone number, fax number, and email address; and the date of submission;
- SECTION I: EXECUTIVE SUMMARY - A brief overview of the work completed, and the major accomplishments achieved during the reporting period.
- SECTION II: PROGRESS
- SECTION II Part A: OVERALL PROGRESS - A description of overall progress.
- SECTION II Part B: MANAGEMENT AND ADMINISTRATIVE UPDATE - A high level summary of critical meetings, etc. that have taken place during the reporting period. Include progress on administration and management to critical factors of the project (e.g. regulatory compliance audits and key personnel changes).
- SECTION II Part C: TECHNICAL PROGRESS - A detailed description of the work performed structured to follow the activities and decision gates outlined at the Integrated Baseline Review and as described in the Integrated Master Plan. The Report should include a description of any problems (technical or financial) that occurred or were identified during the reporting period, and how these problems were resolved.
- SECTION II Part D: PROPOSED WORK - A summary of work proposed for the next year period to include an updated Gantt Chart.
- SECTION III: Estimated and Actual Expenses.
  a. This section of the report shall contain a narrative or table detailing whether there were discrepancies between estimated and actual expenses over the past year.

Actual expenses should be broken down to the appropriate WBS level. This section of the report should also contain estimates for outstanding costs for the previous year which may have been incurred, but not yet billed.

- SECTION IV: EARNED VALUE MANAGEMENT REPORTING - Contractor will provide a quarterly Contract Performance Report (CPR) at an agreed upon (WBS level 3) reporting level using the Government provided WBS and a Variance Analysis Report. EVMS shall be applied to all Cost Plus Fixed Fee CLINs as part of the Integrated Master Project Plan following the Seven Principles of Earned Value Management. In accordance with FAR 52.215-2, Audit and Records-Negotiation, the Government may request, on a quarterly or ad hoc basis, that the Contractor provide raw data. The Government may request additional data at a reporting level or at lower levels, as the Government deems necessary.
  Contractor also should include the following in the Annual Progress Report:

  1. Copies of manuscripts (published and unpublished), abstracts, and any protocols or methods developed specifically under the contract during the reporting period; and
  2. A summary of any Subject Inventions per the requirements under FAR Clause 52.227-11.

iii. Draft Final Report and Final Report

These reports are to include a summation of the work performed and results obtained for the entire contract period of performance. This report shall be in sufficient detail to describe comprehensively the results achieved. The Draft Final Report and Final Report shall be submitted in accordance with the DELIVERIES Article in SECTION F of the contract. An Annual Progress Report will not be required for the period when the Final Report is due. The Draft Final Report and the Final Report shall be submitted in accordance with the dates set forth in the table (“Summary of Contract Deliverables”) under ARTICLE F.2. of this contract. The report shall conform to the following format:

1. Cover page to include the contract number, contract title, performance period covered, Contractor's name and address, telephone number, fax number, email address and submission date.

2. SECTION I: EXECUTIVE SUMMARY - Summarize the purpose and scope of the contract effort including a summary of the major accomplishments relative to the specific activities set forth in the Statement of Work.

3. SECTION II: RESULTS - A detailed description of the work performed related to WBS and Gantt chart, the results obtained, and the impact of the results on the scientific and/or public health community including a listing of all manuscripts (published and in preparation) and abstracts presented during the entire period of performance and a summary of all inventions.

Draft Final Report: The Contractor is required to submit the Draft Final Report to the Contracting Officer’s Representative and Contracting Officer. The COR and CO will review the Draft Final Report and provide the Contractor with comments in accordance with the dates set forth in ARTICLE F.2. of this contract.

Final Report: The Contractor will deliver the final version of the Final Report on or before the completion date of the contract. The final version shall include or address

the COR's and CO's written comments on the draft report. Final Report shall be submitted on or before the completion date of the contract.

iv. Summary of Salient Results

The Contractor shall submit, with the Final Report, a summary (not to exceed 200 words) of salient results achieved during the performance of the contract.

v. Audit Reports

Within [**] calendar days of an audit related to conformance to FDA regulations and guidance, including adherence to GLP, GMP, GCP guidelines, the Contractor shall provide copies of the audit report (so long as received from the FDA) and a plan for addressing areas of nonconformance to FDA regulations and guidelines for GLP, GMP, or GCP guidelines as identified in the final audit report.

vi. Other Technical Reports

1. Draft Report for Clinical and Non-Clinical Studies and Final Report for Clinical and Non-Clinical Studies

- The clinical trial reports shall follow the format of International Conference on Harmonization document ICH E3 "Guideline for Industry on Structure and Content of Clinical Study Reports"
- Draft Final Report for Clinical and Non-Clinical Studies funded by this contract will be submitted to the COR and CO for review and comment within the time frames set forth in the table ("Summary of Contract Deliverables") under ARTICLE F.2.
- Subcontractor prepared reports received by the Contractor shall be submitted to the CO and COR for review and comment as set forth by the table in this Article. Contractor shall consider revising reports to address the CO's and COR's recommendations prior to FDA submission.
- The Government shall provide written comments to the Draft Final Report for Clinical and Non-Clinical Studies in accordance with the dates set forth by the table in this Article.
- The comprehensive Final Report for Clinical and Non-Clinical Studies will be submitted to the CO and the COR set forth by the table in this Article.

2. Supplemental Technical Documents

Upon request, Contractor shall provide the Government with the following contract funded documents as specified below but not limited to: Process Development Reports; Assay Qualification Plan/Report, Assay Validation Plan/Report, Assay Technology Transfer Report, Batch Records, Contractor/Subcontractor Standard Operating Procedures (SOP's), Master Production Records, Certificate of Analysis, Clinical Studies Data or Reports. The CO and COR reserve the right to request within the Period of Performance a non-proprietary technical document for distribution within the USG. Contractor shall provide technical document within [**] business days of CO or COR request. Contractor can request additional time on an as needed basis. If edits are recommended, the Contractor must address, in writing, concerns raised by the CO or COR in writing.

B. Deliverables Arising from FDA Correspondence

i. FDA Meetings

The Contractor shall forward the dates and times of any meeting with the FDA to the CO and COR and make arrangements for appropriate Government staff to attend the FDA meetings. Government staff shall include up to a maximum of four people (COR, CO and up to 2 subject matter experts).

- Contractor shall notify the Contracting Officer of upcoming FDA meeting within [**] of scheduling Type A, B or C meetings OR within [**] of meeting occurrence for ad hoc meetings.
- The Contractor shall forward initial Contractor and FDA-issued draft minutes and final minutes of any meeting with the FDA to the CO and COR within [**] business days of receipt. All documents shall be duly marked as either “Draft” or “Final.”

ii. FDA Submissions

The Contractor shall provide the CO and COR all documents submitted to the FDA. Contractor shall provide the Government with an electronic copy of the final FDA submission. All documents shall be duly marked as either “Draft” or “Final.”

- If draft documents are submitted for CO/COR review, the Government will provide feedback to Contractor within [**] business days of receipt.
- If the CO and the COR review draft documents, the Contractor shall revise their documents to address the Government’s written concerns and/or recommendations prior to FDA submission.
- Final FDA submissions shall be submitted to the CO and the COR concurrently or no later than [**] of their submission to FDA.

iii. FDA Audits

In the event of an FDA inspection which occurs as a result of this contract and for the product, or for any other FDA inspection that has the reasonable potential to impact the performance of this contract, the Contractor shall provide the USG with an exact copy (non-redacted) of the FDA Form 483 and the Establishment Inspection Report (EIR) within [**] business days after the Contractors receipt of those documents. The Contractor shall provide the COR and CO with copies of the plan for addressing areas of non-conformance to FDA regulations for GLP, GMP, or GCP guidelines as identified in the audit report, status updates during the plans execution and a copy of all final responses to the FDA. The Contractor shall also provide redacted copies of any FDA audits received from subcontractors that occur as a result of this contract or for this product. The Contractor shall make arrangements for BARDA representative(s) to be present during the final debrief by the regulatory inspector.

- Contractor shall notify CO and COR within [**] business days of a scheduled FDA audit or within [**] after an ad hoc site visit/audit if the FDA does not provide advanced notice.
- Contractor shall provide copies of any FDA audit report received from subcontractors that occur as a result of this contract or for this product within [**] business days after receiving correspondence from the FDA, Subcontractor, or third party.
- Within [**] business days after receiving any FDA audit report, Contractor shall provide CO with a plan for addressing areas of nonconformance, if any are identified.

iv. Manufacturing Campaign Reports

Contractor shall provide Manufacturing Campaign Reports to the CO and the COR for review and comment prior to submission to FDA.

The COR and CO reserve the right to request within the Period of Performance (PoP) a non-proprietary Manufacturing Campaign Report for distribution within the USG.

- Contractor will submit Manufacturing Campaign Reports to the CO and the COR at least [**] business days prior to FDA submission.
- If corrective action is recommended, Contractor must address, in writing, all concerns raised by the CO or the COR in writing.
- Contractor shall revise the reports to reasonably address the CO's or COR's concerns and/or recommendations prior to FDA submission.
- Final FDA submission shall be submitted to the CO and COR concurrently or no later than [**] after submission to the FDA.

v. Other FDA Correspondence

The Contractor shall memorialize any correspondence between Contractor and FDA and submit to the CO and the COR. All documents shall be duly marked as either "Draft" or "Final." Contractor shall provide written summary of any FDA correspondence within [**] business days of correspondence.

C. Earned Value Management (EVM) Deliverables

i. Earned Value Management (EVM) / Contract Performance Report (CPR)

Contractor will provide a monthly CPR at an agreed upon reporting level using WBS and Variance Analysis report formats agreed upon by the Government.

The supplemental monthly Control Account Plan (CAP) report shall contain, at the work package level, time phased budget (budgeted cost of work scheduled), earned value (budgeted cost of work performed), and actual costs of work performed as captured in Contractor's EVM systems. The Contractor shall provide a rationale in the package of its use of % complete as EVMS methodology, or identity if any other EVMS methodology is being used.

- Contractor shall provide EVM/CPR as part of the Monthly Progress Report (this requirement begins only as set forth in the Contract Milestones & Related Deliverables table, see CDRL #4)
- Contractor shall provide top level or key changes in baseline cost as a result of anticipated cost savings or risks
- The Government may request, on a monthly or ad hoc basis that the Contractor provide raw data at a reporting level or lower level as the Government deems necessary.
- Contractor must address, in writing, all concerns raised by the Government in writing.
- Reporting will commence after the EVM system has been implemented but no later than [**] days after start of base period and each exercised option period.

ii. Integrated Master Plan (IMP)

The Contractor shall provide an IMP including WBS, critical path milestones, and Earned Value Management Plan

- Contractor shall provide the draft IMP within [**] days of contract award with final due [**] months after award and updated monthly as part of the Monthly Progress Report
- Contractor must address, in writing, all concerns raised by the Government in writing

iii. Performance Measurement Baseline Review (PMBR)

PMBR Report shall address each of the items listed below and be cross-referenced to the IMP, WBS, SOW, and Risk Management Plan.

1. Contractor provides baseline proposal
2. Responsibility Assignment Matrix
3. A description of the work scope through control account Work Authorization Documents and/or WBS Dictionary down to the agreed upon control account level.
4. Template for work packages
5. Integrated Master Schedule (IMS) with the inclusion of agreed major milestones and control account plans for all control accounts
6. Baseline revision documentation and program log(s) risk management plan
    - PMBR is due within [**] days of contract award
    - Contractor shall provide baseline proposal .ppt briefing [**] business days prior to meeting
    - Contractor provides agenda to COR [**] business days in advance of meeting
    - CO approves and distributes agenda
    - CO approves all meeting material
    - Contactor provides minutes with [**] business days of the meeting
    - CO and COR reviews and approves minutes
    - CO and COR will review documentation and provide written comments and questions to Contractor
    - Contractor shall address the Government's comments and resubmit PMBR report for CO/COR approval within [**] business days.

iv. Risk Management Plan

The Contractor shall provide a Risk Management Plan that outlines the impacts of each risk in relation to the cost, schedule, and performance objectives. The plan shall include risk mitigation strategies. Each risk mitigation strategy will capture how the corrective action will reduce impacts on cost, schedule and performance.

- Due within [**] days of contract award
- Contractor provides updated Risk Management Plan in Monthly Progress Report
- The CO shall provide Contractor with a written list of concerns in response to the plan submitted. The Contractor must address, in writing, all concerns raised by the Government in writing within [**] business days of Contractor's receipt of the Government's concerns.

v. Requirement for Notification of Deviation and Mitigation Strategy

. Contractor shall notify the Government of significant changes the IMS defined as increases in cost above [**]% or schedule slippage of more than [**] days, which would require an extension to the period of performance. Contractor shall provide a high level management strategy for risk mitigation. Notice due as needed.

ARTICLE F.3. ELECTRONIC SUBMISSION

For electronic delivery, the Contractor shall upload documents to the appropriate folder on https://eroom.bardatools.hhs.gov/eRoom ("eRoom") which is the designated USG file sharing system. The USG shall provide two contractor representatives authorized log in access to the file share program. Each representative must complete a mandatory training provided by the USG prior to gaining user access. A notification email should be sent to the CO and COR upon electronic delivery of any documents.

ARTICLE F.4. SUBJECT INVENTION REPORTING REQUIREMENT

All reports and documentation required by FAR Clause 52.227-11, Patent Rights-Ownership by the Contractor, including, but not limited to, the invention disclosure report, the confirmatory license, and the government support certification, one copy of an annual utilization report, and a copy of the final invention statement, shall be submitted to the Contracting Officer. A final invention statement (see FAR 27.303 (b)(2)(ii)) shall be submitted to the Contracting Officer within [180 days] after the expiration date of the contract.

Reports and documentation submitted to the Contracting Officer shall be sent to the address set forth in SECTION G – CONTRACT ADMINISTRATION DATA.

If no invention is disclosed or no activity has occurred on a previously disclosed invention during the applicable reporting period, a negative report shall be submitted to the Contracting Officer at the address listed above.

ARTICLE F.5 FAR Clause 52.242-15 Alt. I: **Stop-Work Order (Aug. 1989)** is incorporated by reference.

Contract WBS Milestones/Deliverables and Technical Deliverables

GO-NOGO Milestone #	Milestone definition	Success criteria	Failure criteria	Deliverable to achieve milestone	WBS Element	CLIN Initiated by Milestone Success
1	[**]	[**]	[**]	[**]	1.4.3	2
2	[**]	[**]	[**]	[**]	1.6.3.2 and 1.4.4.3	2
3	[**]	[**]	[**]	[**]	1.6.3.1	3
4	[**]	[**]	[**]	[**]	1.4.3	4
5	[**]	[**]	[**]	[**]	1.4.3	4
6	[**]	[**]	[**]	[**]	1.6.3 and 1.6.4	4
7	[**]	[**]	[**]	[**]	1.5.2.2	NA

SECTION G - CONTRACT ADMINISTRATION DATA

ARTICLE G.1. CONTRACTING OFFICER

The following Contracting Officers (CO) will represent the USG for the purpose of this contract:

[**]
Contracting Officer
DHHS/OS/ASPR/AMCG
Room [**] –O'Neill House Office Building
Washington, DC 20515
[**]

James Bowers
[**]
DHHS/OS/ASPR/AMCG
Room [**] – O'Neill House Office Building
Washington, DC 20515
[**]

1) The Contracting Officer is the only individual who can legally commit the Government to the expenditure of public funds. No person other than the Contracting Officer can make any changes to the terms, conditions, general provisions, or other stipulations of this contract.
2) The Contracting Officer is the only person with the authority to act as agent of the Government under this contract. Only the Contracting Officer has authority to (1) direct or negotiate any changes in the statement of work; (2) modify or extend the period of performance; (3) change the delivery schedule; (4) authorize reimburse to the Contractor of any costs incurred during the performance of this contract; (5) otherwise change any terms and conditions of this contract.
3) No information other than that which may be contained in an authorized modification to this contract, duly issued by the Contracting Officer, which may be received from any person employed by the US Government, other otherwise, shall be considered grounds for deviation from any stipulation of this contract.
4) The Government may unilaterally change its CO designation. It will notify Contractor in writing of such change.

ARTICLE G.2. CONTRACTING OFFICER'S REPRESENTATIVE (COR)

The following Contracting Officer's Representatives (COR) will represent the Government for the purpose of this contract:

[**]
Division of CBRN Countermeasures
Biomedical Advanced Research & Development Authority (BARDA)
Office of Secretary for Preparedness & Response (ASPR)
Department of Health and Human Services
Mailing Address:
Contracting Officer's Representative
ASPR/BARDA
Room [**] -O'Neill House Office Building
Washington, DC 20515

The COR is responsible for:

1) Monitoring the Contractor's technical progress, including the surveillance and assessment of performance and recommending to the Contracting Officer changes in requirements;
2) Assisting the Contracting Officer in interpreting the statement of work and any other technical performance requirements;
3) Performing technical evaluation as required;
4) Performing technical inspections and acceptances required by this contract; and
5) Assisting in the resolution of technical problems encountered during performance. The Government may unilaterally change its COR designation, after which it will notify Contractor in writing of such change..

ARTICLE G.3. KEY PERSONNEL

Pursuant to the Key Personnel clause incorporated in Section I of this contract, the following individuals are considered to be essential to the work being performed hereunder:

#	NAME	ORGANIZATION	TITLE
1	[**]	[**]	[**]
2	[**]	[**]	[**]
3	[**]	[**]	[**]

The key personnel specified in this contract are considered to be essential to work performance. At least [**] business days prior to diverting any of the specified individuals to other programs or contracts, including, where practicable, an instance when an individual must be replaced as a result of leaving the employ of the Contractor, the Contractor shall notify the Contracting Officer and shall submit comprehensive justification, including a CV for the replacement), for the diversion or replacement request (including proposed substitutions for key personnel) to permit evaluation by the Government of the impact on performance under this contract. The Contractor shall not divert or otherwise replace any key personnel without the written consent of the Contracting Officer.

ARTICLE G.4. CONTRACT FINANCIAL REPORT

a. Financial reports on the attached Financial Report of Individual Project/Contract shall be submitted by the Contractor to the CO with a copy to the COR in accordance with the instructions for completing this form, which accompany the form, in an original and one electronic copy, not later than the [**] business day after the close of the reporting period. The line entries for subdivisions of work and elements of cost (expenditure categories), which shall be reported within the total contract, are discussed in paragraph e., below. Subsequent changes and/or additions in the line entries shall be made in writing.

b. Unless otherwise stated in the instructions for completing this form, all columns A through J, shall be completed for each report submitted.

c. The first financial report shall cover the period consisting of the first full three calendar months following the date of the contract, in addition to any fractional part of the initial month. Thereafter, reports will be on a quarterly basis.

d. The Contracting Officer may require the Contractor to submit detailed support for costs contained in one or more interim financial reports. This clause does not supersede the record retention requirements in FAR Part 4.7.

e. The listing of expenditure categories to be reported is incorporated as a part of this contract and can be found under SECTION J Attachment 3 entitled, "Financial Report of Individual Project/Contract".

f. The USG may unilaterally revise the “Financial Report of Individual Project/Contract” to reflect the allotment of additional funds.

ARTICLE G.5. INVOICE/FINANCING REQUEST AND CONTRACT FINANCIAL REPORTING

Include Program Support Center (PSC) in Receipt of Invoices:

Documents shall be delivered electronically to the Contracting Officer (CO), the Contracting Specialist (CS), the Contracting Officer’s Representative (COR) and PSC. Unless otherwise specified by the Contracting Officer all deliverables and reports furnished to the Government under the resultant contract (including invoices) shall be addressed as follows:

PSC_Invoices@psc.hhs.gov	[**] Contracting Officer DHHS/ OS/ASPR/AMCG Room [**] –O’Neill House Office Building Washington, DC 20515 Email [**]	[**] Contracting Specialist DHHS/OS/ASPR/ AMCG Room [**] – O’Neill House Office Building Washington, DC 20515 Email: [**]	[**] Contracting Officer Representative DHHS/ASPR/BARDA Room [**] -O’Neill House Office Building Washington, DC 20515 Email: [**]

a. Contractor invoices/financial reports shall conform to the form, format, and content requirements of the instructions for Invoice/Financing requests and Contract Financial Reporting.

b. Monthly invoices must include the cumulative total expenses to date, adjusted (as applicable) to show any amounts suspended by the USG.

c. The Contractor agrees to immediately notify the CO in writing if there is an anticipated overrun (any amount) or unexpended balance (greater than 10 percent) of the estimated costs for the base period or any option period(s) (See estimated costs under Articles B.2) and the reasons for the variance. These requirements are in addition to the specified requirements of FAR Clause 52.232-20, Limitation of Cost that is incorporated by reference under Article I.1 which states:

Limitation of Cost (Apr 1984)

(a) The parties estimate that performance of this contract, exclusive of any fee, will not cost the Government more than (1) the estimated cost specified in the Schedule or, (2) if this is a cost-sharing contract, the Government’s share of the estimated cost specified in the Schedule. The Contractor agrees to use its best efforts to perform the work specified in the Schedule and all obligations under this contract within the estimated cost, which, if this is a cost-sharing contract, includes both the Government’s and the Contractor’s share of the cost.

(b) The Contractor shall notify the Contracting Officer in writing whenever it has reason to believe that—

(1) The costs the Contractor expects to incur under this contract in the next 60 days, when added to all costs previously incurred, will exceed 75 percent of the estimated cost specified in the Schedule; or

(2) The total cost for the performance of this contract, exclusive of any fee, will be either greater or substantially less than had been previously estimated.

(c) As part of the notification, the Contractor shall provide the Contracting Officer a revised estimate of the total cost of performing this contract.

(d) Except as required by other provisions of this contract, specifically citing and stated to be an exception to this clause—

(1) The Government is not obligated to reimburse the Contractor for costs incurred in excess of (i) the estimated cost specified in the Schedule or, (ii) if this is a cost-sharing contract, the estimated cost to the Government specified in the Schedule; and

(2) The Contractor is not obligated to continue performance under this contract (including actions under the Termination clause of this contract) or otherwise incur costs in excess of the estimated cost specified in the Schedule, until the Contracting Officer (i) notifies the Contractor in writing that the estimated cost has been increased and (ii) provides a revised estimated total cost of performing this contract. If this is a cost-sharing contract, the increase shall be allocated in accordance with the formula specified in the Schedule.

(e) No notice, communication, or representation in any form other than that specified in paragraph (d)(2) of this clause, or from any person other than the Contracting Officer, shall affect this contract's estimated cost to the Government. In the absence of the specified notice, the Government is not obligated to reimburse the Contractor for any costs in excess of the estimated cost or, if this is a cost-sharing contract, for any costs in excess of the estimated cost to the Government specified in the Schedule, whether those excess costs were incurred during the course of the contract or as a result of termination.

(f) If the estimated cost specified in the Schedule is increased, any costs the Contractor incurs before the increase that are in excess of the previously estimated cost shall be allowable to the same extent as if incurred afterward, unless the Contracting Officer issues a termination or other notice directing that the increase is solely to cover termination or other specified expenses.

(g) Change orders shall not be considered an authorization to exceed the estimated cost to the Government specified in the Schedule, unless they contain a statement increasing the estimated cost.

(h) If this contract is terminated or the estimated cost is not increased, the Government and the Contractor shall negotiate an equitable distribution of all property produced or purchased under the contract, based upon the share of costs incurred by each.

d. The Contractor shall submit an electronic copy of the payment request to the approving official instead of a paper copy. The payment request shall be transmitted as an attachment via e-mail to the address listed above in one of the following formats: MSWord, MS Excel, or Adobe Portable Document Format (PDF). Only one payment request shall be submitted per e-mail and the subject line of the e-mail shall include the Contractor's name, contract number, and unique invoice number.

e. An electronic copy of the payment request shall be uploaded into the designated eRoom (as defined in SECTION F.3 ELECTRONIC SUBMISSION) and an e-mail notification of the upload will be provided to the CO and COR.

f. All invoice submissions shall be in accordance with FAR Clause 52.232-25, Prompt Payment (Jan 2017).

g. Invoices - Cost and Personnel Reporting, and Variances from the Negotiated Budget.

The Contractor agrees to provide a detailed breakdown on invoices of the following cost categories:

a. Direct Labor - List individuals by name, title/position, hourly/annual rate, level of effort (actual hours or % of effort), and amount claimed.
b. Fringe Benefits - Cite rate and amount
c. Overhead - Cite rate and amount
d. Materials & Supplies - Include detailed breakdown when total amount is over $1,500.
e. Travel - Identify travelers, dates, destination, purpose of trip, and total breaking out amounts for transportation (plane, car etc), lodging, M&IE. Cite COA, if appropriate. List separately, domestic travel, general scientific meeting travel, and foreign travel.
f. Consultant Fees - Identify individuals, amounts and activities. Cite appropriate COA
g. Subcontracts - Attach subcontractor invoice(s). Cite appropriate COA
h. Equipment - Cite authorization and amount. Cite appropriate COA
i. Other Direct Costs - Include detailed breakdown when total amount is over $1,500.
j. G&A - Cite rate and amount.
k. Total Cost

Monthly invoices must include the cumulative total expenses to date, adjusted (as applicable) to show any amounts suspended by the USG. Nothing in this section discharges the Contractor's responsibility to comply with any applicable FAR Parts 30 or 31 clauses' relating to cost reimbursement subcontracts. In order to verify allowability, further breakdown of costs may be requested at the USG's discretion. The Contractor shall subcontract with Firm Fixed Price Contracts to the maximum extent practicable.

Additional instructions and an invoice template are provided in Attachment 2, Invoice/Financing Request Instructions and Contract Financial Reporting Instructions for Cost-Reimbursement Type Contracts. All invoices must be signed by a representative of the Contractor authorized to certify listed charges are accurate and comply with government regulations. Invoices should be submitted electronically (in accordance with ARTICLE F.3., (ELECTRONIC SUBMISSION) Only with signature.

If applicable, the Contractor shall convert any foreign currency amount(s) in the monthly invoice to U.S. dollars each month, on the 1st of the month, using the foreign exchange rate index published on www.federalreserve.gov. Payment of invoices is subject to the U.S. dollar limits within the Total Estimated Cost, the Total Fixed Fee and the Total Estimated Cost Plus Fixed Fee of each active CLIN(s) in Section B under the contract.

ARTICLE G.6. REIMBURSEMENT OF COST

1) The Government shall reimburse the Contractor the cost determined by the Contracting Officer to be allowable (hereinafter referred to as allowable cost) in accordance with FAR Clause 52.216-7, Allowable Cost and Payment incorporated by reference in Section I, Contract Clauses, of this contract, and FAR Subpart 31.2. Examples of allowable costs include, but are not limited to, the following:

   a) All direct materials and supplies that are used in performing the work provided for under the contract, including those purchased for subcontracts and purchase orders.

   b) All direct labor, including supervisory, that is properly chargeable directly to the contract, plus fringe benefits.

   c) All other items of cost budgeted for and accepted in the negotiation of this basic contract or modifications thereto.

   d) Travel costs including per diem or actual subsistence for personnel while in an actual travel status in direct performance of the work and services required under this contract subject to the following:

      (i) Air travel shall be by the most direct route using “air coach” or “air tourist” (less than first class) unless it is clearly unreasonable or impractical (e.g., not available for reasons other than avoidable delay in making reservations, would require circuitous routing or entail additional expense offsetting the savings on fare, or would not make necessary connections).

      (ii) Rail travel shall be by the most direct route, first class with lower berth or nearest equivalent.

      (iii) Costs incurred for lodging, meals, and incidental expenses shall be considered reasonable and allowable to the extent that they do not exceed on a daily basis the per diem rates set forth in the Federal Travel Regulation (FTR).

      (iv) Travel via privately owned automobile shall be reimbursed at not more than the current General Services Administration (GSA) FTR established mileage rate.

ARTICLE G.7. INDIRECT COST RATE

The following indirect cost rates will be utilized for total contract cost calculation purposes during both the base and option periods:

Fringe Benefits:	[**]% of total salaries and wages
General and Administrative (G&A): other direct costs	[**]% of total direct costs excluding subcontract and

The government will not be obligated to pay additional amounts should the contractor’s actual rates during contract performance period exceed the above established rates.

ARTICLE G.8. POST AWARD EVALUATION OF CONTRACTOR PERFORMANCE

1. Contractor Performance Evaluations

Interim and final evaluations of Contractor performance will be prepared on this contract in accordance with FAR Subpart 42.15. The final performance evaluation will be prepared at the time of completion of work. In addition to the final evaluation, an interim evaluation shall be submitted annually.

Interim and final evaluations will be provided to the Contractor as soon as practicable after completion of the evaluation. The Contractor will be permitted [**] days to review the document and to submit additional information or a rebutting statement. If agreement cannot be reached between the parties, the matter will be referred to an individual one level above the Contracting Officer whose decision will be final.

Copies of the evaluations, Contractor responses, and review comments, if any, will be retained as part of the contract file, and may be used to support future award decisions.

2. Electronic Access to Contractor Performance Evaluations

Contractors that have Internet capability may access evaluations through a secure Web site for review and comment by completing the registration form that can be obtained at the following address:

http://www.cpars.csd.disa.mil/cparsmain.htm

The registration process requires the Contractor to identify an individual that will serve as a primary contact and who will be authorized access to the evaluation for review and comment. In addition, the Contractor will be required to identify an alternate contact that will be responsible for notifying the cognizant contracting official in the event the primary contact is unavailable to process the evaluation within the required [**]-day time frame.

ARTICLE G.9. CONTRACT COMMUNICATIONS/CORRESPONDENCE (JULY 1999)

The Contractor shall identify all correspondence, reports, and other data pertinent to this contract by imprinting the contract number from Page 1 of the contract.

ARTICLE G.10. GOVERNMENT PROPERTY

1. In addition to the requirements of the clause, GOVERNMENT PROPERTY, incorporated in SECTION I of this contract, the Contractor shall comply with the provisions of HHS Publication, "HHS Contracting Guide for Control of Government Property," which is incorporated into this contract by reference. This document can be accessed at:

http://www.hhs.gov/hhsmanuals/ (HHS Logistics Management Manual)

Among other issues, this publication provides a summary of the Contractor's responsibilities regarding purchasing authorizations and inventory and reporting requirements under the contract.

2. Notwithstanding the provisions outlined in the HHS Publication, "HHS Contracting Guide for Control of Government Property," which is incorporated in this contract in paragraph 1. above, the Contractor shall use the form entitled, "Report of Government Owned, Contractor Held Property" for submitting summary reports required under this contract, as directed by the Contracting Officer or his/her designee. This form attached as Attachment 7 to this contract (SECTION J-LIST OF ATTACHMENTS).

3. Title will vest in the Government for equipment purchased as a direct cost.

SECTION H - SPECIAL CONTRACT REQUIREMENTS

The Contractor, depending upon the nature of the work, is responsible for following the provisions below in conducting its own work under this contract. The Contractor also is responsible for incorporating these provisions into any subcontract awarded, if applicable to the specific nature of the work in the subcontract. Accordingly, those provisions shall be flowed-down as applicable.

ARTICLE H.1 CLINICAL AND NON-CLINICAL TERMS OF AWARD

BARDA has a responsibility to obtain documentation concerning mechanisms and procedures that are in place to protect the safety of participants and animals in BARDA funded clinical trials and non-clinical studies. Therefore, the Contractor shall develop a protocol for each clinical trial *and* non-clinical study funded under this contract and submit all such protocols and protocol amendments to the Contracting Officer's Representative (COR) for evaluation and comment. Approval by the COR is required before work under a protocol may begin. The COR comments will be forwarded to the Contractor within [**] business days. The Contractor must address, in writing, all concerns (*e.g.* study design, safety, regulatory, ethical, and conflict of interest) noted by the COR.

If the draft protocols are to be submitted to the FDA, BARDA review shall occur before submission, pursuant to the terms set forth by ARTICLE F.2 of this contract. The Contractor shall consider revising their protocols to address the COR's concerns and recommendations prior to FDA submission. The Contractor must provide the CO and the COR with a copy of FDA submissions, within the time frame set forth by ARTICLE F.2 of this contract.

Execution of clinical and non-clinical studies requires written authorization from the Government. The USG will provide written authorization to the Contractor upon either 1) receiving documentation in which all COR comments have been satisfactorily addressed; or 2) receiving documentation that the FDA has reviewed and commented on the protocol.

The Government shall have rights to all protocols, data resulting from execution of these protocols, and final reports funded by BARDA under this contract, as set forth in the FAR clauses referenced in PART II of this contract. The Government reserves the right to request that the Contractor provide any contract deliverable in a non-proprietary form (e.g. redacted and /or abridged as necessary as reasonably determined by the Contractor) to ensure the Government has the ability to review and distribute the deliverables as the Government deems necessary.

Important information regarding performing human subject research is available at http://www3.niaid.nih.gov/healthscience/clinicalstudies/.

Any updates to technical reports are to be addressed in the Monthly and Annual Progress Reports. The Contractor shall advise the Contracting Officer's Representative or designee in writing and via electronic communication in a timely manner of any issues potentially affecting contract performance.

1. **Non-Clinical Terms of Award**

   These Non-Clinical Terms of Award detail an agreement between the Biomedical Advanced Research and Development Authority (BARDA) and the Contractor; they apply to all grants and contracts that involve non-clinical research.

   a. Safety and Monitoring Issues

i. PHS Policy on Humane Care and use of Laboratory Animals

Before award and then with the annual progress report, the Contractor must submit to the CO and COR a copy of the current Institutional Animal Care and Use Committees (IACUC) documentation of continuing review and approval and the Office of Laboratory Animal Welfare (OLAW) federal wide assurance number for the institution or site.

If other institutions are involved in the research (e.g., a multicenter trial or study), each institution's IACUC must review and approve the protocol.
They must also provide the CO and the COR initial and annual documentation of continuing review and approval and federal wide assurance number.

The Contractor must ensure that the application, as well as all protocols, are reviewed by the performing institution's IACUC.

To help ensure the safety of animals used in BARDA-funded studies, the Contractor must provide the CO and the COR copies of documents related to all major changes in the status of ongoing protocols, including the following:

- All amendments or changes to the protocol, identified by protocol version number, date, or both and date it is valid.
- All material changes in IACUC policies and procedures, identified by version number, date, and all required signatories (if applicable).
- Termination or temporary suspension of the study(ies) for regulatory issues.
- Termination or temporary suspension of the protocol.
- Any change that is made in the specific IACUC approval for the indicated study(ies).
- Any other problems or issues that could affect the scientific integrity of the study(ies), i.e., fraud, misrepresentation, misappropriation of funds, etc.

Contractor must notify the CO and the COR of any of the above changes within [**] working days from the time the Contractor becomes aware of such changes by email or fax, followed by a letter signed by the institutional business official, detailing notification of the change of status to the local IACUC and a copy of any responses from the IACUC.

If a non-clinical protocol has been reviewed by an institutional biosafety committee (IBC) or the NIH Recombinant DNA Advisory Committee (RAC), the Contractor must provide information about the initial and ongoing review and approval, if any. See the NIH Guidelines for Research Involving Recombinant DNA Molecules.

ii. Non-Clinical Data and Safety Monitoring Requirements

BARDA strongly recommends continued safety monitoring for all non- clinical studies of investigational drugs, devices, or biologics. FDA expects non-clinical studies to include safety in addition to efficacy. The Contractor should consider

evaluation of clinical relevant safety markers in the pivotal and non-pivotal, non-clinical studies. In preparation for clinical trials of licensed or not yet licensed products, it is imperative that BARDA- sponsored studies of any type measure the risk and safety parameters that are elicited and provide a safety profile from the studies for future human risk assessment.

A risk is minimal where the probability and magnitude of harm or discomfort anticipated in the proposed research are not greater than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. For example, the risk of drawing a small amount of blood from a healthy subject for research purposes is no greater than the risk of doing so as part of a routine physical examination (45 CFR 46.102(i)).

BARDA will work with the Contractor on decisions regarding the type and extent of safety data accrual to be employed before the start of efficacy or safety studies.

The Contractor shall inform the CO and COR of any upcoming site visits and/or audits of CRO facilities funded under this effort. The CO and the COR reserve the right to accompany the Contractor on site visits and/or audits of CRO's as the CO and the COR deem necessary.

b. BARDA Review Process before Non-Clinical study Execution Begins

BARDA is under the same policy-driven assurances as NIH in that it has a responsibility to ensure that mechanisms and procedures are in place to protect the safety and welfare of animals used in BARDA-funded non-clinical trials. Therefore, before study execution, the Contractor must provide the following (as applicable) for review and comment by the Government.

- IACUC approved (signed) non-clinical research protocol identified by version number, date, or both, including details of study design, euthanasia criteria, proposed interventions, and exclusion criteria.
- For non-pivotal mouse studies, the Contractor will provide an annual animal care and use protocol.
- Documentation of IACUC approval, including OLAW federal wide number, IACUC registration number, and IACUC name.
- Contractor should reduce the number of animals required for a study using power of statistics.
- Plans for the management of side effects, rules for interventions and euthanasia criteria.
- Procedures for assessing and collecting safety data were appropriate.
- If a study is contracted through Contract Research Organizations (CROs), work orders and service agreements the Contractor shall assure an integrated safety documentation plan is in place for the study site, pharmacy service records on the dosing material to be used and excipients, and laboratory services (including histopathology).

- Documentation that the Contractor and all required staff responsible for the conduct of the research have received training in the protection and handling of animals, or that the CRO has the required documentation.

- Purchasing of animals and/or other supplies for non-clinical studies funded in part or in whole by BARDA requires written approval by the Contracting Officer in accordance with the contract. The Contractor must have the ability to return/re-sell animals, at purchase price, to distributor or a third part, in the event that the Contracting Officer Authorization is not granted.

- Provide justification for whether studies require good laboratory practice (GLP) conditions.

- Provide justification for whether studies will be classified as non-pivotal or pivotal studies.

Documentation of each of the above items shall be submitted to the CO and the COR evaluation and comment in conjunction with the protocol. Execution of non- clinical studies requires written authorization from the Contracting Officer in accordance with this section of the contract.

c. References

Public Health Service Policy on Humane Care and Use of Laboratory Animals: http://

grants.nih.gov/grants/olaw/InvestigatorsNeed2Know.pdf
USDA Animal Welfare Act:

http://awic.nal.usda.gov/nal_display/index.php?info_center=3&tax_level=3&tax_subject=182&topic_id=1118&level3_id=6735&level4_id=0&level5_id=0&placement_default=0

2. Clinical Terms of Award

These Clinical Terms of Award detail an agreement between the Government and the Contractor; they apply to all grants and contracts that involve clinical research.

Draft protocols for each clinical study will be submitted to the CO and thje COR for evaluation and comment. CO/COR comments will be addressed and/or incorporated into the draft protocol prior to submission to the FDA for comment, if required.

BARDA shall have unlimited rights to all protocols, data generated from the execution of these protocols, and final reports, funded by BARDA under this contract, as defined in Rights in Data Clause in FAR 52.227-14, except that some portions of deliverables may contain proprietary or competitively sensitive Contractor information that can be redacted or abridged by Contractor for distribution outside of BARDA in accordance with section H.1 and H.20.b. BARDA reserves the right to request that the Contractor provide any contract deliverable in a redacted amd/or abridged format (as reasonably determined by Contractor) and without any restrictive legends to ensure BARDA has the ability to review and distribute the deliverables, as BARDA deems necessary.

a. Safety and Monitoring Issues

i. Institutional Review Board or Independent Ethics Committee Approval

Before award and then with the annual progress report, the Contractor must submit to the CO and COR a copy of the current IRB-or IEC-approved informed consent document, documentation of continuing review and approval and the OHRP federal wide assurance number for the institution or site.

If other institutions are involved in the research (e.g., a multicenter clinical trial or study), each institution's IRB or IEC must review and approve the protocol. They must also provide the CO and the COR initial and annual documentation of continuing review and approval, including the current approved informed consent document and federal wide number.

The Contractor must ensure that the application as well as all protocols are reviewed by their IRB or IEC.

To help ensure the safety of participants enrolled in BARDA-funded studies, the Contractor must provide the CO and the COR copies of documents related to all major changes in the status of ongoing protocols, including the following:

- All amendments or changes to the protocol, identified by protocol version number, date, or both and dates it is valid.
- All changes in informed consent documents, identified by version number, dates, or both and dates it is valid.
- Termination or temporary suspension of patient accrual.
- Termination or temporary suspension of the protocol.
- Any change in IRB approval.
- Any other problems or issues that could affect the participants in the studies.

The Contractor must notify BARDA through the COR and CO of any of the above changes within [**] working days by email or fax, followed by a letter signed by the institutional business official, detailing notification of the change of status to the local IRB and a copy of any responses from the IRB or IEC.

If a clinical protocol has been reviewed by an institutional biosafety committee (IBC) or the NIH Recombinant DNA Advisory Committee (RAC), the Contractor must provide information about the initial and ongoing review and approval, if any. See the NIH Guidelines for Research Involving Recombinant DNA Molecules.

ii. Data and Safety Monitoring Requirements

BARDA strongly recommends independent safety monitoring for clinical trials of investigational drugs, devices, or biologics; clinical trial of licensed products; and clinical research of any type involving more than minimal risk to volunteers. Independent monitoring can take a variety of forms. Phase III clinical trials must be reviewed by an independent data and safety monitoring board (DSMB); other trials may require DSMB oversight as well. The Contractor shall inform the CO and the COR of any upcoming site visits and/or audits of CRO facilities funded under this

effort. The CO and COR reserve the right to accompany the Contractor on site visits and/or audits of CROs as they deem necessary.

A risk is minimal where the probability and magnitude of harm or discomfort anticipated in the proposed research and not greater than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. For examples, the risk of drawing a small amount of blood from a healthy individual for research purposes is no greater than the risk of doing so as part of a routine physical examination (45 CFR 46.102l).

Final decisions regarding the type of monitoring to be used must be made jointly by the CO, the COR and the Contractor before enrollment starts. Discussions with the responsible BARDA Project Officer (COR) regarding appropriate safety monitoring and approval of the final monitoring plan by the CO and COR must occur before patient enrollment begins and may include discussions about the appointment of one of the following.

- **Independent Safety Monitor** – a physician or other appropriate expert who is independent of the study and available in real time to review and recommend appropriate action regarding adverse events and other safety issues.

- **Independent Monitoring Committee (IMC) or Safety Monitoring Committee (SMC)** – a small group of independent investigators and biostatisticians who review data from a particular study.

- **Data and Safety Monitoring Board** – an independent committee charged with reviewing safety and trial progress and providing advice with respect to study continuation, modification, and termination. The Contractor may be required to use an established BARDA DSMB or to organize an independent DSMB. All phase III clinical trials must be reviewed by a DSMB; other trials may require DSMB oversight as well. Please refer to: NIAID Principles for Use of a Data and Safety Monitoring Board (DSMB) For Oversight of Clinical Trials Policy

When a monitor or monitoring board is organized, a description of it, its charter or operating procedures (including a proposed meeting schedule and plan for review of adverse events), and roster and *curriculum vitae* from all members must be submitted to and approved by the CO and the COR before enrollment starts. The Contractor will also ensure that the monitors and board members report any conflicts of interest and the Contractor will maintain a record of this. The Contractor will share conflict of interest reports with BARDA. Additionally, the Contractor must submit written summaries of all reviews conducted by the monitoring group to the CO and the COR within [**] days of reviews or meetings.

iii. BARDA Protocol Review Process Before Patient Enrollment Begins

BARDA has a responsibility to ensure that mechanisms and procedures are in place to protect the safety of participants in BARDA-supported clinical trials. Therefore, before patient accrual or participant enrollment, the Contractor must ensure the following (as applicable) are in place at each participating institution, prior to patient accrual or enrollment:

- IRB- or IEC-approved clinical research protocol identified by version number, date, or both, including details of study design, proposed interventions, patient eligibility, and exclusion criteria.
- Documentation of IRB or IEC approval, including OHRP federal wide number, IRB or IEC registration number, and IRB and IEC name.
- IRB- or IEC- approved informed consent document, identified by version number, date, or both and dates it is valid.
- Plans for the management of side effects.
- Procedures for assessing and reporting adverse events.
- Plans for data and safety monitoring (see above) and monitoring of the clinical study site, pharmacy, and laboratory.
- Documentation that the Contractor and all study staff responsible for the design or conduct of the research have received training in the protection of human subjects.

Documentation to demonstrate that each of the above items are in place shall be submitted to the the CO and the COR for evaluation and comment in conjunction with the protocol. Execution of clinical studies requires written authorization from the CO and the COR in accordance with this section of this contract.

iv. Investigational New drug or Investigational Device Exemption Requirements

Consistent with federal regulations, clinical research projects involving the use of investigational therapeutics, vaccines, or other medical interventions (including licensed products and devices for a purpose other than that for which they were licensed) in humans under a research protocol must be performed under a Food and Drug Administration (FDA) investigational new drug (IND) or investigational device exemption (IDE).

Exceptions must be granted in writing by FDA. If the proposed clinical trial will be performed under an IND or IDE, the Contractor must provide the CO and the COR with the name and institution of the IND or IDE sponsor, the date the IND or IDE was filed with FDA, the FDA IND or IDE number, any written comments from FDA, and the written responses to those comments.

Unless FDA notifies Contractor otherwise, The Contractor must wait [**] calendar days from FDA receipt of an initial IND or IDE application before initiating a clinical trial.

The Contractor must notify the CO and the COR if the FDA places the study on clinical hold and provide the CO and the COR any written comments from FDA, written responses to the comments, and documentation in writing that the hold has been lifted. The Contractor must not use grant or contract funds during a clinical hold to fund clinical studies that are on hold. The Contractor must not enter into any new financial obligations related to clinical activities for the clinical trial on clinical hold.

v. Required Time-Sensitive Notification

Under an IND or IDE, the sponsor must provide FDA safety reports of serious adverse events. Under these Clinical Terms of Award, the Contractor must submit copies to the responsible Contracting Officer's Representative (COR) as follows:

i. Expedited safety report of unexpected or life-threatening experience or death:

A copy of any report of unexpected or life-threatening experience or death associated with the use of an IND drug, which must be reported to FDA by telephone or fax as soon as possible but no later than [**] days after the IND sponsor's receipt of the information, must be submitted to the COR within [**] of FDA notification.

ii. Expedited safety reports of serious and unexpected adverse experiences:

A copy of any report of unexpected and serious adverse experience associated with use of an IND drug or any finding from tests in laboratory animals that suggests a significant risk for human subjects, which must be reported in writing to FDA as soon as possible but no later than [**] day after the IND sponsor's receipt of the information, must be submitted to the COR within [**] of FDA notification.

iii. IDE reports of unanticipated adverse device effect:

A copy of any reports of unanticipated adverse device effect submitted to FDA must be submitted to the COR within [**] of FDA notification.

iv. Expedited safety reports:

Sent to the COR concurrently with the report to FDA.

v. Other adverse events documented during the course of the trial should be included in the annual IND or IDE report and reported to the CO and the COR annually.

In case of problems or issues, the Contracting Officer's Representative will contact the Contractor within [**] working days by email or fax, followed within [**] calendar days by an official letter to the Contractor's Project Manager, with a copy to the institutions' office of sponsored programs, listing issues and appropriate actions to be discussed.

vi. Safety reporting for research not performed under an IND or IDE.

Final decisions regarding ongoing safety reporting requirements for research not performed under an IND or IDE must be made jointly by the Contracting Officer's Representative and the Contractor.

ARTICLE H.2. PROTECTION OF HUMAN SUBJECTS, HHSAR 352.270-4(b) (January 2006)

The Contractor agrees that the rights and welfare of human subjects involved in research under this contract shall be protected in accordance with 45 CFR Part 46 and with the Contractor's confirmation that all institutions utilized during clinical investigations involving Human Subjects will have a current Assurance of Compliance on file with the Office for Human Research Protections (OHRP), Department of Health and Human Services. The Contractor further agrees to provide certification at least annually that the Institutional Review Board has reviewed and approved the procedures, which involve human subjects in accordance with 45 CFR Part 46 and the Assurance of Compliance.

The Contractor shall bear full responsibility for the performance of all work and services involving the use of human subjects under this contract and shall ensure that work is conducted in a proper

manner and as safely as is feasible. The parties hereto agree that the Contractor retains the right to control and direct the performance of all work under this contract. The Contractor shall not deem anything in this contract to constitute the Contractor or any subcontractor, agent or employee of the Contractor, or any other person, organization, institution, or group of any kind whatsoever, as the agent or employee of the USG. The Contractor agrees that it has entered into this contract and will discharge its obligations, duties, and undertakings and the work pursuant thereto, whether requiring professional judgment or otherwise, as an independent contractor without imputing liability on the part of the USG for the acts of the Contractor or its employees.

If at any time during the performance of this contract, the Contracting Officer determines, in consultation with OHRP that the Contractor is not in compliance with any of the requirements and/or standards stated in paragraphs (a) and (b) above, the Contracting Officer may immediately suspend, in whole or in part, work and further payments under this contract until the Contractor corrects the noncompliance. The Contracting Officer may communicate the notice of suspension by telephone with confirmation in writing. If the Contractor fails to complete corrective action within the period of time designated in the Contracting Officer's written notice of suspension, the Contracting Officer may, after consultation with OHRP, terminate this contract in whole or in part, and the Contractor's name may be removed from the list of those contractors with approved Human Subject Assurances.

ARTICLE H.3. HUMAN MATERIALS (ASSURANCE OF OHRP COMPLIANCE)

The acquisition and supply of all human specimen material (including fetal material) used under this contract shall be obtained by the Contractor in full compliance with applicable Federal, State and Local laws and the provisions of the Uniform Anatomical Gift Act in the United States, and no undue inducements, monetary or otherwise, will be offered to any person to influence their donation of human material.

The Contractor shall provide written documentation that all human materials obtained as a result of research involving human subjects conducted under this contract, by collaborating sites, or by subcontractors identified under this contract, were obtained with prior approval by the Office for Human Research Protections (OHRP) of an Assurance to comply with the requirements of 45 CFR 46 to protect human research subjects. This restriction applies to all collaborating sites without OHRP- approved Assurances, whether domestic or foreign, and compliance must be ensured by the Contractor.

Provision by the Contractor to the Contracting Officer of a properly completed "Protection of Human Subjects Assurance Identification/IRB Certification/Declaration of Exemption", Form OMB No. 0990-0263(formerly Optional Form 310), certifying IRB review and approval of the protocol from which the human materials were obtained constitutes the written documentation required. The human subject certification can be met by submission of a self-designated form provided that it contains the information required by the "Protection of Human Subjects Assurance Identification/IRB Certification/Declaration of Exemption", Form OMB No. 0990-0263 (formerly Optional Form 310).

ARTICLE H.4. RESEARCH INVOLVING HUMAN FETAL TISSUE

All research involving human fetal tissue shall be conducted in accordance with the Public Health Service Act, 42 U.S.C. 289g-1 and 289g-2. Implementing regulations and guidance for conducting research on human fetal tissue may be found at 45 CFR 46, Subpart B and http://grants1.nih.gov/grants/guide/notice-files/not93-235.html and any subsequent revisions to the NIH Guide to Grants and Contracts ("Guide") Notice.

The Contractor shall make available, for audit by the Secretary, HHS, the physician statements and informed consents required by 42 USC 289g-1(b) and (c), or ensure HHS access to those records, if maintained by an entity other than the Contractor.

ARTICLE H.5. CARE OF LIVE VERTEBRATE ANIMALS, HHSAR 352.270-5 (October 2009)

a. Before undertaking performance of any contract involving animal-related activities where the species is regulated by USDA, the Contractor shall register with the Secretary of Agriculture of the United States in accordance with 7 U.S.C. 2136 and 9 CFR sections 2.25 through 2.28. The Contractor shall furnish evidence of the registration to the Contracting Officer.

b. The Contractor shall acquire vertebrate animals used in research from a dealer licensed by the Secretary of Agriculture under 7 U.S.C. 2133 and 9 CFR Sections 2.1-2.11, or from a source that is exempt from licensing under those sections.

c. The Contractor agrees that the care, use and intended use of any live vertebrate animals in the performance of this contract shall conform with the Public Health Service (PHS) Policy on Humane Care of Use of Laboratory Animals (PHS Policy), the current Animal Welfare Assurance (Assurance), the Guide for the Care and Use of Laboratory Animals (National Academy Press, Washington, DC) and the pertinent laws and regulations of the United States Department of Agriculture (see 7 U.S.C. 2131 et seq. and 9 CFR Subchapter A, Parts 1-4). In case of conflict between standards, the more stringent standard shall govern.

d. If at any time during performance of this contract, the Contracting Officer determines, in consultation with the Office of Laboratory Animal Welfare (OLAW), National Institutes of Health (NIH), that the Contractor is not in compliance with any of the requirements and standards stated in paragraphs (a) through (c) above, the Contracting Officer may immediately suspend, in whole or in part, work and further payments under this contract until the Contractor corrects the noncompliance. Notice of the suspension may be communicated by telephone and confirmed in writing. If the Contractor fails to complete corrective action within the period of time designated in the Contracting Officer's written notice of suspension, the Contracting Officer may, in consultation with OLAW, NIH, terminate this contract in whole or in part, and the Contractor's name may be removed from the list of those contractors with approved Assurances.

Note: The Contractor may request registration of its facility and a current listing of licensed dealers from the Regional Office of the Animal and Plant Health Inspection Service (APHIS), USDA, for the region in which its research facility is located. The location of the appropriate APHIS Regional Office, as well as information concerning this program may be obtained by contacting the Animal Care Staff, USDA/APHIS, 4700 River Road, Riverdale, Maryland 20737 (E-mail: ace@aphis.usda.gov; W eb site: (http://www.aphis.usda.gov/animal_welfare).

ARTICLE H.6. ANIMAL WELFARE

All research involving live, vertebrate animals shall be conducted in accordance with the Public Health Service Policy on Humane Care and Use of Laboratory Animals. This policy may be accessed at: http://grants1.nih.gov/grants/olaw/references/phspol.htm

ARTICLE H.7. INFORMATION ON COMPLIANCE WITH ANIMAL CARE REQUIREMENTS

Registration with the U. S. Dept. of Agriculture (USDA) is required to use regulated species of animals for biomedical purposes. USDA is responsible for the enforcement of the Animal Welfare Act (7 U.S.C. 2131 et. seq.), http://www.nal.usda.gov/awic/legislat/awa.htm.

The Public Health Service (PHS) Policy is administered by the Office of Laboratory Animal Welfare (OLAW) http://grants2.nih.gov/grants/olaw/olaw.htm. An essential requirement of the PHS Policy http://grants2.nih.gov/grants/olaw/references/phspol.htm is that every institution using live vertebrate animals must obtain an approved assurance from OLAW before they can receive funding from any component of the U. S. Public Health Service.

The PHS Policy requires that Assured institutions base their programs of animal care and use on the Guide for the Care and Use of Laboratory Animals http://www.nap.edu/readingroom/books/labrats/ and that they comply with the regulations (9 CFR, Subchapter A)http://www.nal.usda.gov/awic/legislat/usdaleg1.htm issued by the U.S. Department of Agriculture (USDA) under the Animal Welfare Act. The Guide may differ from USDA regulations in some respects. Compliance with the USDA regulations is an absolute requirement of this Policy.

The Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC) http://www.aaalac.org is a professional organization that inspects and evaluates programs of animal care for institutions at their request. Those that meet the high standards are given the accredited status. As of the 2002 revision of the PHS Policy, the only accrediting body recognized by PHS is the AAALAC. While AAALAC Accreditation is not required to conduct biomedical research, it is highly desirable. AAALAC uses the Guide as their primary evaluation tool. They also use the Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching. It is published by the Federated of Animal Science Societies http://www.fass.org.

ARTICLE H.8. REQUIREMENTS FOR ADEQUATE ASSURANCE OF PROTECTION OF VERTEBRATE ANIMAL SUBJECTS

The PHS Policy on Humane Care and Use of Laboratory Animals requires that applicant organizations proposing to use vertebrate animals file a written Animal Welfare Assurance with the Office for Laboratory Animal Welfare (OLAW), establishing appropriate policies and procedures to ensure the humane care and use of live vertebrate animals involved in research activities supported by the PHS. The PHS Policy stipulates that an applicant organization, whether domestic or foreign, bears responsibility for the humane care and use of animals in PHS-supported research activities. Also, the PHS policy defines “animal” as “any live, vertebrate animal used, or intended for use, in research, research training, experimentation, biological testing or for related purposes.” This Policy implements and supplements the U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training, and requires that institutions use the Guide for the Care and Use of Laboratory Animals as a basis for developing and implementing an institutional animal care and use program. This Policy does not affect applicable State or local laws or regulations that impose more stringent standards for the care and use of laboratory animals. All institutions are required to comply, as applicable, with the Animal Welfare Act as amended (7 USC 2131 et. seq.) and other Federal statutes and regulations relating to animals. These documents are available from the Office of Laboratory Animal Welfare, National Institutes of Health, Bethesda, MD 20892, (301) 496-7163. See http://grants.nih.gov/grants/olaw/olaw.htm.

No PHS supported work for research involving vertebrate animals will be conducted by an organization, unless that organization is operating in accordance with an approved Animal Welfare Assurance and provides verification that the Institutional Animal Care and Use Committee (IACUC) has reviewed and approved the proposed activity in accordance with the PHS policy. Applications may be referred by the PHS back to the institution for further review in the case of apparent or potential s of the PHS Policy. No award to an individual will be made unless that individual is affiliated with an assured organization that accepts responsibility for compliance with the PHS Policy. Foreign applicant organizations applying for PHS awards for

activities involving vertebrate animals are required to comply with PHS Policy or provide evidence that acceptable standards for the humane care and use of animals will be met. Foreign applicant organizations are not required to submit IACUC approval, but should provide information that is satisfactory to the USG to provide assurances for the humane care of such animals.

ARTICLE H.9. APPROVAL OF REQUIRED ASSURANCE BY OLAW

Under governing regulations, federal funds which are administered by the Department of Health and Human Services, Office of Biomedical Advanced Research and Development Authority (BARDA) shall not be expended by the Contractor for research involving live vertebrate animals, nor shall live vertebrate animals be involved in research activities by the Contractor under this award unless a satisfactory assurance of compliance with 7 U.S.C. 2316 and 9 CFR Sections 2.25-2.28 is submitted within 30 days of the date of this award and approved by the Office of Laboratory Animal Welfare (OLAW). Each performance site (if any) must also assure compliance with 7 U.S.C. 2316 and 9 CFR Sections 2.25-2.28 with the following restriction: Only activities which do not directly involve live vertebrate animals (i.e. are clearly severable and independent from those activities that do involve live vertebrate animals) may be conducted by the Contractor or individual performance sites pending OLAW approval of their respective assurance of compliance with 7 U.S.C. 2316 and 9 CFR Sections 2.25-2.28. Additional information regarding OLAW may be obtained via the Internet at http://grants2.nih.gov/grants/olaw/references/phspol.htm

ARTICLE H.10. REPORTING MATTERS INVOLVING FRAUD, WASTE AND ABUSE

Anyone who becomes aware of the existence or apparent existence of fraud, waste and abuse in BARDA funded programs should report such matters to the HHS Inspector General's Office in writing or on the Inspector General's Hotline. The toll free number is 1-800-HHS-TIPS (1-800-447-8477). All telephone calls will be handled confidentially. The e-mail address is Htips@os.dhhs.gov and the mailing address is:

Office of Inspector General
Department of Health and Human Services
TIPS HOTLINE
P.O. Box 23489 Washington, D.C. 20026

ARTICLE H.11. PROHIBITION ON CONTRACTOR INVOLVEMENT WITH TERRORIST ACTIVITIES

The Contractor acknowledges that U.S. Executive Orders and Laws, including but not limited to E.O. 13224 and P.L. 107-56, prohibit transactions with, and the provision of resources and support to, individuals and organizations associated with terrorism. It is the legal responsibility of the Contractor to ensure compliance with these Executive Orders and Laws. This clause must be included in all subcontracts issued under this contract.

ARTICLE H.12. IDENTIFICATION AND DISPOSITION OF DATA

The Contractor will be required to provide certain data generated under this contract to the Department of Health and Human Services (DHHS). DHHS reserves the right to review any other data determined by DHHS to be relevant to this contract. The Contractor shall keep copies of all data required by the Food and Drug Administration (FDA) relevant to this contract for the time specified by the FDA.

ARTICLE H.13. EXPORT CONTROL NOTIFICATION

Contractors are responsible for ensuring compliance with all export control laws and regulations that may be applicable to the export of and foreign access to their proposed technologies. Contractors may consult with the Department of State with any questions regarding the International Traffic in Arms Regulation (ITAR) (22 CFR Parts 120-130) and /or the Department of Commerce regarding the Export Administration Regulations (15 CFR Parts 730-774).

ARTICLE H.14. CONFLICT OF INTEREST

The Contractor represents and warrants that, to the best of the Contractor's knowledge and belief, there are no relevant facts or circumstances which could give rise to an organizational conflict of interest, as defined in FAR 2.101 and Subpart 9.5, or that the Contractor has disclosed all such relevant information. Prior to commencement of any work, the Contractor agrees to notify the Contracting Officer promptly that, to the best of its knowledge and belief, no actual or potential conflict of interest exists or to identify to the Contracting Officer any actual or potential conflict of interest the firm may have. In emergency situations, however, work may begin but notification shall be made within [**] working days. The Contractor agrees that if an actual or potential organizational conflict of interest is identified during performance, the Contractor shall promptly make a full disclosure in writing to the Contracting Officer. This disclosure shall include a description of actions which the Contractor has taken or proposes to take, after consultation with the Contracting Officer, to avoid, mitigate, or neutralize the actual or potential conflict of interest. The Contractor shall continue performance until notified by the Contracting Officer of any contrary action to be taken. Remedies include termination of this contract for convenience, in whole or in part, if the Contracting Officer deems such termination necessary to avoid an organizational conflict of interest. If the Contractor was aware of a potential organizational conflict of interest prior to award or discovered an actual or potential conflict after award and did not disclose it or misrepresented relevant information to the Contracting Officer, the USG may terminate the contract for default, debar the Contractor from USG contracting, or pursue such other remedies as may be permitted by law or this contract.

ARTICLE H.15. INSTITUTIONAL RESPONSIBILITY REGARDING INVESTIGATOR FINANCIAL CONFLICTS OF INTEREST

The Contractor shall comply with the requirements of 45 CFR Part 94, Responsible Prospective Contractors, which promotes objectivity in research by establishing standards to ensure that Investigators (defined as the project director or principal Investigator and any other person, regardless of title or position, who is responsible for the design, conduct, or reporting of research funded under BARDA contracts, or proposed for such funding, which may include, for example, collaborators or consultants) will not be biased by any Investigator financial conflicts of interest.

If the failure of an Investigator to comply with an Institution's financial conflicts of interest policy or a financial conflict of interest management plan appears to have biased the design, conduct, or reporting of the BARDA-funded research, the Contractor must promptly notify the Contracting Officer of the corrective action taken or to be taken. The Contracting Officer will consider the situation and, as necessary, take appropriate action or refer the matter to the Contractor for further action, which may include directions to the Contractor on how to maintain appropriate objectivity in the BARDA-funded research project.

The Contracting Officer and/or HHS may inquire at any time before, during, or after award into any Investigator disclosure of financial interests, and the Contractor’s review of, and response to, such disclosure, regardless of whether the disclosure resulted in the Contractor’s determination of a financial conflict of interests. The Contracting Officer may require submission of the records or review them on site. On the basis of this review of records or other information that may be

available, the Contracting Officer may decide that a particular financial conflict of interest will bias the objectivity of the BARDA-funded research to such an extent that further corrective action is needed or that the Institution has not managed the financial conflict of interest in accordance with 45 CFR Part 94. The issuance of a Stop Work Order by the Contracting Officer may be necessary until the matter is resolved.

If the Contracting Officer determines that BARDA-funded clinical research, whose purpose is to evaluate the safety or effectiveness of a drug, medical device, or treatment, has been designed, conducted, or reported by an Investigator with a financial conflict of interest that was not disclosed managed or reported the Contractor shall require the Investigator involved to disclose the financial conflict of interest in each public presentation of the results of the research and to request an addendum to previously published presentations.

ARTICLE H.16. NEEDLE DISTRIBUTION

The Contractor shall not use contract funds to carry out any program of distributing sterile needles or syringes for the hypodermic injection of any illegal drug.

ARTICLE H.17. RESTRICTION ON ABORTIONS

The Contractor shall not use contract funds for any abortion.

ARTICLE H.18. CONTINUED BAN ON FUNDING OF HUMAN EMBRYO RESEARCH

The Contractor shall not use contract funds for (1) the creation of a human embryo or embryos for research purposes; or (2) research in which a human embryo or embryos are destroyed, discarded, or knowingly subjected to risk of injury or death greater than that allowed for research on fetuses in utero under 45 CFR 46.204(b) and Section 498(b) of the Public Health Service Act (42 U.S.C. 289g(b)). The term "human embryo or embryos" includes any organism, not protected as a human subject under 45 CFR 46 as of the date of the enactment of this Act, that is derived by fertilization, parthenogenesis, cloning, or any other means from one or more human gametes or human diploid cells.

Additionally, in accordance with a March 4, 1997 Presidential Memorandum, Federal funds may not be used for cloning of human beings.

ARTICLE H.19. DISSEMINATION OF FALSE OR DELIBERATELY MISLEADING INFORMATION

The Contractor shall not use contract funds to disseminate information that is deliberately false or misleading.

ARTICLE H.20. ACCESS TO DOCUMENTATION/DATA

The USG shall have physical and electronic access to all documentation and data generated under this contract, including: all data documenting Contractor performance; all data generated; all communications and correspondence with regulatory agencies and bodies to include all audit observations, inspection reports, milestone completion documents, and all Offeror commitments and responses. Contractor shall provide the USG with an electronic copy of all correspondence and submissions to the FDA within [**] business days of receipt. The USG shall acquire unlimited rights to all data funded under this contract in accordance with FAR Subpart 27.4 and FAR Clause 52.227-14.

ARTICLE H.21. EPA ENERGY STAR REQUIREMENTS

In compliance with Executive Order 12845 (requiring Agencies to purchase energy efficient computer equipment), all microcomputers, including personal computers, monitors, and printers that are purchased using USG funds in performance of a contract shall be equipped with or meet the energy efficient low-power standby feature as defined by the EPA Energy Star program unless the equipment always meets EPA Energy Star efficiency levels. The microcomputer, as configured with all components, must be Energy Star compliant.

This low-power feature must already be activated when the computer equipment is delivered to the agency and be of equivalent functionality of similar power managed models. If the equipment will be used on a local area network, the vendor must provide equipment that is fully compatible with the network environment. In addition, the equipment will run commercial off-the-shelf software both before and after recovery from its energy conservation mode.

ARTICLE H.22. ACKNOWLEDGMENT OF FEDERAL FUNDING

Section 507 of P.L. 104-208 mandates that Contractors funded with Federal dollars, in whole or in part, acknowledge Federal funding when issuing statements, press releases, requests for proposals, bid solicitations and other documents. This requirement is in addition to the continuing requirement to provide an acknowledgment of support and disclaimer on any publication reporting the results of a contract funded activity.

Publication and Publicity

No information related to data obtained under this contract shall be released or publicized without providing the CO and COR with at least [**] days advanced notice and an opportunity to review the proposed release or publication.

In addition to the requirements set forth in HHSAR Clause 352.227-70, Publications and Publicity incorporated by reference in SECTION I of this contract, Section 507 of P.L. 104-208 mandates that Contractors funded with Federal dollars, in whole or in part, acknowledge Federal funding when issuing statements, press releases, requests for proposals, bid solicitations and other documents. Contractors are required to state:
(1) the percentage and dollar amounts of the total program or project costs financed with Federal money and; (2) the percentage and dollar amount of the total costs financed by nongovernmental sources. For purposes of this contract "publication" is defined as an issue of printed material offered for distribution or any communication or oral presentation of information, including any manuscript or scientific meeting abstract. Any publication containing data generated under this contract must be submitted for CO/COR review no less than [**] calendar days for manuscripts and [**] calendar days for abstracts before submission for public presentation or publication. Contract support shall be acknowledged in all such publications substantially as follows:

"This project has been funded in whole or in part with Federal funds from the Department of Health and Human Services; Office of the Assistant Secretary for Preparedness and Response; Biomedical Advanced Research and Development Authority, under Contract No. HHSO100201700014C."

A. Press Releases

Misrepresenting contract results or releasing information that is injurious to the integrity of the Government may be construed as improper conduct. Press releases shall be considered to include the public release of information to any medium, excluding peer-reviewed scientific publications. With the exception of ad-hoc press releases required by applicable law or

regulations, the Contractor shall ensure that the COR has received an advance copy of any press release related to the contract not less than [**] business days prior to the issuance of the press release.

The Contractor shall acknowledge the support of the Department of Health and Human Service, Office of the Assistant Secretary for Preparedness and Response, Biomedical Advanced Research and Development Authority, whenever publicizing the work under this contract in any media by including an acknowledgment substantially as follows:

"This project has been funded in whole or in part with Federal funds from the Department of Health and Human Services; Office of the Assistant Secretary for Preparedness and Response; Biomedical Advanced Research and Development Authority, under Contract No. HHSO100201700014C."

ARTICLE H.23. PROHIBITION ON THE USE OF APPROPRIATED FUNDS FOR LOBBYING ACTIVITIES AND HHSAR 352.203-70 ANTI-LOBBYING (January 2006)

The Contractor is hereby notified of the restrictions on the use of Department of Health and Human Service's funding for lobbying of Federal, State and Local legislative bodies.

Section 1352 of Title 10, United States Code (Public Law 101-121, effective 12/23/89), among other things, prohibits a recipient (and their subcontractors) of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds (other than profits from a federal contract) to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions; the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement. For additional information of prohibitions against lobbying activities, see FAR Subpart 3.8 and FAR Clause 52.203-12.

In addition, as set forth in HHSAR 352.203-70 “Anti-Lobbying” (January 2006), the current Department of Health and Human Services Appropriations Act provides that no part of any appropriation contained in this Act shall be used, other than for normal and recognized executive-legislative relationships, for publicity or propaganda purposes, for the preparation, distribution, or use of any kit, pamphlet, booklet, publication, radio, television, or video presentation designed to support, or defeat legislation pending before the Congress, or any State or Local legislature except in presentation to the Congress, or any State or Local legislative body itself.

The current Department of Health and Human Services Appropriations Act also provides that no part of any appropriation contained in this Act shall be used to pay the salary or expenses of any contract or grant recipient, or agent acting for such recipient, related to any activity designed to influence legislation or appropriations pending before the Congress, or any State or Local legislature.

ARTICLE H.24. PRIVACY ACT APPLICABILITY

Notification is hereby given that the Contractor and its employees are subject to criminal penalties for violation of the Privacy Act to the same extent as employees of the USG. The Contractor shall assure that each of its employees knows the prescribed rules of conduct and that each is aware that he or she can be subjected to criminal penalty for violation of the Act. A copy of 45 CFR Part 5b, Privacy Act Regulations, may be obtained at http://www.gpoaccess.gov/cfr/index.html

The Project Officer is hereby designated as the official who is responsible for monitoring contractor compliance with the Privacy Act.

The Contractor shall follow the Privacy Act guidance as contained in the Privacy Act System of Records number 09-25-0200. This document may be obtained at the following link: http://oma.od.nih.gov/ms/privacy/pa-files/0200.htm

ARTICLE H.25. LABORATORY LICENSE REQUIREMENTS

The Contractor shall comply with all applicable requirements of Section 353 of the Public Health Service Act (Clinical Laboratory Improvement Act as amended) (42 U.S.C. 263a and 42 CFR Part 493). This requirement shall also be included in any subcontract for services under the contract.

ARTICLE H.26. QUALITY ASSURANCE (QA) AUDIT REPORTS

BARDA reserves the right to participate in QA audits. Upon completion of the audit/site visit the Contractor shall provide a report capturing the findings, results and next steps in proceeding with the subcontractor. If action is requested of the subcontractor, detailed concerns for addressing areas of non-conformance to FDA regulations for GLP, GMP, or GCP guidelines, as identified in the audit report, must be provided to the CO and COR. The Contractor shall provide responses from the subcontractors to address these concerns and plans for corrective action execution.

- Contractor shall notify CO and COR of upcoming, ongoing, or recent audits/site visits of subcontractors as part of weekly communications.
- Contractor shall notify the COR and CO within [**] business days of report completion.

ARTICLE H.27. BARDA AUDITS

Contractor shall accommodate periodic or ad hoc site visits by the USG with [**] advance notice. If the USG, the Contractor, or other parties identifies any issues during an audit, the Contractor shall capture the issues, identify potential solutions, and provide a report to the USG.

- If issues are identified during the audit, Contractor shall submit a report to the CO and COR detailing the finding and corrective action(s) within [**] business days of the audit.
- COR and CO will review the report and provide a response to the Contractor with [**] business days.
- Once corrective action is completed, the Contractor will provide a final report to the CO and COR.

ARTICLE H.28. RESTRICTION ON EMPLOYMENT OF UNAUTHORIZED ALIEN WORKERS

The Contractor shall not use contract funds to employ workers described in section 274A (h)(3) of the Immigration and National Act, which reads as follows:

“(3) Definition of unauthorized alien – As used in this section, the term ‘unauthorized alien’ with respect to the employment of an alien at a particular time, that the alien is not at that time either an alien lawfully admitted for permanent residence, or (B) authorized to be so employed by this Act or by the Attorney General.”

ARTICLE H.29. NOTIFICATION OF CRITICAL PROGRAMMATIC CONCERNS, RISKS, OR POTENTIAL RISKS

If any action occurs that creates a cause for critical programmatic concern, risk, or potential risk to BARDA or the Contractor and Incident Report shall be delivered to the CO and the COR.

- Within [**] of activity or incident or within [**] for a security related activity or incident, Contractor must notify BARDA through the CO and COR.
- Additional updates due to COR and CO within [**] of additional developments.
- Contractor shall submit within [**] business days a Corrective Action Plan (if deemed necessary by either party) to address any potential issues.

If corrective action is reasonably deemed necessary by the CO and COR, Contractor must address in writing, its consideration of concerns raised in writing by the CO and COR within [**] business days.

ARTICLE H.30. PERSON IN PLANT

With [**] business days advance notice to the Contractor in writing from the Contracting Officer, the USG may place a person-in-plant in the Contractor's or subcontractor's facility, who shall be subject to the Contractor's or subcontractor's policies and procedures regarding security and facility access at all times while in the facility.

An article substantially similar to this Person-in-Plant article shall be incorporated into any subcontract for experimental or manufacturing work.

ARTICLE H.31. PROTECTION OF PERSONNEL WHO WORK WITH NONHUMAN PRIMATES

All Contractor personnel who work with nonhuman primates or enter rooms or areas containing nonhuman primates shall comply with the procedures set forth in NIH Policy Manual 3044-2, entitled, "Protection of NIH Personnel Who Work with Nonhuman Primates," located at the following URL: http://www1.od.nih.gov/oma/manualchapters/intramural/3044-2/

ARTICLE H.32. DISSEMINATION OF INFORMATION (May 1998)

Other than scientific and technical articles for which the contractor can assert a copyright under FAR Clause 52.227-14 (c),or subject to applicable laws or market regulations, no information related to data obtained under this contract shall be released or publicized without the prior written consent of the Contracting Officer. In the event that the Contractor seeks to publicize data through a scientific or technical article, the Contractor shall provide the CO and COR, with a minimum of [**] business days to review the article prior to publication.

ARTICLE H.33. REGISTRATION WITH THE SELECT AGENT PROGRAM FOR WORK INVOLVING THE POSSESSION, USE, AND/OR TRANSFER OF SELECT BIOLOGICAL AGENTS OR TOXINS

Work involving select biological agents or toxins shall not be conducted under this contract until the Contractor and any affected subcontractor(s) are granted a certificate of registration or are authorized to work with the applicable select agents.

For prime or subcontract awards to domestic institutions who possess, use, and/or transfer Select Agents under this contract, the institution must complete registration with the Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (DHHS) or the Animal and Plant Health Inspection Services (APHIS), U.S. Department of Agriculture (USDA), as applicable, before performing work involving Select Agents, in accordance with 42 CFR 73. No Government funds can be used for work involving Select Agents, as defined in 42 CFR 73, if the final registration certificate is denied.

For prime or subcontract awards to foreign institutions who possess, use, and/or transfer Select Agents under this contract, the institution must provide information satisfactory to the Government that a process equivalent to that described in 42 CFR 73 (http://www.cdc.gov/od/sap/docs/42cfr73.pdf) for U.S. institutions is in place and will be administered on behalf of all Select Agent work sponsored by these funds before using these funds for any work directly involving the Select Agents. The Contractor must provide information addressing the following key elements appropriate for the foreign institution: safety, security, training, procedures for ensuring that only approved/appropriate individuals have access to the Select Agents, and any applicable laws, regulations and policies equivalent to 42 CFR 73. The Government will assess the policies and procedures for comparability to the U.S. requirements described in 42 CFR Part 73. When requested by the contracting officer, the Contractor shall provide key information delineating any laws, regulations, policies, and procedures applicable to the foreign institution for the safe and secure possession, use, and transfer of Select Agents. This includes summaries of safety, security, and training plans, and applicable laws, regulations, and policies. For the purpose of security risk assessments, the Contractor must provide the names of all individuals at the foreign institution who will have access to the Select Agents and procedures for ensuring that only approved and appropriate individuals have access to Select Agents under the contract. Listings of HHS select agents and toxins, biologic agents and toxins, and overlap agents or toxins as well as information about the registration process, can be obtained on the Select Agent Program Web site at http://www.cdc.gov/od/sap/.

ARTICLE H.34. MANUFACTURING STANDARDS

The Good Manufacturing Practice Regulations (GMP)(21 CFR Parts 210-211) will be the standard to be applied for manufacturing, processing, packaging, storage and delivery of this product.

If at any time during the life of the contract, the Contractor fails to comply with GMP in the manufacturing, processing, packaging, storage, stability and other testing of the manufactured drug substance or product and delivery of this product and such failure results in a material adverse effect on the safety, purity or potency of the product (a material failure) as identified by the FDA, the Contractor shall have [**] calendar days from the time such material failure is identified to cure such material failure. If, within the [**] calendar day period, the Contractor fails to take such an action to the satisfaction of the USG Project Officer, or fails to provide a remediation plan that is acceptable to the COR, then the contract may be terminated.

ARTICLE H.35. IN-PROCESS REVIEW

In Process Reviews (IPR) will be conducted at the discretion of the USG to discuss the progression of the milestones. The USG reserves the right to revise the milestones and budget pending the development of the project. Deliverables such as an overall project summary report and/or slides will be required when the IPRs are conducted. The Contractor's success in completing the required tasks under each work segment must be demonstrated through the Deliverables and Milestones specified under SECTION F. Those deliverables will constitute the basis for the USG's decision, at its sole discretion, to proceed with the work segment, or institute changes to the work segment, or terminate the work segment.

IPRs may be scheduled at the discretion of the USG to discuss progression of the contract. The Contractor shall provide a presentation following a prescribed template which will be provided by the USG at least [**] business days prior to the IPR. Subsequently, the contractor will be requested to provide a revised/final presentation to the Contracting Officer at least [**] business days prior to the IPR.

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

ARTICLE I.1. FAR 52.252-2, CLAUSES INCORPORATED BY REFERENCE (FEBRUARY 1998)

This contract incorporates the following clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at: https://www.acquisition.gov/

General Clauses for Cost-Reimbursement Research and Development Contract

a. FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1) CLAUSES:

FAR CLAUSE #	DATE	TITLE
52.202-1	Nov 2013	Definitions
52.203-3	Apr 1984	Gratuities
52.203-5	May 2014	Covenant Against Contingent Fees
52.203-6	Sep 2006	Restrictions on Subcontractor Sales to the Government
52.203-7	May 2014	Anti-Kickback Procedures
52.203-8	May 2014	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity
52.203-10	May 2014	Price or Fee Adjustment for Illegal or Improper Activity
52.203-12	Oct 2010	Limitation on Payments to Influence Certain Federal Transactions (Over $150,000)
52.203-13	Oct 2015	Contractor Code of Business Ethics and Conduct
52.203-14	Oct 2015	Display of Hotline Poster(s)
52,203-17	Apr 2014	Contractor Employee Whistlelower Rights and Requirement to Inform Employees of Whistleblower rights
52.204-4	May 2011	Printed or Copied Double-Sided on Recycled Paper
52.204-7	Oct 2016	System for Award Management
52.204-10	Oct 2016	Reporting Executive Compensation and First-Tier Subcontract Awards
52.204-13	Oct 2016	System for Award Management Maintenance
52.209-6	Oct 2015	Protecting the Government's Interests When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment
52.209-9	Jul 2013	Updates of Publicly Available Information Regarding Responsibility Matters
52.209-10	Nov 2015	Prohibition on Contracting With Inverted Domestic Corporations
52.210-1	Apr 2011	Market Research
52.215-2	Oct 2010	Audit and Records – Negotiation
52.215-8	Oct 1997	Order of Precedence - Uniform Contract Format
52.215-10	Aug 2011	Price Reduction for Defective Cost or Pricing Data (Over $700,000)
52.215-12	Oct 2010	Subcontractor Cost or Pricing Data (Over $700,000)
52.215-15	Oct 2010	Pension Adjustments and Asset Reversions

FAR CLAUSE #	DATE	TITLE
52.215-17	Oct 1997	Waiver of Facilities Capital Cost of Money
52.215-18	Jul 2005	Reversion or Adjustment of Plans for Post-Retirement Benefits (PRB) other than Pensions
52.215-19	Oct 1997	Notification of Ownership Changes
52.215-21	Oct 2010	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data - Modifications
52.215-23	Oct 2009	Limitations on Pass-Through Charges
52.216-7	Jun 2013	Allowable Cost and Payment
52.216-12	Apr 1984	Cost Sharing Contract – no fee
52.219-8	Nov 2016	Utilization of Small Business Concerns
52.222-2	Jul 1990	Payment for Overtime Premiums
52.222-3	Jun 2003	Convict Labor
52.222-21	Apr 2015	Prohibition of Segregated Facilities
52.222-26	Sep 2016	Equal Opportunity
52.222-35	Oct 2015	Equal Opportunity Veterans
52.222-36	Jul 2014	Affirmative Action for Workers with Disabilities
52.222-37	Feb 2016	Employment Reports on Veterans
52.222-40	Dec 2010	Notification of Employee Rights Under the National Labor Relations Act
52.222-50	Mar 2015	Combating Trafficking in Persons Alternate I
52.222-54	Oct 2015	Employment Eligibility Verification
52.223-18	Aug 2011	Encouraging Contractor Policy to Ban Text Messaging While Driving
52.224-1	April 1984	Privacy Act Notification
52.224-2	April 1984	Privacy Act
52.225-13	Jun 2008	Restrictions on Certain Foreign Purchases
52.227-1	Dec 2007	Authorization and Consent, Alternate I (Apr 1984)
52.227-2	Dec 2007	Notice and Assistance Regarding Patent and Copyright Infringement
52.227-3	Apr 1984	Patent Indemnity
52.227-11	May 2014	Patent Rights - Ownership by the Contractor The frequency of reporting in (i) is annual.
52.227-14	May 2014	Rights in Data-General

FAR CLAUSE #	DATE	TITLE
52.227-14 – Alternate II	Dec 2007	Rights in Data – General, Alternate II. Completed portion as follows: Limited Rights Notice (Dec 2007) (a) These data are submitted with limited rights under Government Contract No. HHSO100201700014C. These data may be reproduced and used by the Government with the express limitation that they will not, without written permission of the Contractor, be used for purposes of manufacture nor disclosed outside the Government; except that the Government may disclose these data outside the Government for the following purposes, provided that the Government makes such disclosure subject to prohibition against further use and disclosure: (i) Use (except for manufacture) by support service contractors. (ii) Evaluation by nongovernment evaluators. (b) This Notice shall be marked on any reproduction of these data, in whole or in part.
52.227-16	Jun 1987	Additional Data Requirements
52.229-8	Mar 1990	Taxes – Foreign Cost Reimbursement Contracts. Insert “Great Britain” in both blanks.
52.230-4	Oct 2015	Disclosure and Consistency of Cost Accounting Practices – Foreign Concerns
52.230-6	June 2010	Administration of Cost Accounting Standards
52.232-9	Apr 1984	Limitation on Withholding of Payments
52.232-17	May 2014	Interest
52.232-20	Apr 1984	Limitation of Cost
52.232-23	May 2014	Assignment of Claims
52.232-25	Jan 2017	Prompt Payment, Alternate I (Feb 2002)
52.232-33	July 2013	Payment by Electronic Funds Transfer—System for Award Management
52.233-1	May 2014	Disputes
52.233-3	Aug 1996	Protest After Award, Alternate I (Jun 1985)
52.233-4	Oct 2004	Applicable Law for Breach of Contract Claim
52.242-1	Apr 1984	Notice of Intent to Disallow Costs
52.242-3	May 2014	Penalties for Unallowable Costs
52.242-4	Jan 1997	Certification of Final Indirect Costs
52.242-13	Jul 1995	Bankruptcy
52.243-2	Aug 1987	Changes - Cost Reimbursement, Alternate V (Apr 1984)
52.244-2	Oct 2010	Subcontracts, Alternate I (June 2007)
52.244-5	Dec 1996	Competition in Subcontracting
52.244-6	Jan 2017	Subcontracts for Commercial Items
52.245-1	Jan 2017	Government Property, Alternate II (Jun 2007)
52.245-9	Apr 2012	Use and Charges
52.246-23	Feb 1997	Limitation of Liability
52.247-63	Jun 2003	Preference for U.S.-Flag Air Carriers
52.249-6	May 2004	Termination (Cost-Reimbursement)

FAR CLAUSE #	DATE	TITLE
52.249-14	Apr 1984	Excusable Delays
52.251-1	Apr 2012	Government Supply Sources
52.253-1	Jan 1991	Computer Generated Forms

b. DEPARTMENT OF HEALTH AND HUMAN SERVICES ACQUISITION REGULATION (HHSAR) (48 CFR CHAPTER 3) CLAUSES:

HHSAR CLAUSE NO.	DATE	TITLE
352.211-3	Dec 2015	Paperwork Reduction Act
352.203-70	Dec 2015	Anti-Lobbying
352.222-70	Dec 2015	Contractor Cooperation in Equal Employment Opportunity Investigations
352.223-70	Dec 2015	Safety and Health
352.224-70	Dec 2015	Privacy Act
352.227-70	Dec 2015	Publications and Publicity
352.231-70	Dec 2015	Salary Rate Limitation
352.233-71	Dec 2015	Litigation and Claims
352.237-75	Dec 2015	Key Personnel
352.270-4a	Dec 2015	Protection of Human Subjects
352.270-6	Dec 2015	Restriction on use of Human Subjects

ARTICLE I.2. ADDITIONAL FAR CONTRACT CLAUSES INCLUDED IN FULL TEXT

This contract incorporates the following clauses in full text.

FEDERAL ACQUISITION REGULATION (FAR) (48 CFR CHAPTER 1) CLAUSES:

a. FAR Clause 52.217-8, Option to Extend Services (Nov 1999)

The Government may require continued performance of any services within the limits and at the rates specified in the contract. These rates may be adjusted only as a result of revisions to prevailing labor rates provided by the Secretary of Labor. The option provision may be exercised more than once, but the total extension of performance hereunder shall not exceed 6 months. The Contracting Officer may exercise the option by written notice to the Contractor within 30 days of the end of the current performance period.

b. FAR Clause 52.217-9, Option to Extend the Term of the Contract (Mar 2000)

(a) The Government may extend the term of this contract by written notice to the Contractor within 30 days after the Government has completed its analysis of the deliverables associated with the applicable milestone. The Government will provide the Contractor a preliminary written notice of its intent to extend at least 30 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed 5 years.

c. FAR Clause 52.219-28, Post-Award Small Business Program Representation (April 2009).

(a) *Definitions* . As used in this clause--
Long-term contract means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-9, Option to Extend the Term of the Contract, or other appropriate authority.

Small business concern means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (c) of this clause. Such a concern is "not dominant in its field of operation" when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. In determining whether dominance exists, consideration shall be given to all appropriate factors, including volume of business, number of employees, financial resources, competitive status or position, ownership or control of materials, processes, patents, license agreements, facilities, sales territory, and nature of business activity.

(b) If the Contractor represented that it was a small business concern prior to award of this contract, the Contractor shall represent its size status according to paragraph (e) of this clause or, if applicable, paragraph (g) of this clause, upon the occurrence of any of the following:

1. Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.
2. Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.
3. For long-term contracts--
   (i) Within 60 to 120 days prior to the end of the fifth year of the contract; and
   (ii) Within 60 to 120 days prior to the date specified in the contract for exercising any option thereafter.

(c) The Contractor shall represent its size status in accordance with the size standard in effect at the time of this representation that corresponds to the North American Industry Classification System (NAICS) code assigned to this contract. The small business size standard corresponding to this NAICS code can be found at http://www.sba.gov/contractingopportunities/officials/size/index.html .

(d) The small business size standard for a Contractor providing a product which it does not manufacture itself, for a contract other than a construction or service contract, is 500 employees.

(e) Except as provided in paragraph (g) of this clause, the Contractor shall make the representation required by paragraph (b) of this clause by validating or updating all its representations in the Online Representations and Certifications Application and its data in the Central Contractor Registration, as necessary, to ensure that they reflect the Contractor's current status. The Contractor shall notify the contracting office in writing within the timeframes specified in paragraph (b) of this clause that the data have been validated or updated, and provide the date of the validation or update.

(f) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (e) or (g) of this clause.

(g) If the Contractor does not have representations and certifications in ORCA, or does not have a representation in ORCA for the NAICS code applicable to this contract, the Contractor is required to complete the following representation and submit it to the contracting office, along with the contract number and the date on which the representation was completed:

d. DEPARTMENT OF HEALTH AND SERVICES ACQUISITION REGULATION (HHSAR):

352.224-71 Confidential Information. (December 18, 2015)

(a) Confidential Information, as used in this clause, means information or data of a personal nature about an individual, or proprietary information or data submitted by or pertaining to an institution or organization.

(b) Specific information or categories of information that the Government will furnish to the Contractor, or that the Contractor is expected to generate, which are confidential may be identified elsewhere in this contract. The Contracting Officer may modify this contract to identify Confidential Information from time to time during performance.

(c) Confidential Information or records shall not be disclosed by the Contractor until:

(1) Written advance notice of at least 45 days shall be provided to the Contracting Officer of the Contractor's intent to release findings of studies or research, to which an agency response may be appropriate to protect the public interest or that of the agency.

(2) For information provided by or on behalf of the government,

(i) The publication or dissemination of the following types of information are restricted under this contract: see (a) and (b) above.

(ii) The reason(s) for restricting the types of information identified in subparagraph (i) are set forth in the Privacy Act of 1974, 5 U.S.C. 552a, and implementing regulations and policies.

(iii) Written advance notice of at least 45 days shall be provided to the Contracting Officer of the Contractor's intent to disseminate or publish information identified in subparagraph (2)(i). The contractor shall not disseminate or publish such information without the written consent of the Contracting Officer.

(d) Whenever the Contractor is uncertain with regard to the confidentiality of or a property interest in information under this contract, the Contractor should consult with the Contracting Officer prior to any release, disclosure, dissemination, or publication.

The Contractor represents that it [ ] is, [X] is not a small business concern under NAICS Code 541711 **assigned to contract number HHSO100201700014C.**

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

The following documents are attached and incorporated in this contract:

1. Statement of Work

Statement of Work, dated June 2, 2017, 4 pages

2. Invoice/Financing Request Instructions and Contract Financial Reporting Instructions for BARDA Cost-Reimbursement Type Contracts,

Invoice/Financing Request Instructions and Contract Financial Reporting Instructions for AMCG Cost-Reimbursement Type Contracts, 5 pages.

3. Financial Report of Individual Project/Contract, 1 page

4. Instructions for Completing Financial Report of Individual Project/Contract, 3 pages

5. Inclusion Enrollment Report

Inclusion Enrollment Report, 5/01 (Modified OAMP: 10/01), 1 page.

6. Research Patient Care Costs

Research Patient Care Costs, 1 page.

7. Report of Government Owned, Contractor Held Property

Report of Government Owned, Contractor Held Property, 1 page.

8. 7 Principles of Earned Value Management Implementation Guide (Tier 2), 30 pages.

9. Disclosure of Lobbying Activities, 2 pages

PART IV - REPRESENTATIONS AND INSTRUCTIONS

SECTION K - REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS

The following documents are incorporated by reference in this contract:

1) Human Subjects Assurance Identification Numbers: To be provided prior to study execution

2) Animal Welfare Assurance Numbers (OLAW/PHS): To be provided prior to study execution

End of Contract No. HHSO100201700014C

HHSO100201700014C
Contractual Statement of Work

CLINICAL DEVELOPMENT OF DRUG
Topic Area of Interest No. 3
June 2. 2017

PREAMBLE
Independently and not as agency of the Government, Summit (Oxford) Limited (hereafter the "Contractor") shall be required to furnish all the necessary services, qualified personnel, material, equipment, and facilities, not otherwise provided by the Government, as needed to perform the Statement of Work submitted in response to the BARDA Broad Agency Announcement (BAA) BARDA CBRN BAA-16-1OO- SOL-00001.
The Government reserves the right to modify the milestones, progress, schedule, budget, or deliverables to add or delete deliverables, process, or schedules if the need arises. Because of the nature of this research and development (R&D) contract and the complexities inherent in this and prior programs, at designated milestones the Government will evaluate whether work should be redirected, removed, or whether schedule or budget adjustments should be made. The Government reserves the right to change the product, process, schedule, or events to add or delete part or all of these elements as the need arises.

Overall Objectives and Scope
The overall objective of this contract is to advance the development of ridinilazole, a novel therapy for the treatment of Clostridium *difficile* Infections (CDI) and reducing the recurrence of CDI. The scope of work for this contract includes clinical and manufacturing development activities that fall into the following areas: non-clinical toxicology studies; clinical activities; manufacturing activities; and all associated regulatory, quality assurance, management, and administrative activities. The Research and Development (R&D) effort for ridinilazole will progress in specific stages that cover the base performance (I) segment and option segment (II) as specified herein. The Contractor must complete specific tasks required in each of the four discrete work segments. The statement of work has been broken into the following phases which are discrete work segments:

1. CLIN 1: [**]

2. CLIN 2: [**]
3. CLIN 3: [**]
4. CLIN 4: [**]

1. CLIN 1: [**]
The overall objective of CLIN 1 will be to [**].

1.1 Program Management (WBS 1.1)
[**]

2. CLIN 2: [**]

The overall objective of CLIN2 is to [**]

2.1 Program Management (WBS 1.1)

[**].

3. CLIN 3: [**]

The overall objective of CLIN3 is to [**].

3.1 Program Management (WBS 1.1)

[**].

4. CLIN 4: [**]

4.1 Program Management (WBS 1.1)

[**]

5. OTHER ITEMS

5.1 Facilities, Equipment and Other Resources. (Contract: Section J)

[**].

END
STATEMENT OF WORK
HHSO100201700014C

ATTACHMENT 2

INVOICE/FINANCING REQUEST AND CONTRACT FINANCIAL REPORTING INSTRUCTIONS FOR BARDA COST-REIMBURSEMENT CONTRACTS

Format: Payment requests shall be submitted on the Contractor's self-generated form in the manner and format prescribed herein and as illustrated in the Sample Invoice/Financing Request. Standard Form 1034, Public Voucher for Purchases and Services Other Than Personal, may be used in lieu of the Contractor's self-generated form provided it contains all of the information shown on the Sample Invoice/Financing Request. DO NOT include a cover letter with the payment request.

Number of Copies: Payment requests shall be submitted in the quantity specified in the Invoice Submission Instructions in Section G of the Contract Schedule.

Frequency: Payment requests shall not be submitted more frequently than once every two weeks in accordance with the Allowable Cost and Payment Clause incorporated into this contract. Small business concerns may submit invoices/financing requests more frequently than every two weeks when authorized by the Contracting Officer.

Cost Incurrence Period: Costs incurred must be within the contract performance period or covered by precontract cost provisions.

Billing of Costs Incurred: If billed costs include (1) costs of a prior billing period, but not previously billed, or (2) costs incurred during the contract period and claimed after the contract period has expired, the Contractor shall site the amount(s) and month(s) in which it incurred such costs.

Contractor's Fiscal Year: Payment requests shall be prepared in such a manner that the Government can identify costs claimed with the Contractor's fiscal year.

Currency: All BARDA contracts are expressed in United States dollars. When the Government pays in a currency other than United States dollars, billings shall be expressed, and payment by the Government shall be made, in that other currency at amounts coincident with actual costs incurred. Currency fluctuations may not be a basis of gain or loss to the Contractor. Notwithstanding the above, the total of all invoices paid under this contract may not exceed the United States dollars authorized.

Costs Requiring Prior Approval: Costs requiring the Contracting Officer's approval, which are not set forth in an Advance Understanding in the contract, shall be identified and reference the Contracting Officer's Authorization (COA) Number. In addition, the Contractor shall show any cost set forth in an Advance Understanding as a separate line item on the payment request.

Invoice/Financing Request Identification: Each payment request shall be identified as either:

(a) **Interim Invoice/Contract Financing Request:** These are interim payment requests submitted during the contract performance period.

(b) **Completion Invoice:** The completion invoice shall be submitted promptly upon completion of the work, but no later than one year from the contract completion date, or within 120 days after settlement of the final indirect cost rates covering the year in which the contract is physically complete (whichever date is later). The Contractor shall submit the completion invoice when all costs have been assigned to the contract and it completes all performance provisions.
(c) **Final Invoice:** A final invoice may be required after the amounts owed have been settled between the Government and the Contractor (e.g., resolution of all suspensions and audit exceptions).

Preparation and Itemization of the Invoice/Financing Request: The Contractor shall furnish the information set forth in the instructions below. The instructions are keyed to the entries on the Sample Invoice/Financing Request.

(a) **Designated Billing Office Name and Address:** Enter the designated billing office name and address, as identified in the Invoice Submission Instructions in Section G of the Contract Schedule.
(b) **Contractor's Name, Address, Point of Contact, VIN, and DUNS or DUNS+4 Number:** Show the Contractor's name and address exactly as they appear in the contract, along with the name, title, phone number, and e-mail address of the person to notify in the event of an improper invoice or, in the case of payment by method other than Electronic Funds Transfer, to whom payment is to be sent. Provide the Contractor's Vendor Identification Number (VIN), and Data Universal Numbering System (DUNS) number or DUNS+4. The DUNS number must identify the Contractor's name and address exactly as stated on the face page of the contract. When an approved assignment has been made by the Contractor, or a different payee has been designated, provide the same information for the payee as is required for the Contractor (i.e., name, address, point of contact, VIN, and DUNS).
(c) **Invoice/Financing Request Number:** Insert the appropriate serial number of the payment request.
(d) **Date Invoice/Financing Request Prepared:** Insert the date the payment request is prepared.
(e) **Contract Number and Order Number (if applicable):** Insert the contract number and order number (if applicable).
(f) **Effective Date:** Insert the effective date of the contract or if billing under an order, the effective date of the order.
(g) **Total Estimated Cost of Contract/Order:** Insert the total estimated cost of the contract, exclusive of fixed-fee. If billing under an order, insert the total estimated cost of the order, exclusive of fixed-fee. For incrementally funded contracts/orders, enter the amount currently obligated and available for payment.
(h) **Total Fixed-Fee:** Insert the total fixed-fee (where applicable). For incrementally funded contracts/orders, enter the amount currently obligated and available for payment.
(i) **Two-Way/Three-Way Match:** Identify whether payment is to be made using a two-way or three-way match. To determine required payment method, refer to the Invoice Submission Instructions in Section G of the Contract Schedule.

(j) **Office of Acquisitions:** Insert the name of the Office of Acquisitions, as identified in the Invoice Submission Instructions in Section G of the Contract Schedule.
(k) **Central Point of Distribution:** Insert the Central Point of Distribution, as identified in the Invoice Submission Instructions in Section G of the Contract Schedule.
(l) **Billing Period:** Insert the beginning and ending dates (month, day, and year) of the period in which costs were incurred and for which reimbursement is claimed.
(m) **Amount Billed - Current Period:** Insert the amount claimed for the current billing period by major cost element, including any adjustments and fixed-fee. If the Contract Schedule contains separately priced line items, identity the contract line item(s) on the payment request and include a separate breakdown (by major cost element) for each line item.
(n) **Amount Billed - Cumulative:** Insert the cumulative amounts claimed by major cost element, including any adjustments and fixed-fee. If the Contract Schedule contains separately priced line items, identify the contract line item(s) on the payment request and include a separate breakdown (by major cost element) for each line item.
(o) **Direct Costs:** Insert the major cost elements. For each element, consider the application of the paragraph entitled "Costs Requiring Prior Approval" on page 1 of these instructions.
(1) **Direct Labor:** Include salaries and wages paid (or accrued) for direct performance of the contract. For Level of Effort contracts only, the Contractor shall provide the following information on a separate sheet of paper attached to the payment request:
hours or percentage of effort and cost by labor category (as specified in the Level of Effort Article in Section F of the contract) for the current billing period, and
hours or percentage of effort and cost by labor category from contract inception through the current billing period. (NOTE: The Contracting Officer may require the Contractor to provide additional breakdown for direct labor, such as position title, employee name, and salary or hourly rate.)
(2) **Fringe Benefits:** List any fringe benefits applicable to direct labor and billed as a direct cost. Do not include in this category fringe benefits that are included in indirect costs.
(3) **Accountable Personal Property:** Include permanent research equipment and general purpose equipment having a unit acquisition cost of $1,000 or more, with a life expectancy of more than two years, and sensitive property regardless of cost (see the HHS *Contractor's Guide for Control of Government Property*). Show permanent research equipment separate from general purpose equipment. On a separate sheet of paper attached to the payment request, list each item for which reimbursement is requested. An asterisk (*) shall precede the item if the equipment is below the $1,000 approval level. Include reference to the following (as applicable):
item number for the specific piece of equipment listed in the Property Schedule, and
COA number, if the equipment is not covered by the Property Schedule.
The Contracting Officer may require the Contractor to provide further itemization of property having specific limitations set forth in the contract.

(4) **Materials and Supplies:** Include equipment with unit costs of less than $1,000 or an expected service life of two years or less, and consumable material and supplies regardless of amount.
(5) **Premium Pay:** List remuneration in excess of the basic hourly rate.

(6) **Consultant Fee:** List fees paid to consultants. Identify consultant by name or category as set forth in the contract or COA, as well as the effort (i.e., number of hours, days, etc.) and rate billed.
(7) **Travel:** Include domestic and foreign travel. Foreign travel is travel outside of Canada, the United States and its territories and possessions. However, for an organization located outside Canada, the United States and its territories and possessions, foreign travel means travel outside that country. Foreign travel must be billed separately from domestic travel.
(8) **Subcontract Costs:** List subcontractor(s) by name and amount billed.
(9) **Other:** List all other direct costs in total unless exceeding $1,000 in amount. If over $1,000, list cost elements and dollar amounts separately. If the contract contains restrictions on any cost element, that cost element must be listed separately
(p) **Cost of Money (COM):** Cite the COM factor and base in effect during the time the cost was incurred and for which reimbursement is claimed.
(q) **Indirect Costs:** Identify the indirect cost base (IDC), indirect cost rate, and amount billed for each indirect cost category.
(r) **Fixed-Fee:** Cite the formula or method of computation for fixed-fee, if applicable. The fixed-fee must be claimed as provided for by the contract.
(s) **Total Amounts Claimed:** Insert the total amounts claimed for the current and cumulative periods
(t) **Adjustments:** Include amounts conceded by the Contractor, outstanding suspensions, and/or disapprovals subject to appeal.
(u) Grand Totals
(v) Certification of Salary Rate Limitation: If required by the contract (see Invoice Submission Instructions in Section G of the Contract Schedule), the Contractor shall include the following certification at the bottom of the payment request: "I hereby certify that the salaries billed in this payment request are in compliance with the Salary Rate Limitation Provisions in Section H of the contract."
The Contracting Officer may require the Contractor to submit detailed support for costs claimed on one or more interim payment requests.

FINANCIAL REPORTING INSTRUCTIONS:
These instructions are keyed to the Columns on the sample invoice/financing request.
Column A - Expenditure Category: Enter the expenditure categories required by the contract.
Column B - Cumulative Percentage of Effort/Hrs. - Negotiated: Enter the percentage of effort or number of hours agreed to for each employee or labor category listed in Column A.
Column C - Cumulative Percentage of Effort/Hrs. - Actual: Enter the percentage of effort or number of hours worked by each employee or labor category listed in Column A.
Column D - Amount Billed - Current: Enter amounts billed during the current period.
Column E - Amount Billed - Cumulative: Enter the cumulative amounts to date.
Column F - Cost at Completion: Enter data only when the Contractor estimates that a particular expenditure category will vary from the amount negotiated. Realistic estimates are essential.
Column G - Contract Amount: Enter the costs agreed to for all expenditure categories listed in Column A.

Column H - Variance (Over or Under): Show the difference between the estimated costs at completion (Column F) and negotiated costs (Column G) when entries have been made in Column F. This column need not be filled in when Column F is blank. When a line item varies by plus or minus 10 percent, i.e., the percentage arrived at by dividing Column F by Column G, an explanation of the variance should be submitted. In the case of an overrun (net negative variance), this submission shall not be deemed as notice under the Limitation of Cost (Funds) Clause of the contract.

Modifications: Any modification in the amount negotiated for an item since the preceding report should be listed in the appropriate cost category.

Expenditures Not Negotiated: An expenditure for an item for which no amount was negotiated (e.g., at the discretion of the Contractor in performance of its contract) should be listed in the appropriate cost category and all columns filled in, except for G. Column H will of course show a 100 percent variance and will be explained along with those identified under H above.

SAMPLE INVOICE/FINANCING REQUEST AND CONTRACT FINANCIAL REPORT

(a) Designated Billing Office Name and Address: DHHS/OS/ASPR/BARDA Attn: Contracting Officer 330 Independence Ave., S.W. Room G644 Washington, D.C. 20201 (b) Contractor's Name, Address, Point of Contact, VIN, and DUNS or DUNS+4 Number: ABC CORPORATION 100 Main Street Anywhere, USA Zip Code Name, Title, Phone Number, and E-mail Address of person to notify in the event of an improper invoice or, in the case of payment by method other than Electronic Funds Transfer, to whom payment is to be sent. VIN: DUNS or DUNS+4:	(c) Invoice/Financing Request No.: (d) Date Invoice Prepared: (e) Contract No. and Order No. (if applicable): (f) Effective Date: (g) Total Estimated Cost of Contract/Order: (h) Total Fixed-Fee (if applicable): (i) ☐ Two-Way Match: ☐ Three-Way Match: (j) Office of Acquisitions: (k) Central Point of Distribution:

(l) This invoice/financing request represents reimbursable costs for the period from _____ to

Expenditure Category* A	Cumulative Percentage of Effort/Hrs.		Amount Billed		Cost at Completion F	Contract Amount G	Variance H
	Negotiated B	Actual C	(m) Current D	(n) Cumulative E			
(o) Direct Costs:							
(1) Direct Labor							
(2) Fringe Benefits							
(3) Accountable Property							
(4) Materials & Supplies							
(5) Premium Pay							
(6) Consultant Fees							
(7) Travel							
(8) Subcontracts							
(9) Other							
Total Direct Costs							
(p) Cost of Money							
(q) Indirect Costs							
(r) Fixed Fee							
(s) Total Amount Claimed							
(t) Adjustments							
(u) Grand Totals							

I certify that all payments are for appropriate purposes and in accordance with the contract.

_____ _____

(Name of Official) (Title)

* Attach details as specified in the contract

ATTACHMENT 3

FINANCIAL REPORT OF INDIVIDUAL PROJECT/ CONTRACT Note: Complete this Form in Accordance with Accompanying Instruction				Project Task:		Contract No.:		Date of Report:	0990-0134 0990-131
				Reporting Period:		Contractor Name and Address:			
Expenditure Category	Percentage of Effort/Hours		Cumulative Incurred Cost at End of Prior Period	Incurred Cost--Current Period	Cumulative Cost to Date (D + E)	Estimated Cost to Complete	Estimated Cost at Completion (F + G)	Negotiated Contract Amount	Variance (Over or Under) (I – H)
	Negotiated	Actual							
A	B	C	D	E	F	G	H	I	J

ATTACHMENT 4

INSTRUCTIONS FOR COMPLETING
"FINANCIAL REPORT OF INDIVIDUAL PROJECT/CONTRACT"

GENERAL INFORMATION

Purpose. This Quarterly Financial Report is designed to: (1) provide a management tool for use by be BARDA in monitoring the application of financial and personnel resources to the BARDA contracts; (2) provide contractors with financial and personnel management data which is usable in their management processes; (3) promptly indicate potential areas of contract underruns or overruns by making possible comparisons of actual performance and projections with prior estimates on individual elements of cost and personnel; and (4) obtain contractor's analyses of cause and effect of significant variations between actual and prior estimates of financial and personnel performance.

REPORTING REQUIREMENTS

Scope. The specific cost and personnel elements to be reported shall be established by mutual agreement prior to award. The Government may require the contractor to provide detailed documentation to support any element(s) on one or more Financial reports.

Number of Copies and Mailing Address. An original and two (2) copies of the report(s) shall be sent to the contracting officer at the address shown on the face page of the contract, no later than 30 working days after the end of the period reported. However, the contract may provide for one of the copies to be sent directly to the Contracting Officer's Technical Representative.

REPORTING STATISTICS

A modification which extends the period of performance of an existing contract will not require reporting on a separate quarterly report, except where it is determined by the contracting officer that separate reporting is necessary. Furthermore, when incrementally funded contracts are involved, each separate allotment is not considered a separate contract entity (only a funding action). Therefore, the statistics under incrementally funded contracts should be reported cumulatively from the inception of the contract through completion.

Definitions and Instructions for Completing the Quarterly Report. For the purpose of establishing expenditure categories in Column A, the following definitions arid instructions will be utilized. Each contract will specify the categories to be reported.

(1) **Key Personnel.** Include key personnel regardless of annual salary rates. All such individuals should be listed by names and job titles on a separate line including those whose salary is not directly charged to the contract but whose effort is directly associated with the contract. The listing must be kept up to date.

(2) **Personnel-Other.** List as one amount unless otherwise required by the contract.

(3) **Fringe Benefits.** Include allowances and services provided by the contractor to employees as compensation in addition to regular salaries and wages. If a fringe benefit rate(s) has been established, identify the base, rate, and amount billed for each category. If a rate has not been established, the various fringe benefit costs may be required to be shown separately. Fringe benefits which are included in the indirect cost rate should not be shown here.

(4) **Accountable Personal Property.** Include nonexpendable personal property with an acquisition cost of $1,000 or more and with an expected useful life of two or more years, and sensitive items regardless of cost. Form HHS 565, "Report of Accountable Property," must accompany the contractor's public voucher (SF 1034/SF 1035) or this report if not previously submitted. See "Contractor's Guide for Control of Government Property."

(5) **Supplies.** Include the cost of supplies and material and equipment charged directly to the contract, but excludes the cost of nonexpendable equipment as defined in (4) above.

(6) **Inpatient Care.** Include costs associated with a subject while occupying a bed in a patient care setting. It normally includes both routine and ancillary costs.

(7) **Outpatient Care.** Include costs associated with a subject while not occupying a bed. It normally includes ancillary costs only.

(8) **Travel.** Include all direct costs of travel, including transportation, subsistence and miscellaneous expenses. Travel for staff and consultants shall be shown separately. Identify foreign and domestic travel separately. If required by the contract, the following information shall be submitted: (i) Name of traveler and purpose of trip; (ii) Place of departure, destination and return, including time and dates; and (iii) Total cost of trip.

(9) **Consultant Fee.** Include fees paid to consultant(s). Identify each consultant with effort expended, billing rate, and amount billed.

(10) **Premium Pay.** Include the amount of salaries and wages over and above the basic rate of pay.

(11) **Subcontracts.** List each subcontract by name and amount billed.

(12) **Other Costs.** Include any expenditure categories for which the Government does not require individual line item reporting. It may include some of the above categories.

(13) **Overhead/Indirect Costs.** Identify the cost base, indirect cost rate, and amount billed for each indirect cost category.

(14) **General and Administrative Expense.** Cite the rate and the base. In the case of nonprofit organizations, this item will usually be included in the: indirect cost.

(15) **Fee.** Cite the fee earned, if any.

(16) **Total Costs to the Government.**

PREPARATION INSTRUCTIONS

These instructions are keyed to the Columns on the Quarterly Report.

Column A-Expenditure Category. Enter the expenditure categories required by the contract.

Column B-Percentage of Effort/Hours Negotiated. Enter the percentage of effort or number of hours agreed to during contract negotiations for each labor category listed in Column A.

Column C-Percentage of Effort/Hours-Actual. Enter the cumulative percentage of effort or number of hours worked by each employee or group of employees listed in Column A.

Column D-Cumulative Incurred Cost at End of Prior Period. Enter the cumulative incurred costs up to the end of the prior reporting period. This column will be blank at the time of the submission of the initial report.

Column E-Incurred Cost-Current Period. Enter the costs which were incurred during the current period.

Column F-Cumulative Incurred Cost to Date. Enter the combined total of Columns D and E.

Column G-Estimated Cost to Complete. Make entries only when the contractor estimates that a particular expenditure category will vary from the amount negotiated. Realistic estimates are essential.

Column H-Estimated Costs at Completion. Complete only if an entry is made in Column G.

Column I-Negotiated Contract Amount. Enter in this column the costs agreed to during contract negotiations for all expenditure categories listed in Column A.

Column J-Variance (Over or Under). Complete only if an entry is made in Column H. When entries have been made in Column H, this column should show the difference between the estimated costs at completion (Column H) and negotiated costs (Column I). When a line item varies by plus or minus 10 percent, i.e., the percentage arrived at by dividing Column J by Column I, an explanation of the variance should be submitted. In the case of an overrun (net negative variance), this submission shall not be deemed as notice under the Limitation of Cost (Funds) Clause of the contract.

Modifications. List any modification in the amount negotiated for an item since the preceding report in the appropriate cost category.

Expenditures Not Negotiated. List any expenditure for an item for which no amount was negotiated (e.g., at the discretion of the contractor in performance of its contract) in the appropriate cost category and complete all columns except for I. Column J will of course show a 100 percent variance and will be explained along with those identified under J above.

Attachment 5
INCLUSION ENROLLMENT REPORT

This report format should NOT be used for data collection from study participants

Study Title:				
Total Enrollment:	Protocol Number:			
Contract Number:				
PART A. TOTAL ENROLLMENT REPORT: Number of Subjects Enrolled to Date (Cumulative) by Ethnicity and Race				
Ethnic Category	Sex/Gender			
	Females	**Males**	**Unknown or Not Reported**	**Total**
Hispanic or Latino				
Not Hispanic or Latino				
Unknown (Individuals not reporting ethnicity)				
Ethnic Category: Total of All Subjects*				
Racial Categories				
American Indian/Alaska Native				
Asian				
Native Hawaiian or Other Pacific Islander				
Black or African American				
White				
More than one race				
Unknown or not reported				
Racial Categories: Total of All Subjects*				
PART B. HISPANIC ENROLLMENT REPORT: Number of Hispanics or Latinos Enrolled to Date (Cumulative)				
Racial Categories	**Females**	**Males**	**Unknown or Not Reported**	**Total**
American Indian or Alaska Native				
Asian				
Native Hawaiian or Other Pacific Islander				
Black or African American				
White				
More Than One Race				
Unknown or not reported				
Racial Categories: Total of Hispanics or Latinos**				
*These totals must agree **These totals must agree				

ATTACHMENT 6

Research Patient Care Costs

(a) Research patient care costs are the costs of routine and ancillary services provided to patients participating in research programs described in this contract.

(b) Research patient care costs shall be computed in a manner consistent with the principles and procedures used by the Medicare Program for determining the part of Medicare reimbursement based on reasonable costs. The Diagnostic Related Group (DRG) prospective reimbursement method used to determine the remaining portion of Medicare reimbursement shall not be used to determine research patient care costs. Research patient care rates or amounts shall be established by the Secretary of HHS or his/her duly authorized representative.

(c) Prior to submitting an invoice for research patient care costs under this contract, the contractor must make every reasonable effort to obtain third party payment, where third party payors (including Government agencies) are authorized or are under a legal obligation to pay all or a portion of the charges incurred under this contract for research patient care.

(d) The contractor must maintain adequate procedures to identify those research patients participating in this contract who are eligible for third party reimbursement.

(e) Only those charges not recoverable from third party payors or patients and which are consistent with the terms and conditions of the contract are chargeable to this contract.

REPORT OF GOVERNMENT OWNED, CONTRACTOR HELD PROPERTY

CONTRACTOR:	**CONTRACT NUMBER:**
ADDRESS:	**REPORT DATE:**
ADDRESS1:	
ADDRESS2:	**FISCAL YEAR:**
CITY:	
STATE:	
ZIP:	

CLASSIFICATION	**BEGINNING OF PERIOD**		**ADJUSTMENTS**			**END OF PERIOD**	
	#ITEMS	VALUE	GFP ADDED	CAP ADDED	DELETIONS	#ITEMS	VALUE
LAND >=$25K							
LAND <$25K							
OTHER REAL >=$25K							
OTHER REAL <$25K							
PROPERTY UNDER CONST >=$25K							
PROPERTY UNDER CONST < $25K							
PLANT EQUIP >=$25K							
PLANT EQUIP <$25K							
SPECIAL TOOLING >=$25K							
SPECIAL TOOLING <$25K							
SPECIAL TEST EQUIP >=$25K							
SPECIAL TEST EQUIP <$25K							
AGENCY PECULIAR >=$25K							
AGENCY PECULIAR <$25K							
MATERIAL >=$25K (CUMULATIVE)							
PROPERTY UNDER MFR >= $25K							
PROPERTY UNDER MFR < $25K							

SIGNED BY:			
SIGNATURE		DATE SIGNED:	
NAME PRINTED		Email	
TITLE		TELEPHONE	

Department of Health & Human Services

HHS

Office of the Assistant Secretary for Preparedness and Readiness

ASPR

Biomedical Advanced Research and Development Authority

BARDA

7 Principles of Earned Value Management Tier 2 System Implementation Intent Guide

01 May 2011

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OVERVIEW

Earned Value Management (EVM) is a program management tool, technique, and discipline that facilitates systematic planning for and monitoring of, high value, complex projects. It integrates a project's scope of work with the related budget and schedule to permit detailed assessment of overall performance during the life of the project.

Several government-wide guidance documents govern the definition and use of EVM systems. Guidelines outlining the qualities and characteristics of an EVM system are set forth in the American National Standards Institute/Electronic Industries Alliance (ANSI/EIA) Standard-748 (most current version). More detailed and specific guidance and direction is contained in OMB Circular A-11, *Preparation, Submission and Execution of the Budget*, specifically in Part 7 of that Circular A-11, *Planning, Budgeting, Acquisition, and Management of Capital Assets*, and its supplement, the Capital Programming Guide. Based on this collective OMB guidance, EVMS is intended to be used on those parts of acquisitions that will involve developmental effort. This would include not only those acquisitions designated by the agency as major systems but also those acquisitions that include significant developmental, modification, or upgrade during the operational or steady-state phase of a program.

The FAR rule on EVMS became effective on July 5, 2006. Its purpose is to implement EVMS policy in accordance with OMB Circular A-11. Because the new FAR coverage applies throughout the executive branch and to agencies with disparate definitions of and processes and procedures for major systems acquisitions, the FAR Council decided against a "one-size-fits all" approach and left several significant aspects of the detailed implementation up to the discretion of each covered agency.

The FAR and Health and Human Services Acquisition Regulations (HHSAR) language for EVMS will be utilized for all construction or Information Technology (IT) projects. Since most of the acquisitions at the Biomedical Advanced Research and Development Agency (BARDA) are unique in that most acquisitions are not Information Technology projects or construction projects, BARDA is developing EVM language that incorporates the 7 Principles of Earned Value Management. These principles allow flexibility to an EVM system structure but still meet the spirit of the ANSI/EIA Standard-748. It also incorporates discipline in implementation and operations and also provides the same reporting data outlined by OMB.

The Seven Principles of Earned Value Management are as follows:

1. Plan all work scope to completion

2. Break down the program work scope into finite pieces that can be assigned to a responsible person or organization for control of technical, schedule and cost objectives

3. Integrate program work scope, schedule, and cost objectives into a performance measurement baseline plan against which accomplishments can be measured. Control changes to the baseline.

4. Use actual costs incurred and recorded in accomplishing the work performed.

5. Objectively assess accomplishments at the work performance level.

6. Analyze significant variances from the plan, forecast impacts, and prepare an estimate at completion based on performance to date and work to be performed.

7. Use earned value information in the company's management processes.

EVM IMPLEMENTATION TIERS

BARDA will be implementing a tiered approach to EVM based on the type of acquisition, size of the acquisition and the technical readiness level. There are three tiers and they are as follows:

TIER 1

For all construction contracts and IT contracts the ANSI/EIA-748 Standard for Earned Value Management Systems will apply and all relevant FAR/HHSAR clauses pertaining to EVMS will be incorporated in the contract. The National Defense Industrial Association (NDIA) Program Management Systems Committee (PMSC) ANSI/EIA-748 Standard for Earned Value Management Systems Intent Guide should be used as guidance.

TIER 2

For countermeasure research and development contracts that have a total acquisition costs greater than or equal to $25 million and have a Technical Readiness Level (TRL) of less than 7 will apply EVM principles for tracking cost, schedule and technical performance that comply with the 7 Principles of EVM Implementation.

TIER 3

For countermeasure research and development contracts that have total acquisition costs less than $25 million but greater than $10 million will apply EVM principles for tracking cost, schedule and technical performance that are consistent with the 7 Principles of EVM Implementation.

This Guide is an explanation of the intent of what is expected for a Tier 2 system implementation of the 7 Principles of EVM.

SEVEN PRINCIPLES OF EVM

Principle 1: Plan all Work Scope

In a performance measurement system implementation the Statement of Work (SOW) should reflect all work that is to be performed. In a 7 Principles implementation a Work Breakdown Structure (WBS) shall be developed to include all elements of the SOW. The level of the WBS may not be as detailed as in a Tier 1 implementation. It would be developed at a higher level, such as level three or four, however, the government may expand specific technical legs to lower than level four and it may retract some non-technical legs to higher than 3. It is beneficial and required to develop a WBS dictionary that explains what work is going to be performed in each WBS in detail. This will ensure that the contractor has identified all work scope and left no major work undefined. It is recommended that the work packages descriptions are clear and detailed so that there is an understanding of the work that is to be performed in the work packages. For the 7 Principles implementation programs it would be acceptable for the WBS Dictionary be expanded to include information that would normally be kept on a Work Authorization Document, such as charge numbers associated with the work, period of performance, the manager who is responsible for the work, and budget associated with the WBS. The additional "WAD info" would only be added to the lowest level (i.e. level 3 or 4) of the WBS. The roll up level WBS would only include scope. By doing this documentation is limited to one document instead of two.

By developing a WBS and a WBS Dictionary/Work Authorization Document the work scope has been defined but the documentation is greatly reduced and the costs associated with developing and updating the documentation is reduced. The intent of the combination document is not to reduce the level of information provided to the government but to reduce the amount of documents that need to be produced. An example of a WBS dictionary and Work Authorization document and what is expected on the document(s) is provided.

Principle 2: Break Work into Finite Pieces and Define Person/Organization Responsible for Work

In a 7 Principles Tier 2 implementation it is recommended that the work be broken into finite pieces in the schedule tool. It is recommended to plan the work by the lowest level WBS. The lowest level WBS (level 3 or 4) should be the control account and the activities would act as the work packages. For Tier 2 programs that are of larger value (greater than $25M) the expectation is that the control account will be at least at level 4 and potentially level 5. Most of the normal functions accomplished when scheduling will be required on a 7 Principles Tier 2 implementation. These normal functions include, network scheduling, horizontal and vertical traceability, forecasting schedule start and completion dates, and running critical path analysis. As part of vertical traceability it is expected that all contract milestones will be listed on the schedule.

The schedule should include but is not limited to include the following fields:

WBS number
Control Account number
Work package number
Task name
Duration
Baseline Start and Finish Dates
Actual Start and Finish Dates
Forecast Start and Finish Dates
Predecessor/Successors
Activity Percent Complete

All the work scheduled at the lowest level WBS should be identified by a single responsible manager. This manager, known as a Control Account Manager should be identified in the schedule tool and/or in a cost tool. In a 7 Principles implementation, only individuals at the lowest level WBS need be identified and there is no requirement for the costs to roll up by organization, although if it is not cost intensive or tool restricted then developing the OBS is recommended. In many cases, BARDA will provide the top three levels of the WBS for the contractor to use.

Principle 3a: Integrate Scope, Schedule and Budget into a Performance Measurement Baseline

This principle integrates the work scope, the schedule and the budget into a performance measurement baseline. Since we discussed work scope and schedule the focus of this principle is the incorporation of the budget in a time-phased manner. The budget must be integrated with the scope of work and the schedule into a Performance Measurement Baseline (PMB). The budget is made up of both direct and indirect dollars. An accepted way of incorporating the budget and integrating with the scope and schedule is to resource load the Microsoft Project (or other scheduling tool) schedule. This is done by loading the individual people and their loaded rate into the tool. This budget data will be input at the work package level with a rate that includes the indirect costs. The budget will have to have the capability to be rolled up to the control account level and will need to be reported in a way that provides the responsible manager (Control Account Manager) with information needed to manage the program. Resource loading of the schedule is not the only way to incorporate the budget. As long as the budget in the budget/EV tool is linked to the schedule activities and it is flexible to change when schedule baseline dates change, then loading the budget in the Budget/EV tool is an acceptable way to integrate the cost and schedule baselines. The budget information will be displayed on the time-phased Control Account Plan reports. These reports should have the flexibility to report the dollars both in total dollars, as well as, direct and indirect broken out separately. Also the report is generally required as a deliverable on most contracts and must have the capability to include earned value or Budgeted Cost of Work Performed (BCWP) and actual costs or Actual Costs of Work Performed (ACWP).

Budgeting of subcontractor effort will vary depending on whether or not the subcontractor is a cost plus or fixed price subcontract. If it is cost plus then the expectation is that there will be monthly billing of costs from the subcontractor to the prime contractor and therefore budget must be planned in accordance with the work completed and billed. If it is fixed price then the budget should be planned with work execution or milestones completed and budget should only be planned in those months where work is expected to be completed.

It is recommended that management reserve and undistributed budget be utilized in the budgeting process. Undistributed budget is budget that has not yet been distributed to a control account and it requires additional time to plan the work and distribute the budget to a control account. It is a temporary holding account and budget should only stay in Undistributed Budget for one or two months. If the work scope is easily identified to all the control accounts then the use of Undistributed Budget may not be necessary.

Management Reserve is budget that is set aside, normally by the Program Manager, to be used to budget future but currently unknown tasks. It is associated with risk issues and is to be used to mitigate risk. It is not part of the Performance Measurement Baseline and it should not be used for out of scope work and to cover overruns.

Principle 3b: Control Changes to the Baseline

A properly controlled PMB is crucial to effective program management. The timely and accurate incorporation of contractual changes ensures that the information generated from the execution of the baseline plan provides an accurate picture of progress and facilitates correct management actions and decisions. The accurate and timely incorporation of authorized and negotiated changes into the PMB ensures that valid performance measurement information is generated for the new scope being executed. Near term new scope effort should be planned and have budget in control accounts. Far term new scope effort that cannot be reasonably planned in the near term can either be put in planning packages in the control account or left in Undistributed Budget if the control account has not been identified. The timely and accurate incorporation of authorized and negotiated changes into the PMB ensures that valid performance measurement information is generated for the new scope being executed. Budget revisions are made when work is added to the contract and are traceable from authorized contract target costs to the control account budgets or from management reserve. Management reserve may be used for future work when additional in-scope work has been identified.

Retroactive changes to the baseline may mask variance trends and prevent the use of performance data to project estimates of cost and schedule at completion. Controlling retroactive adjustments, which should only be made in the current period, if possible, is imperative because they could arbitrarily eliminate existing cost and schedule variances.

The use of program budget logs should be used to track and log all budget changes. The ability to track budget values for both the internal and external changes will help in the maintenance of the performance measurement baseline from program start to completion. Contractor is expected to utilize baseline change documentation facilitating the change. It should provide the rationale/ justification, approval process, work scope additions or deletions, dollars, changes to schedules,

estimate at completion, etc. It should also include contractual change documents for external changes, such as a contract modification, letter to proceed, not to exceed letter, change order, etc., that transmit and authorize the change or addition to work, budget, and schedule. Other documents that should change if a change of scope has been authorized is: Statement of Work, WBS (changes if applicable); WBS Dictionary (additions or deletions to scope); work authorization documents authorizing new scope, schedule and budget; schedules.

Principle 4: Use Actual Costs Incurred and Recorded in Accomplishing the Work Performed

Some of the new acquisitions at BARDA will be required to be compliant with the Cost Accounting Standards. For 7 Principles implementation contractors must utilize a work order/ job order/task code charge number structure that uniquely identifies costs at the control account level. This will allow for accumulation and summarization of costs to higher levels of the work breakdown structure. Actual costs are accumulated in the formal accounting system in a manner consistent with the way the related work is planned and budgeted. Actual costs reported in the performance reports agrees with the costs recorded in the accounting system or can be explained as timing differences. The contractor will have to be able to incorporate and reconcile to the accounting system actual costs on their Contract Performance Reports (CPR) to the customer.

Depending on the amount of material and subcontractors on the program, it may be necessary for reporting purposes, to include accruals, or estimated actuals, for these costs. Since material and subcontractor invoices are not paid and recorded in the accounting system for up to several months after the work has been planned, performance data will be skewed. Accruing or estimating actual costs based on receipt (for material) and expended hours for subcontractors will alleviate this issue. The use of accrual/estimated actuals should be reviewed on a case by case basis depending on the size of program, the amount of material or subcontractor budget and costs. If the material and subcontract effort on the project is minimal (represents less than 5% of the project budget) then the time and effort needed to manage the accruals would outweigh the benefit of having the costs accrued since the performance data would only be minimally affected. Although actual costs are generally reported to the USG in total dollars the system must be able to differentiate and report direct costs and indirect costs if requested.

If the subcontractor has a fixed price contract the prime contractor, then the prime contractor must report actual costs in accordance with the work that is accomplished. This is acheived by recording the actual costs equal to the work that was performed in the EVM system and on the CPR. If the subcontractor is a cost plus contract its imperative the costs the prime reports is in accordance with the costs incurred in that month. This is necessary to ensure that the data reported is not skewed. With this premise, fixed price subcontractors cost variances should not exist or be reported on the CPR whereas the cost reported for cost plus subcontractors should be based on what was incurred and not what has been invoiced to date, which may be months behind.

Principle 5: Objectively Assess Accomplishments at the Work Performance Level

In order to meet this Principle, the scheduling of the scope of work in work packages or activities need to incorporate measurable units or milestones in order to objectively assess accomplishments or obtain what we call “earned value”. These units or milestones are given a value based on labor resources needed to accomplish the work (which becomes the Budgeted Cost of Work Scheduled or BCWS). When they are accomplished (known as Budgeted Cost of Work Performed or BCWP) they receive the value associated with the budget which measures progress.

Schedule status to measure progress needs to be on at least on a monthly basis although it is preferred on a bi-weekly basis. As part of the status process progress dates, such as actual start/ complete and forecast start/complete need to be updated.

Since Microsoft Project seems to be the schedule tool of choice by most contractors, there are four types of earned value methodologies utilized by Microsoft Project of which two assess progress by the completion of milestones and they are the 50/50 and 0/100 methodologies. In both cases, progress is reported for completion milestones and in the 50/50 methodology fifty percent of the value of the work package/activity is credited for starting the work. The other two earned value methodologies are assessed percent complete (also know as Supervisor’s Estimate) and level of effort (LOE). All four methodologies are legitimate earn value measurement techniques but the assessed percent complete based or supervisor’s estimates are highly discouraged. The reason is that it is highly subjective and is not based on any quantifiable criteria. BARDA will not accept these earned value methodologies unless approved as an exception on a case by case basis. If percent complete on work packages is used with objective measurable activities, the contractor must show distinct relationship between the budget planned at the work package level and the value earned at the activity level. If this is done properly then the measurement will be objective and the schedule variance will be clearly understood and easy to explain. If this is not done properly then schedule activities are not aligned with the budget in the performance measurement baseline and schedule variances will not be easy to understand. If the latter is the case, BARDA will not accept that as an acceptable earned value methodology.

There are built in weaknesses with the 0/100 and 50/50 methodologies also. If the responsible manager is being asked to plan their work in monthly increments in order to utilize the 0/100 methodology then they may be asked to break the work up in pieces that don’t make logical sense or represent the natural ending of the work. Also the 50/50 methodology, which is usually used for a two month work package, will provide skewed monthly data if the resources in the work package are not loaded equally for each month. It will give an artificial positive or negative schedule variance the first month and vice versa the next month.

Additional earned value methodologies, such as the weighted milestone methodology and percent complete with milestone gates may be utilized. The weighted milestone method allows value to be earned based on the resource value in each month, which eliminates artificial schedule variances.

For all discrete measurable work packages or control accounts, there must be an activity in each month to measure. Gaps, in which there is nothing to measure in a month or months is not acceptable.

For subcontractors that have a fixed price contract with the prime contractor, the expectation is that there will be no cost variance. The ACWP reported on the CPR will equal the BCWP earned, regardless of the payment schedule with subcontractor.

Principle 6a: Analyze Significant Variances From the Plan

The purpose of this principle is to ensure that the earned value data is analyzed by the contractor and reported to the customer. The 7 Principles programs should be able to calculate the cost variance (BCWP minus Actual Cost of Work Performed (ACWP) and the schedule variance (BCWP minus BCWS) at least on a cumulative basis. It is recommended that variances be calculated on a current month basis also. The EVM system should also provide both monthly and cumulative Cost Performance Index (BCWP divided by ACWP) and Schedule Performance Index (BCWP divided by the BCWS). This data should be provided at the control account level and at the roll up levels and it needs to be in a format for Control Account Managers and program management to be able to utilize in managing the work.

It is also recommended that the To-Complete Performance Index (TCPI) be included in the Control Account Manager performance report. The TCPI is a valuable index that calculates the cost performance the control account needs to perform at in order to complete the work within the current reported EAC. When the TCPI is compared against the cumulative CPI it gives a good indication whether or not the current EAC is reasonable. For example, if a cumulative CPI is .85 and the TCPI calculates to equal 1.15 that is the performance factor that work would need to perform at in order to meet the current EAC. If the cumulative CPI is .85 then it can be determined that the current EAC might not be reasonable. It allows management and Project Controls the opportunity to question the Control Account Manager as to the validity of the current EAC. As a rule in thumb if the deviation between the CPI and the TCPI is greater than .2 then the CAM should reassess the control account EAC.

These reports, which should be provided monthly, should also include the current Budget at Completion (BAC) and the current Estimate at Completion (EAC). In addition, it would be a plus if the CAM could see a report with their time-phased spread of hours and dollars for their budget plan (BCWS), work accomplished (BCWP) and actual costs (ACWP).

For all variances that exceed the contractual variance threshold will include a description of what caused the variance, impact to the control account and the program, and a corrective action.

Principle 6b: Prepare an Estimate at Completion Based on Performance to Date and Work to be Performed

Providing an updated EAC is a prime concern of the customer and the contractor. Therefore a robust EAC process should be in place whether the program is ANSI compliant or not.

Based on the performance to date the Estimates at Completion can be updated on a monthly basis by the Control Account Manager in the scheduling tool during the status process or in the cost/ EVM tool at the end of the month's process prior to submittal of the EVM report. The EAC is an

element of the performance measurement system that needs to accurately reflect the contractor's best estimate of what it will cost to complete the project.

Program management should be able to validate control account manager's EACs by looking at performance indices, such as the To-Complete Performance Index, as well as independent statistical EACs.

Principle 7: Use EVMS Information in the Company's Management Processes

One of the key areas that concerns government Program Management Offices (PMO) is the level of importance that contractor's place on EVM as a management tool. During a site visit, such as conducting an Integrated Baseline Review, the PMO gauges what the interest, knowledge, and most importantly, the usage of the performance measurement data in managing the program. They want to know that the managers on the program, including the program manager, have received some earned value training. The level of involvement and use of the EVM data to manage their schedule, cost and technical issues is ascertained by questions. The PMO can also tell by how robust the EACs are and if the variance narratives are being written with impacts to the program and corrective actions being monitored by the contractor. It is important that the contractor's management team, including the Program Manager, utilize the data from the performance measurement system as a management tool. They should be knowledgeable and understand the data. They should know what is causing the variances and ensure that the variance narratives are written properly and answer what the issues, impacts and corrective actions are. They should be able to demonstrate that they use the information to assist them in the management decision process. They should hold their Control Account Managers accountable to use the data and write clear proper variance analysis report (VAR). If the Control Account Manager does not write a proper VAR then Project Controls needs to help instruct them how to do it. It is recommended that prior to the Earned Value report be sent to the government that the Program Manager has a meeting with the Control Account Managers and Project Control and review the data and ensure that the variance analysis is complete and that the Program Manager agrees with it. This review is also used to ensure that the EACs are acceptable to the Program Manager, who is ultimately responsible for the program EAC. This is an efficient and quick way to make any adjustments to the earned value report since all the key personnel are in one room. If the data appears to be unreliable then the PM needs to hold Project Controls accountable to ensure that they are using discipline in changing baselines, assessing process properly, and capturing actual costs to ensure that the data that is reported is accurate.

APPENDICES

The following appendices provide further support in understanding the meaning and intent of properly implementing the 7 Principles of EVM.

Appendix 1 is a glossary of the terms used in the Intent Guide.

Appendix 2 is supplemental guidance on EVM implementation. It provides some guidelines on what is expected in the implementation, required documents needed for the Performance Measurement Baseline Review, expected EVM implementation costs, EVM engines functionality needs, explains what is expected in the monthly EVM facilitation, discusses what EVM consultants need to know, and what the expected costs of EVM to BARDA.

Appendix 3 are examples of some of the EVM documents that are needed in an EVM system. There are three documents and they mostly apply to Tier 2 EVM implementations. These documents are samples and are not a reflection of the specific way the document must look. It's included to provide contractors with an understanding of the type of information that is expected on these forms.

APPENDIX 1: Glossary of Terms

Actual Cost of Work Performed (ACWP)	The costs actually applied and recorded in accomplishing the work performed within a specified period.
Actual Direct Cost	Those costs identified specifically with a contract, based upon the contractor's cost identification and accumulation system as accepted by the cognizant DCAA representatives. (See Direct Costs).
Advance Agreement (AA)	An agreement between the contractor and the Contract Administration Office concerning the application of an approved earned value management system to contracts within the affected facility.
Authorized Work	That effort which has been authorized and is on contract, or that for which authorized contract costs have not been agreed to but for which written authorization has been received.
Baseline	(See Performance Measurement Baseline).
Budget at Completion (BAC)	The sum of all budgets (BCWS) allocated to the contract. Synonymous with the term Performance Measurement Baseline.
Budgeted Cost for Work Performed (BCWP)	The sum of the budgets for completed Work Packages and completed portions of open Work Packages, plus the appropriate portion of the budgets for level of effort and apportioned effort (Also see Earned Value).
Budgeted Cost for Work Scheduled (BCWP)	The sum of the budgets for completed Work Packages, planning packages, etc., scheduled to be accomplished (including in-process Work Packages), plus the amount of level of effort and apportioned effort scheduled to be accomplished within a given time period.

Change Order (CO)	A formal authorization by the Procuring Contracting Officer for a change of scope to an existing contract
Contract Modification	A written and binding authorization to proceed created after change proposal negotiations.
Contract Budget Base (CBB)	The negotiated contract cost plus the estimated cost of authorized unpriced work, where: (1) Negotiated Contract Cost is that cost on which contractual agreement has been reached. For an incentive contract, it is the definitized contract target cost plus/minus the value of changes which have been priced and incorporated into the contract through contract change order or supplemental agreement. For fixed-fee contracts, it is the negotiated estimated cost. Changes to the estimated cost will consist only of the formal contract modifications or change orders or change in the contract statement of work, not for cost growth, and (2) Estimated cost of authorized, unpriced work is the estimated cost (excluding fee or profit) for that work for which written authorization has been received, but for which definitized contract prices have not been incorporated into the contract through supplemental agreement.
Control Account	A management control point at which actual costs can be accumulated and compared to budgeted cost for work performed. A control account is a natural control point for cost/schedule planning and control since it represents the work assigned to one responsible organizational element on one contract work breakdown structure (CWBS) element.
Control Account Manager (CAM)	A member of a functional organization responsible for task performance detailed in a Control Account and for managing the resources authorized to accomplish the tasks.
Control Account Plan (CAP) Report	A CAP report is a timephased report which reflects all the work and effort to be performed in a control account. The CAP report will reflect the hours and dollars by element of cost (labor, subcontract, ODC, etc).
Contract Performance Report (CPR)	The monthly report submitted to the customer showing the current, cumulative and at completion status, the performance measurement baseline, manpower loading, and a narrative explanation of significant program variances.
Contract Target Cost	The dollar value (excluding fee or profit) negotiated in the original contract plus the cumulative cost (excluding fee or profit) applicable to all definitized changes to the contract. It consists of the estimated cost negotiated for a cost plus fixed fee contract and the definitized target cost for an incentive contract. The contract target cost does not include the value of authorized/un-negotiated work, and is thus equal to the contract budget base only when all authorized work has been negotiated/definitized.

Cost Performance Index (CPI)	An efficiency rating reflecting a project's budget performance - either over or under. Measured as a ratio of the budgeted value of work accomplished versus the actual costs expended for a given project time period. The formula for CPI is BCWP/ ACWP.
Discrete Effort	Program effort that has a measurable output, product or service.
Direct Costs	Those costs (labor, material, etc.) that can be reasonably and consistently related directly to service performed on a unit of work, and are charged directly to the contract, without distribution to an overhead unit.
Earned Value	See Budgeted Cost for Work Performed (BCWP)
Earned Value Management System (EVMS)	A project management system utilized for measuring project progress in an objective manner. Combines measurements of scope, schedule, and cost in a single integrated system.
Estimate at Completion (EAC)	A value (expressed in dollars and/or hours) developed to represent a realistic appraisal of the final cost of tasks when accomplished. It's the sum of direct & indirect costs to date plus the estimate of costs for all authorized Work remaining. The EAC = ACWP + the Estimate-to-Complete.
Estimate to Completion (ETC)	A value (expressed in dollar and/or hours) developed to represent a realistic appraisal of the cost of the work still required to be accomplished in completing a task.
Indirect Costs	Represents those costs, because they are incurred for common or joint objectives, are not readily subject to treatment as direct costs. (See overhead).
Integrated Baseline Review (IBR)	An Integrated Baseline Review (IBR) also known as Performance Measurement Baseline Review (PMBR) is a formal review led by the Government Program Manager and Technical Support Staff. An IBR is conducted jointly with the Government and their Contractor counterparts. The purpose of an IBR is to: verify the technical content of the Performance Measurement Baseline (PMB); assess the accuracy of the related resources (budgets) and schedules; identify potential risks.
Integrated Master Plan (IMP)	The overall program plan including the work definition, technical approach, performance criteria, and completion criteria.
Integrated Master Schedule (IMS)	The IMS expands the IMP to the work planning level. It defines the tasks, their durations, milestones, milestone dates which relate to the IMP completion criteria, and interdependencies required to complete the program. The IMP and IMS are used to track and execute the program.
Integrated Product Team (IPT)	A grouping of project personnel along project objective lines rather than along organizational lines. Integrated Product Teams are work teams that represent a transition from a functional organization structure to a multi-functional project objective arrangement.

Internal Replanning	Replanning actions performed by the program for remaining effort within the recognized total allocated budget.
Level of Effort (LOE)	Work that does not result in a final product, e. g., liaison, coordination, follow-up, or other support activities, and which cannot be effectively associated with a definable end product process result. It is measured only in terms of resources actually consumed within a given time period.
Management Reserve (MR)	An amount of the total Contract Budget Base (CBB) withheld for management control purposes rather than designated for the accomplishment of a specific task or set of tasks. It is not a part of the Performance Measurement Baseline.
Negotiated Contract Target Cost	The estimated cost negotiated in a Cost Plus Award Fee (CPAF), Cost Plus Fixed Fee (CPFF), Cost Plus Incentive Fee (CPIF) or Fixed Price Incentive Fee (FPIF) contract.
Original Budget	The budget established at, or near, the time the contract was signed, based on the negotiated contract cost.
Overhead	Indirect labor and material, supplies and services costs and other charges, which cannot be consistently identified with individual programs.
Other Direct Costs	A group of accounting elements which can be isolated to specific tasks, other than labor and material. Included in ODC are such items as travel, computer time, and services
Performance Measurement Baseline (PMB)	The time-phased budget plan against which contract performance is measured. It is formed by the budgets assigned to scheduled Control Accounts and the allocation of overhead costs. For future effort, not planned to the Control Account level, the performance measurement baseline also includes budgets assigned to higher level WBS elements, and undistributed budgets. It equals the total assigned budget less management reserve.
Performing Organization	A defined unit within the program organization structure, which applies the resources to performs the authorized scope of work.
Planning Package	A logical aggregation of far term work within a Control Account that can be identified and budgeted but not yet defined into Work Packages.
Reprogramming	Replanning of the effort remaining in the contract, resulting in a new budget allocation which exceeds the contract budget base. The resulting baseline is called an Over Target Baseline (OTB).
Responsible Organization	A defined unit within program's organization structure that is assigned responsibility for accomplishing specific tasks.
Risk Register	Is a tool commonly used in project planning and organizational risk assessments. It is often referred to as a Risk Log. It is used for identifying, analyzing and managing risks.
Schedule Performance Index (SPI)	An efficiency rating reflecting how quickly or slowly project work is progressing. Measured as a ratio of work accomplished versus work planned for a given period of time. The formula for SPI is BCWP/BCWS.

Significant Variances	Those differences between planned and actual cost and schedule performance which require further review, analysis, or action. Appropriate thresholds are established as to the magnitude of variances which will require variance analysis.
Statistical Estimate at Completion	Is a single point estimate that can be quickly prepared and used to test the reasonableness of the current cost estimates and budget and to indicate when a comprehensive EAC should be prepared
To-Complete Performance Index (TCPI)	An efficiency rating that provides a projection of the anticipated performance required to achieve the EAC. TCPI indicates the future required cost efficiency needed to achieve a target EAC (Estimate At Complete). Any significant difference between TCPI and the CPI needed to meet the EAC should be accounted for by management in their forecast of the final cost.
Total Allocated Budget (TAB)	The sum of all budgets allocated to the contract. Total allocated budget consists of the performance measurement baseline and all management reserve. The total allocated budget will reconcile directly to the Contract Budget Base (CBB). Any differences will be documented as to quantity and cause.
Undistributed Budget (UB)	Budget applicable to contract effort which has not yet been identified to WBS elements at or below the lowest level of reporting to the Government.
Variance Analysis Report (VAR)	The internal report completed by the Control Account Manager and submitted, through the Intermediate Manager, to the program manager for those Control Accounts which have variances in excess of established thresholds.
Variances	(See Significant Variances).
Work Authorization Document (WAD)	A form used to formally authorize and budget work to the Control Account Manager. This document must include, as a minimum, the Control Account number, Statement of Work, scheduled start and finish dates, budget, and the identity of the CAM. It must be approved by Intermediate Manager, and be agreed to by the Control Account Manager.

Work Breakdown Structure (WBS)	A product-oriented, family-tree composed of hardware, software, services, data and facilities which results from system engineering efforts. A work breakdown structure displays and defines the product(s) to be developed and/ or produced and relates the elements of work to be accomplished to each other and to the end product. (1) Program WBS. The work breakdown structure that covers the acquisition of a specific defense material item and is related to contractual effort. A program work breakdown structure includes all applicable elements consisting of at least the first three levels of the work breakdown structure and extended by the program manager and /or contractor(s). A program work breakdown structure has uniform element terminology, definition, and placement in the family tree structure. (2) Contract WBS (CWBS) The complete WBS for a contract, developed and used by a contractor within the guidelines of MIL-Handbook 881 (latest revision) or NASA WBS Handbook (insert reference) or other customer guidelines and according to the contract work statement. It includes the approved work breakdown structure for reporting purposes and its discretionary extension to the lower levels by the contractor, in accordance with MIL-Handbook 881 and the contract work statement. It includes all the elements for the products (hardware, software, data, or services) which are the responsibility of the contractor.
Work Packages	Detailed short-span jobs, or material items, identified by the contractor for accomplishing work required to complete the contract. A Work Package has the following characteristics. 1. It represents units of work at levels where work is performed. 2. It is clearly distinguishable from all other work packages. 3. It is assignable to a single organizational element. 4. It has scheduled start and finish dates and, as applicable, interim milestones, all of which are representative of physical accomplishment. 5. It has a budget or assigned value expressed in terms of dollars, man-hours or other measurable units. 6. Its duration is limited to a relatively short span of time or it is subdivided by discrete value milestones to facilitate the objective measurement of work performed. 7. It is integrated with detailed engineering, manufacturing, or other schedules.

Work Package Budgets	Resources which are formally assigned by the CAM to accomplish a Work Package, expressed in dollars and/or hours.

Appendix 2 Supplemental EVM Implementation Guideline

Implementation of a 7 Principles of EVM system should be less expensive than if there was an ANSI/EIA-748. There is no need for the system to have to go through an EVM compliance review, plus the level of documentation should be streamlined.

The implementation should include:

- EVM Process flows that reflect how a company will build and maintain the EVM system. (EVM Procedures may also be included if the cost associated with them is reasonable)
- EVM engine tool and a schedule tool. It is not necessary to load the schedule tool, such as Microsoft Project, with resources. This adds an extra strep, additional costs and little to no value. It is recommended that all resource information be loaded in the EVM engine and leave the schedule tool to what it does best, measure progress through time (duration).
- The EVM Engine needs to be integrated with the company's accounting system.

Documentation needed for the Performance Measurement Baseline Review (PMBR)

- WBS Dictionary/Control Account Work Authorization Documentation
- Integrated Master Schedule
- Responsibility Assignment Matrix
- Control Account Plans
- PMB Log
- Baseline Revision Documents
- Risk Register

EVM IMPLEMENTATION COSTS

The cost for an implementation depends on the size of the contract and the tier level of EVM.

Tier 2 (projects greater than $25M)

Implementation costs should range $75K-$125K

Tier 3 (projects less than $25M)

Implementation costs should range ($50K - $100K)

EVM ENGINES/TOOLS

Depending on the size of the contract would predicate the level of functionality that would be needed. For Tier 2 contracts a larger, more robust EVM engine would be needed. For the Tier 3 small contracts MS Project or the MSP wrap-around would probably suffice although the more robust EVM engines can be used also.

Tier 2

Recommended that one of the larger and flexible EVM engines be utilized. The tool should have the flexibility to be able to download data from MS Project and be able to upload or input budget data to provide time-phased budget information down to the work package level. It should be

able to incorporate the companies Organization Breakdown Structure. It should be able to maintain baseline, actual costs, forecast and performance periodic data. It should be able to forecast Estimate to Complete with the ability to set up different rate tables if necessary. It should have the capability to use all earned value methodologies. It should be able to print many types of EVM reports that can provide information to the Control Account Managers (CAM) and Program Managers (PM), as well as, the Contract Performance Report (CPR) and the Control Account Plans (CAP) that are contract deliverables.

Tier 3

For Tier 3 projects, a company can certainly utilize an EVM engine as listed above. It may also use the less robust, less expensive Microsoft Project wrap-around tools of which there are several on the market or even use Microsoft Project with its limited but acceptable EVM function. These tools also will provide the CPR or data provided on a CPR for contract deliverable purposes.

EVM FACILITATION

EVM facilitation pertains to the monthly process to include:

- Schedule Status
- Integration of accounting data into EVM engine
- Run monthly reports for Control Account Managers (Tier 2)
- Prepare the monthly Contract Performance Report (CPR) Formats 1 and 5
- Run the Control Account Plans for both internal and external (contract requirement for Tier 2 projects)
- PMB Change Control

Depending on the size of contract, a contractor should have an EVM/cost analyst and schedule analyst for a Tier 2 contract and one combined cost/schedule analyst for a Tier 3 contract. The costs for a schedule analyst on a yearly basis for an employee hire should be equal to or less than $125K. For a cost analyst it should be equal to or less than $110K. If a company is bringing in a contractor to provide staff implementation the costs should be up to $125/hr for a schedule analyst and $110/hr for an EVM/cost analyst.

EVM CONSULTANTS

There may be the need to bring in consultants to help set up your EVM system and perhaps provide EVM staff augmentation to provide the monthly facilitation. Make sure that you shop around and get several quotes. Also make sure that the consultants understand the statement of work pertaining to the BARDA EVM requirements. Most EVM consultants are used to working with companies that have a requirement to implement an ANSI/748 compliant EVM system per the DoD requirements and it is important that they have an understanding of what is required in a 7 Principles EVM implementation so that they don’t propose much more complex EVM system than is needed. Please be advised that the government will only accept reasonable costs associated with implementing a 7 Principles of EVM system.

COST OF EVM

BARDA is working diligently to keep the costs of EVM implementation and facilitation at a reasonable level. Since the goal at BARDA is to provide an integrated, systematic approach to the development and purchase of the necessary vaccines, drugs, therapies, and diagnostic tools for public health medical emergencies, it is imperative that the funds for product development are used for that such purpose. BARDA expects the costs for implementation and facilitation of EVM to range 1%-2% of development budget. This is ratified by the white paper by Dr. Christenson titled “The Costs and Benefits of the Earned Value Management Process”.

Appendix 3 Sample EVM Documents

WBS 1.4.1.x Cardiac (QTc) Safety

Description

Study Title: "A Phase 1 study to assess the cardiovascular safety of intravenous (IV) Panaceomycin in volunteers" (Thorough QT Study)

We will conduct a thorough evaluation of the cardiac effect of Panaceomycin Injection via a randomized, double-blind crossover study. A total of 100 participants (18-22 per arm) will randomize to one of five study arms to receive in a double-blind fashion a single IV infusion of either Panaceomycin Injection 10 mg/kg, Panaceomycin Injection at a supra-therapeutic dose, ciprofloxacin (positive control), or placebo. 12-Lead digital ECGs will be collected in triplicate via Holter monitor from each participant during dosing. Seven days after dosing, participants will be re-randomized to receive another treatment. ECGs will be collected and analyzed. A full statistical analysis and expert ECG report will be generated. Serum PK samples will also be collected at ECG collection time points and analyzed to confirm exposure.

Targeted Outcome: No evidence of delay in cardiac repolarization induced by Panaceomycin as shown by analysis of the QT interval.

Subcontractors

Vendor	Area of Responsibility
Phase Research	o Study Documentation Design and Development o Clinical Monitoring: Includes site initiation, interim, and close-out monitoring visits, o Pharmacovigilence o Data Management: Includes build and maintenance of electronic case report forms (eCRFs); data query generation and resolution o Biostatistics o Medical Writing: o Project Management: The Project Manager will actively facilitate Phase Research's interaction with the research site and provide close monitoring oversight in conjunction with the assigned CRA. Project Management will also assist in the finalization of all applicable study documents and provide coordination between study vendors. o Pass-through Expenses Travel for CRA monitoring visits to clinical sites, shipping and printing costs o Investigator Grants
Energetics	Core Cardiac Lab
TBD	Clinical study site(s)
Pulse Tech	To provide Central Lab services
Analyx	To perform PK analyses
Claritron	To write the PK report
Obelisk	To label and distribute study drug product

Consultants

Joe Josephs	Internal Medical Monitor: Sponsor medical oversight
Rolf Xerd	Pharmacologist: Design and analysis consultation for PK parameters and analysis
Julie Simms	Clinical Trials Manager
Phil Thomas	Medical Writer
Claire Cools	SAS Programmer
Mary Doe	Clinical Contracts
Jim Dodds	Supply Chain Manager

Milestones, EV at Milestones

Consultants and Phase Project Management will earn value as Level of Effort activities. All other costs will earn value according to the schedule below.

Signed Study Protocol	10 %
First participant dosed	20 %
40 % Enrollment	35%
70% Enrollment	50%
Last participant procedure (Treatment phase)	60 %
Last participant follow-up	70 %
Database lock	80 %
Clinical Study Report	90 %
Transferred Trial Master File	100 %

Deliverables

1. Signed Study Protocol
2. Top-line data
3. Signed Clinical Study Report

External Dependencies

1. Top-line Data from an External Clinical Study Identifying Panaceomycin Maximum Tolerated Dose as a single dose in Humans. The Maximum Tolerable Dose will be defined in a study not included in the BARDA contract. This dose will be used in selecting the Supra-therapeutic dose in this Thorough QT Study.
2. Successful production of cGMP lot of Panaceomycin.
3. Enrollment and retention of study participants.

Sample WBS Dictionary

Work Authorization					
Project/Contract	BARDA			**WBS #**	1.1.6.2
WBS description	Program Management, Meetings and Control				
Authorization version #	1	**Schedule Start**	Oct 2010	**Scheduled Finish**	Sep 2012

Work Description
Achaogen staff will manage the integration and performance control of the program. For further detail, see description of scope for WBS 1.1.6.2

Budget	
Labor	$250,000
Subcontractors	$
Consultants	$
Materials	$
Travel	$
Total	**$250,000**

Approvals			
Control Account Manager	**Name:** Benjamin Gay	**Signature:**	**Date:**
Project Manager	**Name:** Ronald Smith	**Signature:**	**Date:**
Finance	**Name:** Denise Blessi	**Signature:**	**Date:**

Sample Work Authorization Document

	CAP:	1.1.1 Drug Production			Month End:		3/31/2011						
Control Account Performance													
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Total
BCWS		200	30	30	40	60	80	60	80	15	25	30	25	675
BCWP		10	190	60										
ACWP		12	190	60										
SV		-190	160	30										
CV		-2	0	0										
Resource Summary														
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Total
Labor		10	10	10	10	10	10	10	10	10	10	10	10	120
Sub DB			20	20	30									70
Sub DP						50	70	50	70					240
Sub Pack											5	20	15	40
Material		190												190
ODC										5	10			15
BCWS		200	30	30	40	60	80	60	80	15	25	30	25	675
Work Package Summary														
	EVM	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Total
Sub Contract Management	LOE	10	10	10	10	10	10	10	10	10	10	10	10	120
Purchase Materials	0/100	190												190
Manufacture Drug Susbtance	MS		20	20	30									70
Manufacture Drug Product	MS					50	70	50	70					240
Ship	Units									5	10			15
Package & Store	Units										5	20	15	40
BCWS		200	30	30	40	60	80	60	80	15	25	30	25	675

Sample Control Account Plan

Approved by OMB
0348-0046

Disclosure of Lobbying Activities

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure)

1. Type of Federal Action: a. contract ____ b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	**2. Status of Federal Action:** a. bid/offer/application _____ b. initial award c. post-award	**3. Report Type:** a. initial filing _____ b. material change **For material change only:** Year _____ quarter _____ Date of last report_____

4. Name and Address of Reporting Entity: ____ Prime _____ Subawardee Tier_____, if Known: **Congressional District,** *if known*:	**5. If Reporting Entity in No. 4 is Subawardee,** Enter Name and Address of Prime: **Congressional District,** *if known*:
6. Federal Department/Agency:	**7. Federal Program Name/Description:** CFDA Number, *if applicable*: _____
8. Federal Action Number, *if known:*	**9. Award Amount**, *if known:* **$**
10. a. Name and Address of Lobbying Registrant *(if individual, last name, first name, MI):*	**b. Individuals Performing Services** *(including address if different from No. 10a)* *(last name, first name, MI):*
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.	**Signature: _____** **Print Name: _____** **Title: _____** **Telephone No.: _____ Date: _____**
Federal Use Only	**Authorized for Local Reproduction** **Standard Form - LLL (Rev. 7-97)**

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.

2. Identify the status of the covered Federal action.

3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.

4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.

5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.

6. Enter the name of the federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.

7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.

8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitations for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Included prefixes, e.g., "RFP-DE-90-001."

9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.

10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

    (b) Enter the full names of the individual(s) performing services, and include full address if different from 10(a). Enter Last Name, First Name, and Middle Initial (MI).

11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

Exhibit 4.27

Confidential Materials omitted and filed separately with the
Securities and Exchange Commission. Double asterisks denote omissions.

LICENSE AND COMMERCIALIZATION AGREEMENT

by and between

SUMMIT (OXFORD) LTD

and

EUROFARMA LABORATÓRIOS S.A.

Dated as of December 18, 2017

Confidential

TABLE OF CONTENTS

SCHEDULES AND EXHIBITS

Schedule 1.45	Summit Patent Rights
Exhibit A	List of Required Documentation

LICENSE AND COMMERCIALIZATION AGREEMENT

THIS LICENSE AND COMMERCIALIZATION AGREEMENT (this "**Agreement**"), effective as of December 18, 2017 (the "**Effective Date**"), is entered into by and between **Summit (Oxford) Ltd**, a limited company incorporated in England (with registered number 04636431) whose registered office is at 136a Eastern Avenue, Milton Park, Abingdon, Oxfordshire, OX14 4SB, United Kingdom ("**Summit**") and **Eurofarma Laboratórios S.A.**, a company incorporated in Brazil (with registered number 61.190.096/0001-92), whose principal place of business is at Avenue Vereador José Diniz, 3465, Campo Belo, São Paulo/SP, Brazil ("**Eurofarma**").

RECITALS:

WHEREAS, Summit owns or controls certain key intellectual property relating to Ridinilazole (as defined below);

WHEREAS, Eurofarma is a pharmaceutical company that has expertise and capabilities in manufacturing and marketing antibiotics;

WHEREAS, Eurofarma desires to Commercialize Ridinilazole in the Eurofarma Territory (each as defined below); and

WHEREAS, Summit desires to grant Eurofarma a license to Commercialize Ridinilazole in the Eurofarma Territory;

NOW, **THEREFORE**, in consideration of the foregoing premises and the mutual covenants herein contained, the Parties hereby agree as follows:

1. DEFINITIONS

Unless specifically set forth to the contrary herein, the following terms, whether used in the singular or plural, shall have the respective meanings set forth below:

1.1. "**Accounting Standards**" means United States Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standards (IFRS), in each case as then current at the relevant time and as consistently applied by the applicable Person.

1.2. "**Affiliate**" means, with respect to a Person, any other Person which controls, is controlled by, or is under common control with the applicable Person. For purposes of this definition, "control" shall mean: (a) in the case of corporate entities, direct or indirect ownership of at least fifty percent (50%) of the stock or shares (or such lesser percentage which is the maximum allowed to be owned by a foreign corporation in a particular jurisdiction and is sufficient to grant the holder of such voting stock or interest the power to direct the management and policies of such Person) entitled to vote for the election of directors, or otherwise having the power to control or direct the affairs of such Person; and (b) in the case of non-corporate entities, direct or indirect ownership of at least fifty percent (50%) of the equity interest or the power to direct the management and policies of such non-corporate entities. Notwithstanding the foregoing, for purposes of this Agreement, Supera Farma Laboratórios S.A., a Brazilian company having a registered address at Avenida das Nações Unidas, 22.532, Bloco 4, Vila Almeida, São Paulo/SP, Brazil shall not be considered an Affiliate of Eurofarma.

1.3. "**Calendar Quarter**" means the respective periods of three (3) consecutive calendar months ending on March 31, June 30, September 30 and December 31 of each Calendar Year; provided that the first Calendar Quarter of the Term shall begin on the Effective Date and end on last day of the Calendar Quarter including the Effective Date and the last Calendar Quarter of the Term shall end on the last day of the Term.

1.4. "**Calendar Year**" means each successive period of twelve (12) months commencing on January 1 and ending on December 31; provided that the first Calendar Year of the Term shall begin on the Effective Date and end on the first December 31 thereafter and the last Calendar Year of the Term shall end on the last day of the Term.

1.5. "**Clinical Data**" means data arising from any Clinical Trial of any Licensed Product.

1.6. "**Clinical Trial**" means a human clinical trial of a product in any country.

1.7. "**Collaboration**" means the collaboration of the Parties in the Development, supply and Commercialization of Licensed Products under this Agreement.

1.8. "**Commercialization**" or "**Commercialize**" means any and all activities directed to marketing, promoting, distributing, importing, exporting, offering to sell or selling a product and activities directed to obtaining pricing and reimbursement approvals, as applicable.

1.9. "**Commercially Reasonable Efforts**" means, with respect to a Party, such efforts that are consistent with the efforts and resources normally used by such Party with respect to similar activities conducted on its own behalf, including, with respect to the Development, Manufacture and Commercialization of a Licensed Product, such efforts that are consistent with the efforts and resources normally used by such Party in relation to the Development, Manufacture and Commercialization of a pharmaceutical product or potential pharmaceutical product, as applicable, owned by it or to which it has exclusive rights, which is of similar market potential and at a similar stage in its development or product life as such Licensed Product, taking into account issues of safety and efficacy, product profile, the competitiveness of the marketplace, the regulatory structure involved and potential profitability (including pricing and reimbursement status achieved).

1.10. "**Competing Product**" means any antibiotic actively marketed for treatment of *Clostridium difficile* associated diarrhea.

1.11. "**Confidential Information**" means any and all confidential or proprietary information and data, including Summit Know-How and all other scientific, pre-clinical, clinical, regulatory, manufacturing, marketing, financial and commercial information or data, whether communicated in writing or orally or by any other method, that is provided by one Party or any of its Affiliates to the other Party or any of its Affiliates in connection with this Agreement. Summit Know-How is the Confidential Information of Summit. The terms of this Agreement are the Confidential Information of both Parties. All Information disclosed prior to the Effective Date by Summit or any of its Affiliates to Eurofarma or any of its Affiliates pursuant to the Two-Way Confidentiality Agreement by and between the Parties, dated as of October 14, 2015, as amended by Amendment No. 1, dated as of May 23, 2017 (the "**Confidentiality Agreement**") shall be considered

the Confidential Information of Summit. Notwithstanding the foregoing, "Confidential Information" shall exclude any information that:

(a) is known by the receiving Party or any of its Affiliates at the time of its receipt from the disclosing Party or any of its Affiliates, and not through a prior disclosure by the disclosing Party or any of its Affiliates, as documented by the receiving Party's business records;

(b) is known to the public before its receipt from the disclosing Party or any of its Affiliates, or thereafter becomes generally known to the public through no breach of this Agreement by the receiving Party or any of its Affiliates;

(c) is subsequently disclosed to the receiving Party or any of its Affiliates by a Third Party who is not under an obligation of confidentiality to the disclosing Party or any of its Affiliates; or

(d) is developed by the receiving Party or any of its Affiliates independently of Confidential Information received from the disclosing Party or any of its Affiliates, as documented by the receiving Party's business records.

1.12. "**Control**," "**Controls**" or "**Controlled by**" means, subject to Section 14.3, with respect to any Know-How, Patent Rights or other intellectual property rights, the possession of (whether by ownership or license, other than pursuant to this Agreement), and the ability of a Person or its Affiliates to assign, transfer, or grant access to, or to grant a license or sublicense of, such item or right as provided for herein without violating the terms of any agreement or other arrangement with any Third Party existing at the time such Person would be required hereunder to assign, transfer or grant another Person such access or license or sublicense; provided, however, that, if a Party obtains rights to any Know-How, Patent Rights or other intellectual property rights through any license agreement with any Third Party, such Party shall only be deemed to "Control" such Know-How, Patent Rights or other intellectual property rights, as applicable, for purposes of this Agreement, if the other Party agrees to be bound by all applicable obligations (other than obligations to make payments) set forth in such license agreement.

1.13. "**Cover**," "**Covering**" or "**Covers**" means, as to a Licensed Product and Patent Rights, that, in the absence of a license granted under, or ownership of, such Patent Rights, the manufacture, use, offer for sale, sale or importation of such Licensed Product would infringe such Patent Rights assuming the validity and enforceability thereof or, as to a pending claim included in such Patent Rights, the manufacture, use, offer for sale, sale or importation of such Licensed Product would infringe such Patent Rights if such pending claim were to issue in an issued patent.

1.14. "**Cumulative Net Sales**" means the aggregate sum of all Net Sales of all Licensed Products during the Term.

1.15. "**Development**," "**Developing**" or "**Develop**" means, with respect to a Licensed Product, all activities relating to the discovery, evaluation, research and preclinical, non-clinical and clinical development of such Licensed Product prior to or after receiving Regulatory Approval, and all regulatory activities in support of obtaining Regulatory Approval other than activities directed to obtaining pricing and reimbursement approvals.

1.16. "**Eurofarma Territory**" means Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, Dominican Republic, Uruguay and Venezuela.

1.17. "**Eurofarma Territory Target Enrollment**" means, with respect to the Global Pivotal Clinical Study, [**] Latin American patients enrolled in such Pivotal Clinical Study.

1.18. "**Field**" means all human uses.

1.19. "**Finished Drug Product**" means (i) the finished product formulation of a Licensed Product in bulk tablet form or (ii) the finished product formulation of a Licensed Product in blister packs.

1.20. "**First Commercial Sale**" means, with respect to a Licensed Product in a country, the first sale for end use or consumption of such Licensed Product in such country.

1.21. "**Global Pivotal Clinical Study**" means the Pivotal Clinical Studies conducted in both the Eurofarma Territory and the Summit Territory with respect to a Licensed Product.

1.22. "**Governmental Authority**" means any applicable government authority, court, tribunal, arbitrator, agency, department, legislative body, commission or other instrumentality of (a) any government of any country or territory, (b) any nation, state, province, county, city or other political subdivision thereof or (c) any arbitral or supranational body, including any Governmental Authority involved in granting approvals for the Development, Manufacturing or Commercialization of Licensed Products in or for the Eurofarma Territory.

1.23. "**ICH**" means International Conference on Harmonisation.

1.24. **"Investigator's Brochure"** means a compilation of preclinical and clinical data with respect to a new investigational drug that is proposed for filing with an applicable Governmental Authority and used to provide information to clinical investigators and applicable Governmental Authorities.

1.25. "**Know-How**" means all chemical or biological materials and other tangible materials, inventions, improvements, practices, discoveries, developments, data, information, technology, methods, protocols, formulas, knowledge, know-how, trade secrets, processes, assays, skills, experience, techniques and results of experimentation and testing, including pharmacological, toxicological and pre-clinical and clinical data and analytical and quality control data; provided, however, excluding in any event any Patent Rights.

1.26. "**Laws**" means all applicable laws, statutes, rules, regulations, orders, judgments, injunctions, ordinances or other pronouncements having the binding effect of law of any Governmental Authority.

1.27. "**Licensed Product**" means any product containing Ridinilazole as an active pharmaceutical ingredient.

1.28. "**Manufacturing**" or "**Manufacture**" means, as applicable, all activities associated with the production, manufacture, process of formulating, processing, filling, finishing, packaging, labeling, shipping, importing and storage of Licensed Products, including process development, process validation, stability testing, manufacturing scale-up, pre-clinical, clinical and commercial manufacture and analytical development, product characterization, quality assurance and quality control development, testing and release.

1.29. "**NDA**" means a New Drug Application, Marketing Authorization Application or similar application or submission filed with a Governmental Authority in a country or group of countries to obtain marketing approval for a biological, pharmaceutical or other therapeutic or prophylactic product in that country or in that group of countries.

1.30. "**Net Sales**" means the aggregate gross invoiced sales prices from sales of all units of Licensed Products sold by Eurofarma and its Related Parties to independent Third Parties after deducting, if not previously deducted, from the amount invoiced:

(a) trade, quantity and cash discounts, credits or allowances actually given;

(b) returns, rejections, recalls, rebates, chargebacks, discounts and other credits or allowances actually given;

(c) retroactive price reductions or billing corrections;

(d) value added, sales and use, excise and other similar taxes and surcharges, customary transportation and insurance, custom duties and other governmental charges, but excluding taxes on net income; and

(e) amounts previously included in Net Sales of such Licensed Products that are adjusted or written-off by Eurofarma or its Related Parties as uncollectible in accordance with the standard practices of Eurofarma or its Related Parties for writing off uncollectible amounts consistently applied; provided that if any such written-off amounts are subsequently collected, then such collected amounts shall be included in Net Sales in the period in which they are subsequently collected.

Such amounts shall be determined from the books and records of Eurofarma or its Related Parties, maintained in accordance with Accounting Standards.

In the case of any sale or other disposal for value, such as barter or counter-trade, of a Licensed Product, or part thereof, other than in an arm's length transaction exclusively for cash, Net Sales shall be calculated as above on the value of the non-cash consideration received or, if higher, the fair market price of such Licensed Product in the country of sale or disposal, as determined in accordance with Accounting Standards.

Notwithstanding the foregoing, the following will not be included in Net Sales: (1) sales between or among Eurofarma and its Related Parties, (but Net Sales shall include sales to the first Third Party (other than a Sublicensee) by Eurofarma or its Related Parties and shall also include sales to a Third Party Distributor (even if such Third Party Distributor is a Sublicensee)), (2) any resale of Licensed Product by a Third Party Distributor (even if such Third Party Distributor is a Sublicensee), (3) Licensed Products used as samples to promote additional Net Sales, in amounts consistent with normal business practices of Eurofarma and (4) Licensed Product sales for compassionate use, "named patient sales," or other equivalent systems, sales made in connection with clinical trials and product donations of Licensed Product, in each case, made at or below the price at which Summit supplies such Licensed Product to Eurofarma pursuant to Section 6.

1.31. "**Party**" means Eurofarma or Summit.

1.32. "**Patent Rights**" means (a) all issued patents (including extensions, restorations by existing or future extension or registration mechanism, including patent term adjustments, patent term extension, supplemental protection certificates or the equivalent thereof, substitutions, confirmations, re-registrations, re-examinations, and patents of addition), (b) patent applications (including all provisional applications, substitutions, requests for continuation, continuations, continuations-in-part, divisionals and renewals), (c) inventor's certificates and (d) and all equivalents of the foregoing in any country of the world.

1.33. "**Person**" shall mean any natural person, corporation, unincorporated organization, partnership, association, sole proprietorship, joint stock company, joint venture, limited liability company, trust or government, or any agency or political subdivision of any government, or any other similar entity.

1.34. "**Pivotal Clinical Study**" means a Clinical Study of a product that, if pre-specified primary endpoints are met, would demonstrate the safety and efficacy of such product as required to support the Regulatory Approval of such product in an applicable country or territory.

1.35. "**Price and Reimbursement Approval**" means the approval, license, registration or authorization of a Governmental Authority to determine or set the price or reimbursement level of a product.

1.36. "**Primary Endpoint**" means, with respect to the Global Pivotal Clinical Study, (a) that the Sustained Clinical Response in patients treated with Ridinilazole is shown to be statistically significantly superior to the Sustained Clinical Response in patients treated with vancomycin, in accordance with the statistical analysis plan for the Global Pivotal Clinical Study, or (b) solely to the extent required by any applicable Regulatory

Authority, such other primary endpoint that is agreed upon with the applicable Regulatory Authority(ies).

1.37. "**Product Trademark(s)**" means the Trademark(s) for use in connection with the distribution, marketing, promotion and sale of the Licensed Product(s). Product Trademarks specifically excludes the corporate names and logos of the Parties and their Affiliates. Product Trademarks include both the Summit Trademarks and the Eurofarma Trademarks.

1.38. "**Promotional Materials**" means written sales, promotion and advertising materials relating to Licensed Products.

1.39. "**Regulatory Approval**" means any and all approvals, licenses, registrations or authorizations of any Governmental Authority that are necessary for the marketing and sale of a product in a country or group of countries.

1.40. "**Regulatory Exclusivity**" means, with respect to a Licensed Product in a country, any exclusive marketing right, data protection or other exclusive right, other than a Patent Right, conferred by any Governmental Authority with respect to such Licensed Product in such country, including new drug exclusivity, new indication or use exclusivity, pediatric exclusivity or orphan drug exclusivity.

1.41. "**Related Party**" means a Party's Affiliates, permitted Sublicensees and, with respect to Summit, licensees and contractors, but, with respect to Eurofarma, excluding Third Party Distributors.

1.42. "**Ridinilazole**" means 2,2'-bis(4-pyridyl)-3H,3'H-5,5'-bibenzimidazole, tetrahydrate, and any isomer, racemate, salt, solvate, hydrate, metabolite, conjugate, ester or prodrug of the foregoing, and intermediates of any of the foregoing.

1.43. "**Sublicensee**" means a Third Party to whom Eurofarma grants a sublicense under any Summit Technology to Commercialize a Licensed Product in the Field pursuant to Section 7.2.

1.44. "**Summit Know-How**" means Know-How that is Controlled by Summit or its Affiliates during the Term that is reasonably necessary or useful for Eurofarma to Develop or Commercialize Licensed Products in the Field in the Eurofarma Territory.

1.45. "**Summit Patent Rights**" means those Patent Rights that are Controlled by Summit or its Affiliates during the Term that are reasonably necessary or useful to Develop or Commercialize Licensed Products in the Field in the Eurofarma Territory, including the Patent Rights identified on Schedule 1.45.

1.46. "**Summit Technology**" means, collectively, Summit Know-How and Summit Patent Rights.

1.47. "**Summit Territory**" means all countries and territories of the world other than the Eurofarma Territory.

1.48. "**Sustained Clinical Response**" means cure of *Clostridium difficile* associated diarrhea at assessment of cure visit, and no recurrence of *Clostridium difficile* associated diarrhea at [**] days after the end of treatment.

1.49. "**Tax**" means any present or future taxes, levies, imposts, duties, tariffs, charges, assessments or fees of any nature imposed by a Governmental Authority in the exercise of its taxing power (including interest, penalties and additions thereto).

1.50. "**Territory**" means (a) with respect to Summit, the Summit Territory and (b) with respect to Eurofarma, the Eurofarma Territory.

1.51. "**Third Party**" means an entity other than a Party and its Affiliates.

1.52. "**Third Party Distributor**" means any Third Party appointed by Eurofarma or any of its Related Parties to distribute, market and sell any Licensed Product, with or without packaging rights, in one or more countries in the Eurofarma Territory, in circumstances where such Third Party purchases its requirements of Licensed Product from Eurofarma or its Related Parties for resale but does not (a) make any royalty, milestone or profit share payment to Eurofarma or its Related Parties with respect to its resale of such Licensed Product or (b) assume primary responsibility for advertising, promotion and sales force activities for such Licensed Product in such countries.

1.53. "**Trademark**" means any trademark, trade name, service mark, service name, brand, domain name, trade dress, logo, slogan or other indicia of origin or ownership, including the goodwill and activities associated with each of the foregoing.

1.54. "**United States**" or "**U.S.**" means the United States of America and its territories, possessions and commonwealths.

1.55. "**Valid Claim**" means a claim of: (a) an issued and unexpired patent, which claim has not lapsed or been dedicated to the public, withdrawn, cancelled, abandoned, disclaimed, revoked or held unpatentable, unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction (which decision is unappealable or has not been appealed within the time allowed for appeal) and which has not been abandoned, disclaimed, denied or admitted to be invalid or unenforceable through reissue, re-examination or disclaimer or otherwise or (b) a patent application that has been pending less than seven (7) years from the date of filing of the earliest patent application from which such patent application claims priority, which claim has not been cancelled, withdrawn or abandoned or finally rejected by an administrative agency action from which no appeal can be taken; provided, however, that, if any such claim issues after the end of such seven (7) year period, it will upon such issuance again be a Valid Claim subject to clause (a) above.

1.56. **Additional Definitions**. Each of the following definitions is set forth in the section of this Agreement indicated below:

DEFINITION:	SECTION:
AAA	14.2.2(a)
Acquired Party	14.3
Acquirer	14.3
Acquirer Program	7.6
Acquisition	14.3
Acquisition Party	7.5.1
Additional CMC Study	3.8
Agreement	Preamble
Collaboration Manager	5.1
Commercial Supply Agreement	6.3
Competitive Infringement	12.3.1
Confidentiality Agreement	1.11
Defense Action	12.3.1
Effective Date	Preamble
Eurofarma	Preamble
Eurofarma Indemnitees	11.2
Eurofarma Territory Commercialization Plan	4.2.1
Eurofarma Trademarks	12.6.2
Global Branding Strategy	4.3.1
Indemnitee	11.4
Losses	11.1
Payee	8.8.2
Payor	8.8.2
Pharmacovigilance Agreement	3.9
Right of Reference	3.5.1
Summit	Preamble
Summit Indemnitees	11.1
Summit Trademarks	12.6.1
Term	13.1

2. DEVELOPMENT

2.1. **Overview**. Summit shall have the exclusive right to Develop Licensed Products; provided, however, that (a) Eurofarma will use Commercially Reasonable Efforts to assist Summit and each Summit Related Party or Third Party conducting Development of any Licensed Product on behalf of Summit in or for the Eurofarma Territory to identify appropriate centers for the Global Pivotal Clinical Study in the Eurofarma Territory and (b) Eurofarma will be responsible for filing NDAs and interacting with Governmental Authorities in the Eurofarma Territory as described in Section 3.1. For the avoidance of doubt, Summit shall have full control and authority over the Development of the Licensed Products, including by establishing the methods and means by which such Development is conducted.

2.2. **Global Pivotal Clinical Study**. Within [**] days after the Effective Date, Summit shall provide Eurofarma a high-level plan for the Global Pivotal Clinical Study. Summit shall provide [**] updates to Eurofarma of the progress of its efforts in conducting the Global

Pivotal Clinical Study, which shall summarize significant Development activities accomplished in the prior [**] in the process of conducting the Global Pivotal Clinical Study.

3. REGULATORY MATTERS.

3.1. Regulatory Filings and Interactions. Except as otherwise agreed by the Parties in writing, (a) Eurofarma will file with the applicable Governmental Authorities in the Eurofarma Territory all NDAs with respect to Licensed Products and will own such NDAs and all resulting Regulatory Approvals and (b) on a country-by-country and Licensed Product-by-Licensed Product basis in the Eurofarma Territory, beginning on the date that Eurofarma files the first NDA with respect to such Licensed Product in such country, Eurofarma will, as to such Licensed Product in such country, (i) oversee, monitor and coordinate all regulatory actions, communications and filings with, and submissions to, each Governmental Authority, (ii) be responsible for interfacing, corresponding and meeting with each Governmental Authority, (iii) be responsible for maintaining all regulatory filings and (iv) notify Summit in writing, including a brief description in English of the principal issues raised, of all material communications from Governmental Authorities within [**] days, provide Summit with a summary translation of such material communications in English as soon as reasonably possible and provide, if appropriate, a full translation of such material communications in English as soon as reasonably possible thereafter. Eurofarma will provide complete copies of any such original correspondence in their native language to Summit upon request. Eurofarma shall provide Summit with reasonable advance notice of all material, substantive meetings with the Governmental Authorities in the Eurofarma Territory pertaining to any Licensed Products, or with as much advance notice as practicable under the circumstances. Eurofarma shall use Commercially Reasonable Efforts, to the extent reasonably practicable, to permit Summit to have, at Summit's expense, one (1) mutually acceptable representative of Summit to attend material, substantive meetings with the Governmental Authorities in the Eurofarma Territory pertaining to any Licensed Product. Eurofarma shall furnish Summit with drafts of all copies of Eurofarma's filings and submissions for Regulatory Approval (including draft NDAs and orphan drug applications and designations) regarding any Licensed Product in the Eurofarma Territory in a timely manner in sufficient time prior to making such filings and submissions to allow Summit a reasonable opportunity to review and comment thereon and shall implement all of Summit's timely comments. In addition, Eurofarma shall provide Summit with (y) written notice of (i) all filings and submissions for Regulatory Approval regarding any Licensed Product in the Eurofarma Territory in a timely manner and (ii) all Regulatory Approvals obtained or denied for any Licensed Product within [**] days after such event; provided, however, that in all circumstances, Eurofarma shall inform Summit of such event prior to public disclosure of such event by Eurofarma, and (z) copies of Eurofarma's filings and submissions for Regulatory Approval (including NDAs and orphan drug applications and designations) regarding any Licensed Product in the Eurofarma Territory within a reasonable period of time after making such filings and submissions.

3.2. Regulatory Documentation. Summit shall provide Eurofarma, to the extent necessary for Eurofarma to fulfill its obligations under Section 3.1, with: (a) a copy of all Clinical Trial protocols and Investigator´s Brochures used in conducting Clinical Trials for the

Licensed Products by or on behalf of Summit; (b) the Clinical Data in Summit´s regulatory files arising from the Clinical Trials conducted for the Licensed Products by or on behalf of Summit; (c) all chemistry, manufacturing and controls data and Investigational Medicinal Product Dossiers for Licensed Products in Summit´s possession and Control; and (d) to the extent not already provided to Eurofarma, any correspondence from a Regulatory Authority to Summit which could reasonably be anticipated to have a material impact on the Development of the Licensed Products. Eurofarma has attached to this Agreement as Exhibit A a list of documentation that will, under legislation existing as of the Effective Date, need to be submitted to Regulatory Authorities in the Eurofarma Territory in order to obtain Regulatory Approval of the Licensed Products in the Eurofarma Territory. If changes in applicable legislation occur in the Eurofarma Territory at any time during the Term, Eurofarma shall use Commercially Reasonable Efforts to promptly inform Summit in writing of such changes in order for the Parties to discuss impacts and action plans, if necessary, including whether to amend Exhibit A. For the avoidance of doubt, nothing in this Section 3.2 shall require either Party to agree to amend Exhibit A for any reason. Provided that the global development of the Licensed Products is ongoing, Summit shall use Commercially Reasonable Efforts to fulfill all the requirements set forth in Exhibit A

3.3. **Product Changes**. Summit shall notify Eurofarma reasonably in advance of any planned changes to any Licensed Product specifications that may materially impact any Regulatory Approval of any Licensed Product that has been granted in the Eurofarma Territory so that Eurofarma may evaluate whether it is necessary to have any such changes submitted to the applicable Governmental Authorities in the Eurofarma Territory.

3.4. **Due Diligence.** Upon the completion of the Global Pivotal Clinical Study, the Parties agree that Eurofarma may review the Clinical Data arising out of the Global Pivotal Clinical Study in order to determine whether such Clinical Data support the filing of NDAs for Licensed Products in the Eurofarma Territory.

3.5. **Rights of Reference**.

3.5.1. **Grant to Summit**. Eurofarma hereby grants to Summit a "**Right of Reference**," as that term is defined in 21 C.F.R. § 314.3(b) (or any successor rule or analogous Law recognized outside of the United States), to, and a right to copy, access and otherwise use, all information and data (including all chemistry, manufacturing and controls information as well as data made, collected or otherwise generated in the conduct of any Clinical Studies or early access/named patient programs for the Licensed Products) included in any regulatory filing, Regulatory Approval, drug master file or other regulatory documentation (including orphan drug applications and designations) owned or controlled by Eurofarma or its Related Parties that relates to any Licensed Product, in each case in connection with Summit's or its Related Parties' (a) Development and Manufacture of Licensed Products throughout the Summit Territory and the Eurofarma Territory and (b) Commercialization of Licensed Products throughout the Summit Territory, and Eurofarma shall provide a signed statement to this effect, if requested by Summit, in accordance with 21 C.F.R. § 314.50(g)(3) (or any successor rule or analogous Law outside of the United States). Summit may extend the rights granted by Eurofarma to Summit under this Section 3.5.1 to its Related Parties.

3.5.2. **Grant to Eurofarma**. Summit hereby grants to Eurofarma a Right of Reference to, and a right to copy, access and otherwise use, all information and data (including all chemistry, manufacturing and controls information as well as data made, collected or otherwise generated in the conduct of any Clinical Studies or early access/named patient programs for the Licensed Products) included in any regulatory filing, Regulatory Approval, drug master file or other regulatory documentation (including orphan drug applications and designations) owned or controlled by Summit or its Related Parties that relates to any Licensed Product, in each case in connection with Eurofarma's or its Related Parties' Commercialization of Licensed Products in the Eurofarma Territory, and Summit shall provide a signed statement to this effect, if requested by Eurofarma, in accordance with 21 C.F.R. § 314.50(g)(3) (or any successor rule or analogous Law outside of the United States), to the extent required for any Eurofarma regulatory filing with respect to any Licensed Product in the Eurofarma Territory. Eurofarma may extend the rights granted by Summit to Eurofarma under this Section 3.5.2 to its Related Parties.

3.6. **Regulatory Costs**. Eurofarma will be responsible for all costs incurred in connection with Eurofarma's regulatory activities in support of obtaining any Regulatory Approval for the Licensed Products in the Eurofarma Territory, including the cost of preparing and submitting any NDA with respect to a Licensed Product or interacting with Governmental Authorities with respect to any Regulatory Approvals in the Eurofarma Territory.

3.7. **Regulatory Timings.** Eurofarma shall use Commercially Reasonable Efforts to file NDAs for Licensed Products in Brazil, Mexico and Argentina within the earlier of (a) [**] months after Summit files the first NDA for a Licensed Product in the Summit Territory or (b) within [**] months after Summit receives Regulatory Approval of the first Licensed Product in the Summit Territory.

3.8. **Additional CMC Studies; Additional Regulatory Requirements.** Summit shall be responsible for conducting, at its expense, any chemistry, manufacturing and control (CMC) study required by any applicable Governmental Authority in any country in the Eurofarma Territory for the submission of an NDA for any Licensed Product in such country to the extent such study is listed on Exhibit A to this Agreement. If changes in applicable legislation occur in the Eurofarma Territory and any applicable Governmental Authority requests, for any Licensed Product, an additional CMC study not included in Exhibit A (an "**Additional CMC Study**"), the Parties shall discuss in good faith whether to conduct such Additional CMC Study and how to apportion the costs of conducting such Additional CMC Study. Eurofarma shall be responsible for meeting any requirements of any Governmental Authority in any country in the Eurofarma Territory that arise after Regulatory Approval for the first Licensed Product is granted in such country, at Eurofarma's cost, and Summit shall advise Eurofarma, at Eurofarma´s cost and prior written request, in meeting such post-registration requirements; provided, however, that Eurofarma may not conduct any Development of any Licensed Product (including any Additional CMC Study of any Licensed Product) without Summit's prior written consent. If Summit permits Eurofarma to conduct any Development of any Licensed Product in the Eurofarma Territory (including any Additional CMC Study of any Licensed Product), then Eurofarma shall (a) ensure that such Development does not

interfere with any Development, Manufacture or Commercialization of any Licensed Product in the Summit Territory and (b) provide Summit with a copy of, and a sublicensable license and right to use in the Development, Manufacture or Commercialization of any Licensed Product in the Summit Territory, all data (including all Clinical Data) arising out of such Development.

3.9. **Pharmacovigilance**. Within [**] months after the Effective Date, or such later time as may be mutually agreed by the Parties, but in any event prior to the First Commercial Sale of any Licensed Product in the Eurofarma Territory, the Parties will develop and agree in writing upon a pharmacovigilance agreement ("**Pharmacovigilance Agreement**") that will include safety data exchange procedures governing the coordination of collection, investigation, reporting and exchange of information concerning any adverse experiences and any product quality and product complaints involving adverse experiences related to Licensed Products, sufficient to enable each Party (and its respective Related Parties, if any) to comply with its legal and regulatory obligations. Unless otherwise agreed by the Parties, the Pharmacovigilance Agreement will assign responsibility for maintaining the global safety database for each Licensed Product to Summit and will permit Eurofarma to maintain its own safety database, in addition to the global safety database maintained by Summit, in the Eurofarma Territory. The Pharmacovigilance Agreement will contain terms no less stringent than those required by ICH or other applicable guidelines in order to allow the Parties and their respective Related Parties to meet the applicable regulatory and legal requirements regarding the management of safety data in their respective Territories.

4. COMMERCIALIZATION OF THE LICENSED PRODUCTS

4.1. **Responsibility, Cost and Diligence**. Subject to the terms and conditions of this Agreement, Eurofarma shall be solely responsible, at its expense, for all Commercialization activities relating to Licensed Products in the Field in the Eurofarma Territory. Eurofarma shall use Commercially Reasonable Efforts to Commercialize Licensed Products in each country in the Eurofarma Territory. Summit shall use Commercially Reasonable Efforts to provide Eurofarma with existing information and documents in its Control that are relevant and necessary for Eurofarma to carry out its Commercialization obligations under this Agreement relating to Licensed Products in the Field in the Eurofarma Territory.

4.2. **Commercialization Plans and Information**.

4.2.1. **Eurofarma Commercialization Plan**. No less than [**] months in advance of the reasonably expected first Regulatory Approval in the Eurofarma Territory with respect to a Licensed Product, and on [**] basis thereafter, Eurofarma shall prepare and deliver to Summit for review a reasonable written plan that summarizes the Commercialization activities to be undertaken with respect to Licensed Products in the Eurofarma Territory in the next [**] and, to the extent commercially reasonable, Eurofarma's plans to Commercialize Licensed Products in countries in the Eurofarma Territory in which Eurofarma is not then Commercializing Licensed Products, and the dates by which such activities are targeted to be accomplished (the "**Eurofarma Territory Commercialization Plan**"). The Eurofarma Territory Commercialization Plan shall subsequently be updated and modified by Eurofarma, from time to

time at its discretion and no less frequently than [**], based upon, among other things, Eurofarma's Commercialization activities with respect to Licensed Products in the Eurofarma Territory, a copy of which updated plan Eurofarma will promptly provide to Summit. The Eurofarma Territory Commercialization Plan and each modification thereto shall be consistent with Eurofarma's diligence obligations under Section 4.1. Summit will use Commercially Reasonable Efforts to provide advice to Eurofarma with respect to the preparation and modification of the Eurofarma Territory Commercialization Plan, such as providing existing, relevant and necessary technical, commercial and promotional information and material in Summit's Control. Nothing in this 4.2.1 shall require Summit to create any new information or material.

4.3. Advertising and Promotional Materials.

4.3.1. Global Branding. Summit shall prepare (and thereafter modify and update at its discretion) a global branding strategy (including global positioning, messages, logo, colors and other visual branding elements) for Licensed Products worldwide (the "**Global Branding Strategy**").

4.3.2. Eurofarma. Eurofarma will be responsible for the creation, preparation, production, reproduction and filing with the applicable Governmental Authorities, of relevant Promotional Materials for use in the Eurofarma Territory. All such Promotional Materials will be (a) compliant with applicable Law, (b) consistent with the Eurofarma Territory Commercialization Plan and (c) consistent with the Global Branding Strategy. Eurofarma will submit representative samples of its Promotional Materials developed by it for use in the Eurofarma Territory to Summit for its review and discussion at least [**] months prior to the First Commercial Sale of the first Licensed Product in the Eurofarma Territory, and at least [**] thereafter (or more frequently if reasonably requested by Summit). Eurofarma shall consider in good faith any timely comments Summit may have with respect to such Promotional Materials, but, subject to the requirements of Sections 4.3.2(a)-(c), shall have final decision-making authority with respect to such Promotional Materials.

4.4. Reporting Obligations. Eurofarma shall report to Summit in writing, by no later than each [**] following the first Regulatory Approval of a Licensed Product in the Field in the Eurofarma Territory (for the period ending [**] of the prior [**]), summarizing Eurofarma's Commercialization activities and resources expended for Licensed Products performed to date (or updating such report for activities performed since the last such report was given hereunder, as applicable). In addition, Eurofarma shall provide Summit with written notice of the First Commercial Sale of each Licensed Product in the Eurofarma Territory within [**] days after such event; provided, however, that in all circumstances Eurofarma shall inform Summit of such event prior to public disclosure of such event by Eurofarma. Eurofarma shall provide such other information to Summit as Summit may reasonably request and shall keep Summit reasonably informed of Eurofarma's Commercialization activities with respect to Licensed Products.

4.5. **Sales and Distribution**. Each Party and its Related Parties shall be responsible for booking sales and shall warehouse and distribute Licensed Products in its Territory. If a Party receives any orders for any Licensed Product in or for the other Party's Territory, then it shall refer such orders to the other Party. Moreover, each Party and its Related Parties shall be solely responsible for handling all returns of Licensed Products sold in its Territory, as well as all aspects of Licensed Product order processing, invoicing and collection, distribution, inventory and receivables of Licensed Products sold in its Territory.

4.6. **Recalls, Market Withdrawals or Corrective Actions**.

4.6.1. **Responsibility.** In the event that any Governmental Authority issues or requests a recall or takes a similar action in connection with Licensed Products in the Eurofarma Territory, or in the event either Party determines that an event, incident or circumstance has occurred that may result in the need for a recall, market withdrawal or stock recovery of Licensed Products in the Eurofarma Territory, the Party notified of such recall or similar action, or the Party that desires such recall or similar action, shall, within [**], and in all cases prior to the execution of such recall, market withdrawal or stock recovery, advise the other Party thereof by telephone, facsimile or e-mail (except in the case of a government mandated recall, when such Party may not provide such advance notice but shall notify the other Party as soon as possible). Eurofarma, in consultation with Summit, shall decide whether to conduct a recall in the Eurofarma Territory and the manner in which any such recall shall be conducted (except in the case of a government mandated recall, when Eurofarma may act without such advance consultation but shall notify Summit as soon as possible). Eurofarma shall be responsible for the execution of any such recall in the Eurofarma Territory, and in each such case Summit shall take such actions as reasonably requested by Eurofarma in connection therewith and otherwise reasonably cooperate in all such efforts. Except as otherwise provided in the Commercial Supply Agreement, Eurofarma shall bear the expense of any such recall in the Eurofarma Territory, provided, however, that Summit shall reimburse Eurofarma for the expense (including expenses for importation, logistics, taxes, notification, destruction, and return of the affected Licensed Product and any refund to customers of amounts paid for such Licensed Product) of any such recall in the Eurofarma Territory to the extent such recall is the result of a Manufacturing defect in Licensed Product supplied by (or on behalf of) Summit to Eurofarma. In case of any significant Manufacturing defect of any Licensed Product supplied to Eurofarma by Summit, Summit shall also be responsible for providing Eurofarma with replacement Licensed Product within [**] months, at its own cost and expense. In addition, Summit will make available all of its pertinent records that may be reasonably requested by Eurofarma in order to effect a recall in the Eurofarma Territory.

4.6.2. Customer Interactions.

4.6.2.1. Eurofarma shall be responsible for negotiating the reimbursement or replacement of any Licensed Product with customers in the Eurofarma Territory in case of recall of any Licensed Product due to technical and/or quality issues. Eurofarma shall deliver to Summit samples of defective (or allegedly defective) Licensed Products supplied by (or on behalf of) Summit to Eurofarma for investigation. Subject to the immediately preceding sentence, Eurofarma may also deliver samples defective (or allegedly defective) Licensed Products to Eurofarma Quality Control, located in Itapevi. Eurofarma Quality Control may contact Summit to request reasonable assistance in Eurofarma's investigation process, if necessary.

4.6.2.2. The Eurofarma call center shall be responsible for contacting applicable customers in the Eurofarma Territory based on the investigative reports created by the Parties' respective quality control departments.

4.6.2.3. In the event of any recall or any similar action related to any Licensed Product in the Eurofarma Territory, Eurofarma shall be responsible for corresponding with customers in the Eurofarma Territory. Summit shall provide reasonable support to Eurofarma with respect to such correspondence, as necessary and as requested by Eurofarma in writing.

4.7. Commercial Expenses. Except where otherwise specifically set forth in this Agreement, each Party shall bear all costs and expenses incurred in connection with its Commercialization of Licensed Products in its Territory.

4.8. Ex-Territory Sales; Export Monitoring.

4.8.1. Ex-Territory Sales. Subject to applicable Law, neither Party shall engage in any advertising or promotional activities relating to any Licensed Product directed primarily to customers or other buyers or users of such Licensed Product located outside its Territory or accept orders for Licensed Products from or sell Licensed Products into such other Party's Territory for its own account.

4.8.2. Export Monitoring. Subject to Section 6, each Party and its Related Parties will use Commercially Reasonable Efforts to monitor and prevent exports of Licensed Products from its own Territory for Commercialization in the other Party's Territory using methods commonly used in the industry for such purpose, and shall promptly inform the other Party of any such exports of Licensed Products from its Territory, and the actions taken to prevent such exports. Each Party agrees to take reasonable actions requested in writing by the other Party that are consistent with Law to prevent exports of Licensed Products from its Territory for Commercialization in the other Party's Territory.

5. COLLABORATION MANAGEMENT

5.1. **Collaboration Managers**. Each Party shall designate a Collaboration manager to serve as a primary point of contact for the other Party under the Collaboration (the "**Collaboration Manager**"). Each Party may change its Collaboration Manager at any time in its sole discretion with written notice to the other Party.

5.2. **Meetings**. The Parties shall meet to discuss the Collaboration in accordance with a schedule established by mutual written agreement of the Parties, but no less frequently than [**] during the Term, with the location for such meetings alternating between Summit and Eurofarma facilities (or such other locations as are mutually agreed by the Parties). Alternatively, the Parties may meet by means of teleconference, videoconference or other similar communications equipment, but at least [**] shall be conducted in person. Each Party shall bear its own expenses relating to attendance at such meetings by its representatives. At Summit's written request, Eurofarma agrees to renegotiate this Section 5.2 in good faith to the extent necessary to involve any Summit Related Parties conducting Development, Manufacture or Commercialization of any Licensed Product in the Summit Territory.

6. MANUFACTURE AND SUPPLY OF THE LICENSED PRODUCTS

6.1. **Supply Obligations**. From and after the Effective Date, subject to the Commercial Supply Agreement once entered into pursuant to Section 6.3, (a) Summit will use Commercially Reasonable Efforts, either itself or through Third Parties, to Manufacture Finished Drug Product meeting all applicable product specifications as filed in the applicable regulatory filings, in accordance with applicable current Good Manufacturing Practices and equivalent Laws outside the United States, including in the Eurofarma Territory, and supply to Eurofarma Finished Drug Product in quantities that are reasonably sufficient for the conduct of Commercialization by Eurofarma with respect to the Eurofarma Territory under the Eurofarma Territory Commercialization Plan and (b) Eurofarma shall purchase the Licensed Product exclusively from Summit and, with respect to Commercialization of Licensed Products in the Eurofarma Territory, Summit shall supply the Licensed Product exclusively to Eurofarma in the Eurofarma Territory during the Term of this Agreement.

6.2. **Transfer Price.** Beginning with the date on which Summit first supplies Finished Drug Product to Eurofarma pursuant to Section 6.1 until the end of the Calendar Year in which Eurofarma obtains the first Regulatory Approval for a Licensed Product in the Eurofarma Territory, Eurofarma shall pay to Summit an amount equal to [**] U.S. Dollars ($[**]) per tablet of Licensed Product supplied by Summit to Eurofarma in blister packs. At Eurofarma's written request, Summit shall supply the Licensed Product in bulk tablets, passing to Eurofarma any saving Summit makes through providing in bulk rather than in blisters and using as reference the amount of [**] U.S Dollars ($[**]) per tablet in blister pack. Both Parties shall discuss and agree in good faith on detailed supply conditions in the Commercial Supply Agreement. In each subsequent Calendar Year in which Summit supplies Finished Drug Product to Eurofarma pursuant to Section 6.1, the amount that Eurofarma shall pay to Summit per tablet of Licensed Product shall increase by [**] percent ([**]%) of the amount paid by Eurofarma to Summit per tablet of Licensed Product in the previous Calendar Year. All Finished Drug Product provided by Summit to Eurofarma shall be delivered FOB (Incoterms 2010) to a location identified

by Summit in advance in writing. For the avoidance of doubt, Summit shall have no obligation to clear any Finished Drug Product for import into any country in the Eurofarma Territory, pay any import duty with respect to the importation of any Finished Drug Product into any country in the Eurofarma Territory or carry out any import customs formalities with respect to the importation of any Finished Drug Product into any country in the Eurofarma Territory. The Parties agree to discuss in good faith the pricing and volumes for the Licensed Products in the event that there is a significant variation in any applicable exchange rate, a significant rise or reduction in the cost of any applicable raw materials or a significant change in any applicable market that could significantly impact the Commercialization of the Licensed Products in the Eurofarma Territory. For the avoidance of doubt, nothing in this Section 6.2 shall require either Party to amend any provision of this Agreement or the Commercial Supply Agreement or to enter into any other agreement.

6.3. **Commercial Supply Agreement**. The Parties will negotiate in good faith and enter into a supply agreement for commercial supply of Licensed Products and a related quality agreement (collectively, the "**Commercial Supply Agreement**") within [**] months following the Effective Date, which Commercial Supply Agreement will be consistent with the terms set forth in Section 6.1 and Section 6.2 with respect to commercial supply of Licensed Products and will contain other customary terms. When the Parties enter into the Commercial Supply Agreement, the terms of such Commercial Supply Agreement shall supersede the terms set forth in Section 6.1 and Section 6.2. Summit shall provide an initial draft of the Commercial Supply Agreement within [**] months of the signing of this Agreement.

6.4. **Technology Transfer.** If, at any time during the Term, Summit anticipates or determines that it will not be able to, or anticipates or determines that it will not, continue supplying Eurofarma with Licensed Products for Eurofarma's Commercialization of Licensed Products in the Eurofarma Territory, Summit shall promptly notify Eurofarma thereof, and the Parties shall negotiate in good faith a plan to transfer from Summit or its applicable Third Party supplier(s) to Eurofarma or its applicable Third Party supplier(s) all Know-How Controlled by Summit or its Affiliates that would be needed for Eurofarma or its applicable Third Party supplier(s) to Manufacture the Licensed Products for Eurofarma's Commercialization of the Licensed Products in the Field in the Eurofarma Territory.

7. LICENSES; EXCLUSIVITY

7.1. **License Grant to Eurofarma**. Subject to the terms and conditions of this Agreement, Summit hereby grants Eurofarma a non-transferable (except as provided in Section 14.1), sublicensable (subject to Section 7.2), exclusive (even as to Summit) license under the Summit Technology to Commercialize Licensed Products in the Field in the Eurofarma Territory.

7.2. Sublicensing Terms.

7.2.1. Permitted Sublicensees. Subject to the requirements of this Section 7.2, Eurofarma shall have the right to sublicense any of its rights under Section 7.1 to any of its Affiliates or to any Third Party, subject to Summit's prior written consent.

(a) Sublicense Agreements. Each sublicense granted by Eurofarma pursuant to this Section 7.2 shall be subject and subordinate to the applicable terms and conditions of this Agreement and shall contain terms and conditions consistent with those in this Agreement. Eurofarma shall promptly provide Summit with a copy of the fully executed sublicense agreement covering any sublicense granted to an Affiliate or a Third Party hereunder. Without limitation, each sublicense agreement shall contain the following provisions: (i) a requirement that the Sublicensee comply with the confidentiality and non-use provisions of Section 9 with respect to Summit's Confidential Information, (ii) a requirement that the Sublicensee maintain applicable records and submit applicable sales or other reports to Eurofarma to the extent necessary or relevant to the reports required to be made or records required to be maintained under this Agreement, (iii) a requirement that the Sublicensee comply with the exclusivity obligations set forth in Section 7.4 as though it were an Affiliate of Eurofarma, (iv) an obligation to assign to Summit all improvements to Summit Technology in accordance with Section 12.1, (v) the audit requirements set forth in Section 8.4 and (vi) an obligation to participate in the safety reporting procedures set forth in the Pharmacovigilance Agreement.

(b) Sublicensee Breach. If Eurofarma becomes aware of any material breach of any term of any sublicense by any Eurofarma Sublicensee that interferes with Eurofarma's compliance with the terms of this Agreement, then Eurofarma shall promptly notify Summit of the particulars of the same and shall use Commercially Reasonable Efforts to cause the Sublicensee to comply with all of the terms of the sublicense agreement necessary for Eurofarma's compliance with the terms of this Agreement. In the event that (i) the Sublicensee has failed to cure a material breach within [**] days after notice of such breach and (ii) such material breach also constitutes a material breach of this Agreement, Eurofarma shall terminate the sublicense agreement at the request of Summit. Notwithstanding any sublicense, Eurofarma shall remain primarily liable to Summit for the performance of all of Eurofarma's obligations under, and Eurofarma's compliance with all terms and conditions of, this Agreement.

7.3. No Implied Rights. Except as otherwise expressly provided in this Agreement, under no circumstances shall a Party, as a result of this Agreement, obtain any rights or licenses in any Know-How, Patent Rights or other intellectual property rights of the other Party.

7.4. **Exclusivity**. During the Term, other than as part of the Collaboration, neither Eurofarma nor any of its Affiliates shall, itself or with or through any Third Party, without the prior written consent of Summit, engage in any Commercialization of any Competing Product in the Eurofarma Territory or the Summit Territory. Likewise, during the Term, other than as part of the Collaboration, neither Summit nor any of its Affiliates shall, itself or with or through any Third Party, without the prior written consent of Eurofarma, engage in any Commercialization of any Competing Product in the Eurofarma Territory.

7.5. **Competing Product Acquisitions**.

7.5.1. **Options**. If, during the term of the exclusivity covenant in Section 7.4, a Party or any of its Affiliates acquires a Third Party, or Eurofarma or any of its Affiliates is acquired by a Third Party, (in each case, whether such acquisition occurs by way of a purchase of assets, merger, consolidation or similar transaction) (the Party or Affiliate acquiring or acquired by such Third Party, the "**Acquisition Party**") and where such Third Party is, at the time of such acquisition, actively Commercializing a Competing Product in a manner that, if performed by the Acquisition Party, would violate Section 7.4, unless the Parties agree otherwise in writing, then the Acquisition Party, or its applicable Affiliate, will (with respect to the applicable Competing Product), at its option and no later than [**] days following the date of consummation of the relevant merger, consolidation or acquisition, notify the other Party in writing of its determination to either:

(a) divest, or cause the relevant Affiliate to divest, whether by license or otherwise, its interest in the Competing Product, to the extent necessary to be in compliance with Section 7.4;

(b) terminate the Commercialization of the Competing Product, to the extent necessary to be in compliance with Section 7.4; or

(c) if the Acquisition Party is Eurofarma, terminate this Agreement pursuant to Section 13.2.1.

7.5.2. **Divestiture or Termination**. If the Acquisition Party notifies the other Party in writing that it or its relevant Affiliate intends to divest such Competing Product or terminate either this Agreement (if the Acquisition Party is Eurofarma) or the Commercialization of the Competing Product as provided in Section 7.5.1, then the Acquisition Party or its relevant Affiliate will effect the consummation of such divestiture within [**] months or effect such termination within [**] months, subject to compliance with applicable Law (as applicable), after the consummation of the relevant merger, consolidation or acquisition contemplated in Section 7.5.1, and will confirm to the other Party in writing when such divestiture or termination has been completed. The Acquisition Party will keep the other Party reasonably informed of its efforts and progress in effecting such divestiture or termination until it is completed.

7.6. **Acquirers.** If, during the Term, Summit or any of its Affiliates is Acquired by a Third Party (whether such Acquisition occurs by way of a purchase of assets, merger, consolidation, change of control or otherwise), then, notwithstanding anything to the contrary in Section 7.4, the Third Party acquiring Summit or such Affiliate(s) shall be permitted to conduct activities that would, if performed by Summit or any of its Affiliates, cause Summit or any of its Affiliates to violate Section 7.4 (any such activities, an "**Acquirer Program**") (and such Acquirer Program will not constitute a violation of Section 7.4); provided that (a) none of the Summit Technology is used in such Acquirer Program, (b) no Confidential Information of Eurofarma is used in such Acquirer Program, and (c) the activities required under this Agreement are conducted separately from any activities directed to such Acquirer Program, including by the maintenance of separate lab notebooks and records (password-protected to the extent kept on a computer network) and the use of separate personnel working on each of the activities under this Agreement, and the activities covered under such Acquirer Program (except that this requirement shall not apply to personnel who have senior research management roles and not project level research roles, provided such personnel in senior research management roles are not directly involved in the day-to-day activities under such Acquirer Program).

7.7. **Government Rights.** Eurofarma understands that Summit Technology may have been or may be developed under a funding agreement with a Governmental Authority and, if so, that a Governmental Authority may have certain rights relative thereto. This Agreement is made subject to any such rights of any Governmental Authority under any such agreement or any applicable Law. In particular (but without limitation), notwithstanding anything to the contrary herein, the rights and licenses granted by Summit to Eurofarma in this Agreement are subject to any such rights of any applicable Governmental Authority. Without limiting the foregoing, Eurofarma acknowledges that, to the extent applicable, the U.S. federal government retains (a) unlimited rights to all government-funded data within the Summit Technology, as set forth in 48 C.F.R. Part 27, Subpart 27.4 and 48 C.F.R. § 52.227-14 and (b) a royalty-free, non-exclusive, non-transferable license to practice or have practiced, and march-in rights with respect to, any government-funded invention within the Summit Technology, as set forth in 48 C.F.R. § 52.227-11 and 35 U.S.C. §§ 200-212, and the regulations promulgated thereunder. Any rights to any such government-funded data or invention(s) granted hereunder, which are greater than permitted by 48 C.F.R. Part 27, Subpart 27.4; 48 C.F.R. § 52.227-14; 48 C.F.R. § 52.245-1; 48 C.F.R. § 52.227-11 or 35 U.S.C. §§ 200-212, as applicable, are subject to modification as required to conform to the provisions of those Laws.

8. FINANCIAL TERMS

8.1. **Upfront Fee**. In consideration for the exclusive right for Eurofarma to Commercialize the Licensed Products in the Eurofarma Territory under this Agreement, on the Effective Date, Eurofarma shall pay Summit a non-refundable, non-creditable initial payment of Two Million Five Hundred Thousand U.S. Dollars ($2,500,000).

8.2. **Development Milestone Fees Under License**. Subject to the terms and conditions of this Agreement, in partial consideration for the rights and license granted hereunder, Eurofarma shall make the non-refundable, non-creditable milestone payments to Summit set forth in TABLE 8.2 below, each payable once, no later than [**] days after the earliest

date on which Eurofarma becomes aware that the corresponding milestone event has first been achieved with respect to the first Licensed Product to achieve such milestone event.

TABLE 8.2: First Licensed Product	
Milestone Event	**Milestone Payment**
(i) Achievement of [**] of the Eurofarma Territory Target Enrollment in the Global Pivotal Clinical Study	[**]
(ii) Achievement of [**] of the Eurofarma Territory Target Enrollment in the Global Pivotal Clinical Study	[**]
(iii) Achievement of [**] of the Eurofarma Territory Target Enrollment in the Global Pivotal Clinical Study	[**]
(iv) Achievement of the Primary Endpoint in the Global Pivotal Clinical Study	$1,000,000
(v) Receipt of Price and Reimbursement Approval for a Licensed Product in [**]	$1,200,000
(vi) First Commercial Sale of a Licensed Product in [**]	[**]
(vii) First Commercial Sale of a Licensed Product in [**]	[**]

8.2.1. **Deemed Achievement of Target Enrollment and Primary Endpoint**. If Eurofarma has not paid to Summit a milestone payment set forth in row (iii) of TABLE 8.2, and a milestone event set forth in row (v), (vi) or (vii) of TABLE 8.2 occurs, then, upon the occurrence of such milestone event set forth in such later row, Eurofarma shall pay to Summit the milestone payment set forth in row (iii) of TABLE 8.2. If Eurofarma has not paid to Summit a milestone payment set forth in row (iv) of TABLE 8.2, and a milestone event set forth in row (v), (vi) or (vii) of TABLE 8.2 occurs, then, upon the occurrence of such milestone event set forth in such later row, Eurofarma shall pay to Summit the milestone payment set forth in row (iv) of TABLE 8.2.

8.2.2. **Events**. Eurofarma shall provide Summit with written notice of the achievement by Eurofarma or any of its Related Parties of any milestone event set forth in this Section 8.2 within [**] days after such event. Summit shall provide Eurofarma with written notice of the achievement by Summit or any of its Related Parties of any milestone event set forth in this Section 8.2 within [**] days after such event.

8.3. **Sales Milestone Fees**. Subject to the terms and conditions of this Agreement, Eurofarma shall make the non-refundable, non-creditable milestone payments to Summit set forth in TABLE 8.3 below, within [**] days after the end of the Calendar Quarter in which the corresponding milestone event has first been achieved by Eurofarma or its Related Parties with respect to Licensed Products in the Eurofarma Territory.

TABLE 8.3: Eurofarma Territory Sales Milestone Fees	
Milestone Event	**Milestone Payment**
(i) Cumulative Net Sales of Licensed Products in the Eurofarma Territory equal to or greater than $20,000,000	$3,000,000
(ii) Cumulative Net Sales of Licensed Products in the Eurofarma Territory equal to or greater than $50,000,000	$7,500,000
(iii) Cumulative Net Sales of Licensed Products in the Eurofarma Territory equal to or greater than $100,000,000	$7,500,000
(iv) Each subsequent achievement of an additional $100,000,000 Cumulative Net Sales of Licensed Products in the Eurofarma Territory (e.g., $200,000,000; $300,000,000)	$7,500,000

8.3.1. **Reports**. During the Term, following the First Commercial Sale of a Licensed Product in the Eurofarma Territory, Eurofarma shall furnish to Summit a written report within [**] days after the end of each Calendar Quarter showing, on a Licensed Product-by-Licensed Product and country-by-country basis, the gross sales of each Licensed Product in each country of the Eurofarma Territory, deductions from gross sales (itemized by deduction category) for each Licensed Product for each country of the Eurofarma Territory included in the calculation of Net Sales, the Net Sales in each country of the Eurofarma Territory of each Licensed Product during the reporting period and any milestone payments payable under this Agreement. Eurofarma and its Related Parties shall keep complete and accurate records in sufficient detail to enable the payments payable hereunder to be determined.

8.4. **Audits**.

8.4.1. **Records; Inspections**. Eurofarma and its Related Parties shall keep complete and accurate records of the items underlying Net Sales, milestones and other payments under this Agreement and shall maintain such records for [**] years after the end of the Calendar Year to which they pertain. Upon the written request of Summit and not more than [**], Eurofarma and its Related Parties shall permit an independent certified public accounting firm of internationally-recognized standing selected by Summit and reasonably acceptable to Eurofarma, at Summit's expense except as set forth below, to have access during normal business hours to such of the records of Eurofarma and its Related parties as may be reasonably necessary to verify the accuracy of the payments and reports hereunder for any year ending not more than [**] years prior to the date of such request for the sole purpose of verifying the basis and accuracy of payments made under this Agreement. In addition, Eurofarma will provide access to such additional records and information as Summit may reasonably request in order to satisfy Summit's audit obligations under Summit's agreements with applicable Third Party funding sources.

8.4.2. **Discrepancies**. If such accounting firm identifies a discrepancy made during such period, then the appropriate Party shall pay the other Party the amount of the discrepancy (together with, in the case of any underpayments by Eurofarma, late-payment interest in accordance with Section 8.6) within [**] days after the date that both Parties receive the accounting firm's written report; *provided, however*, that, if a Party objects to such accounting firm's

written report and values, the Parties may jointly engage an independent expert mutually agreeable to the Parties to determine whether the accounting firm's written report and values are correct, and the Parties shall be bound and abide by such independent expert's determination, and the amount of any discrepancy and any applicable interest shall be paid within [**] days after the Parties receive such independent expert's determination. The fees charged by any accounting firm engaged by Summit pursuant to Section 8.4.1 shall be paid by Summit, unless such discrepancy represents an under-payment by Eurofarma of at least [**] percent ([**]%) of the total amounts payable by Eurofarma to Summit under this Agreement in the audited period, in which case such fees shall be paid by Eurofarma. The fees charged by any independent expert engaged pursuant to this Section 8.4.2 shall be shared equally by the Parties

8.4.3. **Confidential Treatment**. Summit shall treat all financial information subject to review under this Section 8.4 or under any sublicense agreement in accordance with the confidentiality and non-use provisions of this Agreement, and Summit undertakes to obtain from any accounting firm conducting any audit of Eurofarma or any of Eurofarma's Related Parties a reasonable and customary written confidentiality agreement obligating such accounting firm to retain all such information in confidence pursuant to such confidentiality agreement, which terms shall be no less stringent than the provisions of Section 9. Such confidentiality agreement must be forward to Eurofarma.

8.5. **Payment Exchange Rate**. Each payment to be made to Summit under this Agreement shall be made in such currency and to such bank account as may be designated in writing by Summit from time to time. All payments to be made under this Agreement to Eurofarma shall be made in US Dollars ($) and shall be paid by bank wire transfer in immediately available funds to such bank account as may be designated in writing by Eurofarma from time to time. If, in a given Calendar Quarter, either Party is required to convert between currencies in order to make a payment or determine whether a payment is due under this Agreement, then such Party shall make such conversion using the conversion rate existing in the United States (as reported in *The Wall Street Journal*, New York edition) for the applicable currency on the last Business Day of the applicable calendar quarter. If *The Wall Street Journal* ceases to publish such exchange rate, then the rate of exchange to be used shall be that reported in such other business publication of national circulation in the United States on which the Parties reasonably agree.

8.6. **Late Payments**. Any amount owed by a Party to the other Party under this Agreement that is not paid on or before the date such payment is due shall bear interest at a rate per annum equal to the lesser of (a) the then-current prime rate as published by Citibank, N.A., New York, New York, or any successor thereto, plus [**] percentage points per annum or (b) the highest rate permitted by Law, calculated on the number of days such payments are paid after such payments are due and compounded monthly.

8.7. **Blocked Payments**. If, by reason of applicable Laws in any jurisdiction in the Eurofarma Territory, it becomes impossible or illegal for Eurofarma to transfer milestone payments or other payments under this Agreement to Summit, then Eurofarma shall promptly notify Summit. During any such period described above, Eurofarma shall deposit such payments in local currency in the relevant jurisdiction to the credit of Summit in a

recognized banking institution designated by Summit or, if none is designated by Summit within a period of [**] days, in a recognized banking institution selected by Eurofarma and identified in a written notice given to Summit.

8.8. Taxes.

8.8.1. Deductions and Withholdings. Each Party will make all payments to the other Party under this Agreement without deduction or withholding for Taxes except to the extent that any such deduction or withholding is required by applicable Law in effect at the time of payment.

8.8.2. Payment. The full amount of any Tax required to be deducted and withheld within the meaning of Section 8.8.1 on payments under this Agreement will be duly deducted, withheld and timely paid over by the Party making the payment (the "**Payor**") on behalf of the Party receiving the payment (the "**Payee**"). Any payment payable under this Agreement with respect to which any Tax has been deducted and withheld pursuant to this Section 8.8.2 shall be increased as necessary to ensure that, after all required Tax deductions and withholdings have been made (including with respect to any such increased amount), the net amount received by the Payee (free and clear of any Tax required to be paid over by the Payor with respect thereto to any Governmental Authority) shall be equal to the amount that would have been due to, and received by, the Payee under this Agreement had no such deduction or withholding been required or made.

8.8.3. Documentation and Reductions. The Parties will cooperate with respect to all documentation required by any taxing authority or reasonably required by either Party to secure a reduction in the rate of applicable withholding Taxes.

8.8.4. Indemnification. If (a) the Payor (i) had a duty to deduct, withhold and pay over any Tax to any Governmental Authority in connection with any payment it made to the Payee under this Agreement but (ii) failed to so deduct, withhold and timely pay over all or any portion of such Tax, and (b) such Tax or portion thereof is assessed against the Payee, then the Payor will indemnify and hold harmless the Payee from and against any penalties imposed as a result thereof.

9. CONFIDENTIALITY AND PUBLICATION

9.1. Nondisclosure Obligation.

9.1.1. Non-Disclosure and Non-Use. During the Term and for a period of [**] years thereafter, all Confidential Information disclosed by one Party or any of its Affiliates to the other Party or any of its Affiliates hereunder shall be maintained in confidence by the receiving Party and shall not be disclosed to a Third Party or used for any purpose except as set forth herein without the prior written consent of the disclosing Party.

9.1.2. Permitted Disclosures. Notwithstanding the obligations of confidentiality and non-use set forth above, a receiving Party or any of its Affiliates may provide Confidential Information disclosed to it, and disclose the existence

and terms of this Agreement, as may be reasonably required in order to perform the receiving Party's obligations and to exploit the receiving Party's rights under this Agreement, and specifically to (a) the receiving Party's Related Parties, and its and their respective employees, directors, agents, consultants and advisors for the performance of the receiving Party's obligations or exploitation of the receiving Party's rights hereunder in accordance with this Agreement, in each case who are under an obligation of confidentiality and non-use with respect to such information that is no less stringent than the terms of this Section 9; (b) Governmental Authorities in order to perform the receiving Party's obligations or exploit the receiving Party's rights under this Agreement; provided that such Confidential Information shall be disclosed only to the extent reasonably necessary to do so, (c) the extent required by Law, including by the rules or regulations of the United States Securities and Exchange Commission or similar regulatory agency in a country other than the United States or of any stock exchange or listing entity, and (d) any *bona fide* actual or prospective acquirers, underwriters, investors, lenders or other financing sources and any *bona fide* actual or prospective licensees, sublicensees, collaborators or strategic partners and to consultants and advisors of such Party, in each case, who are under an obligation of confidentiality and non-use with respect to such information that is no less stringent than the terms of this Section 9. If a Party or any of its Affiliates is required by Law to disclose Confidential Information of the other Party or any of its Affiliates that is subject to the non-disclosure provisions of this Section 9, then such Party shall promptly inform the other Party of the disclosure that is being sought in order to provide the other Party an opportunity to challenge or limit the disclosure obligations. Confidential Information that is required to be disclosed by Law shall remain otherwise subject to the confidentiality and non-use provisions of this Section 9. If either Party concludes that a copy of this Agreement must be filed with the United States Securities and Exchange Commission or similar regulatory agency in a country other than the United States, then such Party will provide the other Party with a copy of this Agreement showing any provisions hereof as to which the Party proposes to request confidential treatment, will provide the other Party with an opportunity to comment on any such proposed redactions and to suggest additional redactions and will take such Party's reasonable comments into consideration before filing the Agreement.

9.2. Publication and Publicity.

9.2.1. Publication. Summit acknowledges Eurofarma's interest in publishing certain key results of the Collaboration. Eurofarma recognizes the mutual interest in obtaining valid patent protection and Summit's interest in protecting its trade secret information. Consequently, except for disclosures permitted pursuant to Section 9.1 and Section 9.2.3, if Eurofarma wishes to make a publication or public presentation that contains the Confidential Information of Summit or any of Summit's Affiliates, Eurofarma shall deliver to Summit a copy of the proposed written publication or presentation within [**] days prior to submission for publication or presentation. Summit shall have the right (a) to propose modifications to the publication or presentation for patent

reasons, trade secret reasons or business reasons, and Eurofarma will remove all of Summit's and its Affiliates' Confidential Information if requested by Summit and (b) to request a reasonable delay in publication or presentation in order to protect patentable information. If Summit requests a delay, then Eurofarma shall delay submission or presentation for a period of [**] days (or such shorter period as may be mutually agreed by the Parties) to enable Summit to file patent applications protecting Summit's rights in such information in accordance with Section 12.

9.2.2. **Publicity; Use of Names**. Except as set forth in Section 9.1 and Section 9.2.3, no Party or any of its Affiliates shall use the name, trademark, trade name or logo of the other Party or any of its Affiliates or any of their respective employees in any publicity, news release or disclosure relating to this Agreement without the prior express written permission of the other Party, except as may be required by Law or expressly permitted by the terms hereof.

9.2.3. **Press Release**. Except as set forth in Section 9.1, neither Party nor any of its Affiliates shall issue press releases or make public disclosures relating to this Agreement or the terms hereof unless mutually agreed by the Parties.

10. REPRESENTATIONS, WARRANTIES AND COVENANTS

10.1. **Mutual Representations and Warranties**. Each Party represents and warrants to the other Party that as of the Effective Date:

10.1.1. It is duly organized and validly existing under the Laws of its jurisdiction of incorporation or formation, and has full corporate or other power and authority to enter into this Agreement, and to carry out the provisions hereof.

10.1.2. It is duly authorized to execute and deliver this Agreement, and to perform its obligations hereunder, and the person or persons executing this Agreement on its behalf has been duly authorized to do so by all requisite corporate action.

10.1.3. This Agreement is legally binding upon it and enforceable in accordance with its terms. The execution, delivery and performance of this Agreement by it does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party and by which it may be bound, or with its charter or by-laws.

10.1.4. It has not granted any right to any Third Party that would conflict with the rights granted to the other Party hereunder.

10.1.5. Neither Party nor any of its Affiliates has been debarred or is subject to debarment pursuant to Section 306 of the United States Federal Food, Drug, and Cosmetic Act, as amended, or is the subject of a conviction described in such section.

10.2. **Additional Representations and Warranties of Summit**. Summit represents and warrants to Eurofarma, as of the Effective Date, that, to Summit's knowledge as of the Effective Date:

10.2.1. **Authority**. Summit has sufficient legal or beneficial title and ownership of, or sufficient license rights under, the Summit Technology existing as of the Effective Date to grant the licenses to such Summit Technology granted to Eurofarma pursuant to this Agreement and is the exclusive owner of all Summit Patent Rights set forth in Schedule 1.44.

10.2.2. **Summit Patent Rights**. (a) Schedule 1.45 collectively sets forth a complete and accurate list of the Summit Patent Rights existing as of the Effective Date, (b) each issued Summit Patent Right existing as of the Effective Date remains in full force and effect and (c) Summit or its Affiliates have paid all filing and renewal fees required to be paid on or before the Effective Date with respect to such Summit Patent Rights.

10.2.3. **Completeness of Schedules**. Other than the Summit Patent Rights set forth on Schedule 1.45, as of the Effective Date Summit does not Control any Patent Rights that Cover any Licensed Product in the Eurofarma Territory.

10.2.4. **Infringement**. The Development and Commercialization of Licensed Products in the Eurofarma Territory will not infringe the intellectual property rights of any Third Party. There is (a) no claim, action or proceeding pending, (b) no written communication or (c) no threatened claim, action or proceeding, in each case ((a), (b) and (c)) alleging that the Development or Commercialization of any Licensed Product in the Eurofarma Territory, the activities of Summit or any of its Affiliates with respect to any such Licensed Product in the Eurofarma Territory, or the practice or use of the Summit Patent Rights or Summit Know-How in the Eurofarma Territory, infringes or misappropriates any Patent Rights or other intellectual property of any Third Party. The representation and warranty in the first sentence of this Section 10.2.4 shall apply to actions that Eurofarma may face after the Effective Date.

10.3. **Additional Representations, Warranties and Covenants of Eurofarma.** Eurofarma represents, warrants and covenants to Summit that Supera Farma Laboratórios S.A (a) is a joint venture partner of Eurofarma involved in the promotion, distribution and marketing of prescription drug products developed by Eurofarma and (b) will not Commercialize any Licensed Product under this Agreement.

10.4. **Warranty Disclaimer**. EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATION OR EXTENDS ANY WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, TO THE OTHER PARTY WITH RESPECT TO ANY TECHNOLOGY, LICENSED PRODUCT, GOODS, SERVICES, RIGHTS OR OTHER SUBJECT MATTER OF THIS AGREEMENT AND HEREBY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT WITH RESPECT TO ANY AND ALL OF THE FOREGOING. EACH PARTY HEREBY DISCLAIMS ANY REPRESENTATION OR WARRANTY THAT THE DEVELOPMENT, MANUFACTURE OR COMMERCIALIZATION OF THE LICENSED PRODUCTS PURSUANT TO THIS AGREEMENT WILL BE SUCCESSFUL OR THAT ANY PARTICULAR SALES LEVEL WITH RESPECT TO THE LICENSED PRODUCTS WILL BE ACHIEVED.

10.5. Mutual Covenants.

10.5.1. Non-Contravention. During the Term, neither Party, nor any of its Related Parties, will grant any right to any Third Party that would conflict with the rights granted to the other Party hereunder.

10.5.2. Compliance with Laws. Each Party and its Related Parties shall conduct the Collaboration and the Development, Manufacture and Commercialization of the Licensed Products, as applicable, in accordance with all Laws, including applicable governmental regulations concerning good laboratory practices, good clinical practices and good manufacturing practices.

10.5.3. Debarment. Neither Party nor any of its Affiliates will use in any capacity, in connection with the Collaboration or the performance of its obligations or exercise of its rights under this Agreement, any Person that has been debarred pursuant to Section 306 of the United States Federal Food, Drug, and Cosmetic Act, as amended, or any similar Law outside the United States, including in the Eurofarma Territory, or that is the subject of a conviction described in such section or similar Law, as applicable. Each Party agrees to inform the other Party in writing immediately if it or any Person that is performing activities in the Collaboration or under this Agreement, is debarred or is subject to debarment or is the subject of a conviction described in Section 306 of the United States Federal Food, Drug, and Cosmetic Act, as amended (or any similar Law outside the United States, including in the Eurofarma Territory), or if any action, suit, claim, investigation or legal or administrative proceeding is pending or, to the best of the notifying Party's knowledge, is threatened, relating to the debarment or conviction of the notifying Party or any Person used in any capacity by such Party or any of its Affiliates in connection with the Collaboration or the performance of its obligations or exercise of its rights under this Agreement.

11. INDEMNIFICATION; LIMITATION OF LIABILITY; INSURANCE

11.1. General Indemnification by Eurofarma. Eurofarma shall indemnify, hold harmless, and defend Summit, its Related Parties, and their respective directors, officers, employees and agents ("**Summit Indemnitees**") from and against any and all Third Party claims, suits, losses, liabilities, damages, costs, fees and expenses (including reasonable attorneys' fees and litigation expenses) (collectively, "**Losses**") arising out of or resulting from, directly or indirectly, (a) any breach of, or inaccuracy in, any representation or warranty made by Eurofarma in this Agreement, or any breach or violation of any covenant or agreement of Eurofarma in or in the performance of this Agreement or (b) the negligence or willful misconduct by or of Eurofarma or its Related Parties, or any of their respective directors, officers, employees and agents, in the performance of Eurofarma's obligations under this Agreement. Eurofarma shall have no obligation to indemnify the Summit Indemnitees to the extent that the Losses arise out of or result from, directly or indirectly, any breach of, or inaccuracy in, any representation or warranty made by Summit in this Agreement, or any breach or violation of any covenant or agreement of Summit in or in the performance of this Agreement, or the negligence or willful misconduct by or on behalf of any of the Summit Indemnitees,

or matters for which Summit is obligated to indemnify Eurofarma under Section 11.2 or Section 11.3.

11.2. General Indemnification by Summit. Summit shall indemnify, hold harmless, and defend Eurofarma, its Related Parties and their respective directors, officers, employees and agents ("**Eurofarma Indemnitees**") from and against any and all Losses arising out of or resulting from, directly or indirectly, (a) any breach of, or inaccuracy in, any representation or warranty made by Summit in this Agreement, or any breach or violation of any covenant or agreement of Summit in or in the performance of this Agreement or (b) the negligence or willful misconduct by or of Summit or its Related Parties, and their respective directors, officers, employees and agents, in the performance of Summit's obligations under this Agreement. Summit shall have no obligation to indemnify the Eurofarma Indemnitees to the extent that the Losses arise out of or result from, directly or indirectly, any breach of, or inaccuracy in, any representation or warranty made by Eurofarma in this Agreement, or any breach or violation of any covenant or agreement of Eurofarma in or in the performance of this Agreement, or the negligence or willful misconduct by or on behalf of any of the Eurofarma Indemnitees, or matters for which Eurofarma is obligated to indemnify Summit under Section 11.1 or Section 11.3.

11.3. Product Liability. Any Losses arising out of Third Party product liability claims arising from manufacturing defects in Licensed Products Manufactured by Summit shall be borne by Summit. Any other Losses arising out of Third Party product liability claims arising from Commercialization of Licensed Products shall be (a) borne by Eurofarma, to the extent such Losses were incurred with respect to the Commercialization of the Licensed Products in or for the Eurofarma Territory by or on behalf of Eurofarma or any of its Related Parties and (b) be borne by Summit, to the extent such Losses were incurred with respect to the Commercialization of the Licensed Products in or for the Summit Territory, in each case, by or on behalf of Summit or any of its Related Parties. The Party bearing such Losses in accordance with this Section 11.3 shall indemnify, hold harmless and defend the other Party and its Related Parties and their respective directors, officers, employees and agents from and against such Losses.

11.4. Indemnification Procedure. In the event of any indemnified claim against any Eurofarma Indemnitee or Summit Indemnitee (individually, an "**Indemnitee**"), the Indemnitee shall promptly notify the other Party in writing of the claim and the indemnifying Party shall manage and control, at its sole expense, the defense of the claim and its settlement; provided, however, that the indemnifying Party may not settle the claim without the Indemnitee's prior written consent (not to be unreasonably withheld), if such settlement materially adversely impacts the Indemnitee's rights or obligations. The Indemnitee shall cooperate with the indemnifying Party and may, at its option and expense, be represented in any such action or proceeding. The indemnifying Party shall not be liable for any settlements, litigation costs or expenses incurred by any Indemnitee without the indemnifying Party's written authorization. Notwithstanding the foregoing, if the indemnifying Party believes that any of the exceptions to its obligation of indemnification of the Indemnitees set forth in Sections 11.1, 11.2 or 11.3 may apply, then the indemnifying Party shall promptly notify the Indemnitees, who shall then have the right to be represented in any such action or proceeding by separate counsel at their expense; provided that the indemnifying Party shall be responsible for payment of such expenses if the Indemnitees are ultimately determined to be entitled to indemnification

from the indemnifying Party for the matters to which the indemnifying Party notified the Indemnitees that such exception(s) may apply.

11.5. Limitation of Liability. NEITHER PARTY WILL BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY, CONSEQUENTIAL OR PUNITIVE DAMAGES ARISING OUT OF THIS AGREEMENT OR THE EXERCISE OF ITS RIGHTS HEREUNDER, INCLUDING LOST PROFITS ARISING FROM OR RELATING TO ANY BREACH OF THIS AGREEMENT, REGARDLESS OF ANY NOTICE OF SUCH DAMAGES, EXCEPT AS A RESULT OF (A) A PARTY'S GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, (B) A BREACH OF THE CONFIDENTIALITY AND NON-USE OBLIGATIONS IN SECTION 9, (C) A BREACH OF SECTION 7.4 OR (D) A BREACH OF SECTION 12.1. NOTHING IN THIS SECTION 11.5 IS INTENDED TO LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF EITHER PARTY.

11.6. Insurance. Eurofarma shall maintain insurance during the Term and until at least two (2) years after the last commercial sale of any Licensed Product in the Eurofarma Territory under this Agreement, with a reputable, solvent insurer in an amount appropriate for Eurofarma's business and products of the type that are the subject of this Agreement, and for Eurofarma's obligations under this Agreement. Specifically, Eurofarma shall maintain product liability insurance with limits of [**] U.S. Dollars ($ [**]) per occurrence and in annual aggregate. Upon request, Eurofarma shall provide Summit with evidence of the existence and maintenance of such insurance coverage.

12. INTELLECTUAL PROPERTY OWNERSHIP, PROTECTION AND RELATED MATTERS

12.1. Assignment of Improvements. Eurofarma hereby assigns and agrees to assign, on behalf of itself and its Related Parties, to Summit all of Eurofarma's and its Related Parties' rights, title and interest in and to all Know-How and Patent Rights that (a) are invented, developed or generated on or after the Effective Date by or on behalf of Eurofarma or any of its Related Parties or any Third Party on behalf of or pursuant to contracts with Eurofarma or any of its Related Parties, whether solely or jointly with Summit or any of its Related Parties or any Third Party, and (b) constitute an improvement to any Summit Technology.

12.1.1. Disclosure. Eurofarma shall promptly disclose to Summit any invention disclosures, or other similar documents, submitted to it by its employees, agents or independent contractors during the Term describing any improvement to any Summit Technology. In addition, Eurofarma will disclose to Summit any such information related to such technology, to the extent patentable, necessary for the filing, prosecution or maintenance of any Patent Right claiming or otherwise covering any improvement to any Summit Technology in accordance with the terms and conditions of this Section 12.

12.1.2. Employee Assignment Obligations; Third Party Intellectual Property Agreements. Eurofarma shall ensure that all of its employees, agents and independent contractors and all of its Affiliates' employees, agents and independent contractors acting under its or its Affiliates' authority in the performance of this Agreement assign to Eurofarma under a binding written

agreement all Know-How and Patent Rights discovered, made or conceived by such employees, agents and independent contractors in the performance of this Agreement. In addition, Eurofarma shall use Commercially Reasonable Efforts to include in agreements between Eurofarma or any of its Affiliates, on the one hand, and any Third Parties engaged under such agreements to perform activities under this Agreement that are reasonably expected to generate any improvements to any Summit Technology, on the other hand, binding agreements granting Eurofarma ownership of such generated improvement(s).

12.1.3. Further Actions and Assignments. Eurofarma shall take all further actions and execute all assignments that are requested by Summit and reasonably necessary or desirable to vest in Summit the ownership rights set forth in this Section 12.1.

12.2. Prosecution and Maintenance of Patent Rights.

12.2.1. Summit Patent Rights.

(a) Responsibility. Summit has the sole responsibility to, at Summit's discretion, file, prosecute and maintain all Summit Patent Rights. Except as required by Law, Summit shall prosecute and maintain Summit Patent Rights that were in existence at the Effective Date and seek issuance of all patent applications within the Summit Patent Rights that were filed in the Eurofarma Territory prior to the Effective Date.

(b) Consultation with Eurofarma. Notwithstanding the foregoing Section 12.2.1(a), Summit shall consult with Eurofarma on the preparation, filing, prosecution and maintenance of all Summit Patent Rights in the Eurofarma Territory. Summit shall furnish Eurofarma with copies of documents relevant to such preparation, filing, prosecution and maintenance in sufficient time prior to filing such document or making any payment due thereunder to allow for review and comment by Eurofarma and shall consider in good faith timely comments from Eurofarma thereon. Summit shall also furnish Eurofarma with copies of all final filings and responses made to any patent authority with respect to all such Patent Rights in a timely manner following submission thereof.

12.2.2. **Cooperation**. Eurofarma hereby agrees: (a) to make its employees, agents and consultants reasonably available to Summit (or to Summit's authorized attorneys, agents or representatives), to the extent reasonably necessary to enable Summit to undertake patent prosecution under this Agreement; (b) to cooperate, if necessary and appropriate, with Summit in gaining patent term extensions wherever applicable to Patent Rights under this Agreement and (c) to endeavor in good faith to coordinate its efforts with Summit to minimize or avoid interference with the prosecution and maintenance of Summit's patent applications. For purposes of clarity, Eurofarma shall not bear any of Summit's internal or out-of-pocket costs related to Summit's patents.

12.3. Infringement by Third Parties; Defense Actions.

12.3.1. **Notices**. Each Party shall promptly report in writing to the other Party any (a) known or suspected infringement of any Summit Technology or (b) unauthorized use or misappropriation of any Confidential Information or Know-How of a Party by a Third Party of which it becomes aware, in each case, to the extent such infringing, unauthorized or misappropriating activities involve, as to a Licensed Product, a competing product in the Field in the Eurofarma Territory ((a) and (b) collectively, "**Competitive Infringement**"), (c) Third Party's challenge to the validity, scope or enforceability of a Summit Patent Right in the Eurofarma Territory or (d) initiation by a Third Party of any opposition or *inter partes* review proceeding against any Summit Patent Right in the Eurofarma Territory (any challenge or proceeding described in clause (c) or clause (d), a "**Defense Action**"), and shall provide the other Party with all available evidence and information regarding such Competitive Infringement or Defense Action.

12.3.2. **Rights to Enforce and Defend**.

(a) First Right. Summit shall have the first right, but not the obligation, to initiate an infringement or other appropriate suit or administrative proceeding in the Eurofarma Territory against any Third Party as to any Competitive Infringement in the Eurofarma Territory of any Summit Technology. Summit shall have the sole right, but not the obligation, to defend against any Defense Action in the Eurofarma Territory relating to a Summit Patent Right.

(b) Step-In Right. If, within [**] days after Summit's receipt of a notice of a Competitive Infringement in the Eurofarma Territory (or such lesser time so that Eurofarma's rights are not prejudiced by the delay), Summit does not take any action as described in Section 12.3.2(a) against such Competitive Infringement, then Eurofarma may in its sole discretion, bring and control any legal action in connection with such Competitive Infringement at its sole expense.

12.3.3. **Procedures; Expenses and Recoveries**. The Party having the right to initiate or defend any suit, action or administrative proceeding or to challenge any Competitive Infringement under Section 12.3.2 shall have the sole and exclusive right to select counsel for any such suit, action or proceeding and

shall pay all expenses of the suit, action or proceeding, including attorneys' fees and court costs and reimbursement of the other Party's reasonable out-of-pocket costs in rendering assistance requested by the initiating or defending Party. If required under applicable Law in order for the initiating or defending Party to initiate, defend or maintain such suit, action or proceeding, or if either Party is unable to initiate, prosecute or defend such suit, action or proceeding solely in its own name or it is otherwise advisable in order to obtain an effective legal remedy, in each case, the other Party shall join as a party to the suit, action or proceeding and will execute and cause its Affiliates to execute all documents necessary for the initiating or defending Party to initiate, maintain or defend such suit, action or proceeding. In addition, at the initiating or defending Party's request, the other Party shall provide reasonable assistance to the initiating or defending Party in connection with such suit, action or proceeding at no charge to the initiating or defending Party except for reimbursement by the initiating or defending Party of reasonable out-of-pocket costs incurred in rendering such assistance. The non-initiating or non-defending Party shall have the right to participate and be represented in any such suit, action or proceeding by its own counsel at its own expense. If the Parties obtain from a Third Party, in connection with such a suit, action or proceeding, any damages, license fees, royalties or other compensation (including any amount received in settlement of such litigation or the applicable dispute), then such amounts shall be allocated in all cases as follows:

(a) first, to reimburse each Party for all expenses of the suit incurred by the Parties, including attorneys' fees and disbursements, court costs and other litigation expenses; and

(b) second, [**] percent ([**]%) of the balance to be paid to the Party initiating the suit and [**] percent ([**]%) of the balance to be paid to the other Party.

12.3.4. **Settlement.** Neither Party will enter into any settlement of any an infringement or other appropriate suit or administrative proceeding against a Competitive Infringement that could reasonably be expected to (a) have a material adverse effect on any Summit Technology in the Eurofarma Territory (including by way of any admission of invalidity or unenforceability of any Summit Technology) or (b) materially adversely affect the other Party's rights or interests without such other Party's written consent, which consent will not be unreasonably withheld.

12.4. **Common Interest**. All information exchanged between the Parties' representatives regarding the preparation, filing, prosecution, maintenance, enforcement or defense of the Patents Rights under this Section 12 will be deemed Confidential Information of each applicable disclosing Party (subject to Sections 1.11(a), 1.11(b), 1.11(c) and 1.11(d)). In addition, the Parties acknowledge and agree that, with regard to such preparation, filing, prosecution, maintenance and enforcement of the Patents Rights under this Section 12, the interests of the Parties as collaborators and licensor and licensee are to obtain the strongest patent protection possible, and as such, are aligned and are legal in nature. The Parties agree and acknowledge that they have not waived, and nothing

in this Agreement constitutes a waiver of, any legal privilege concerning the Patents Rights under this Section 12, including privilege under the common interest doctrine and similar or related doctrines.

12.5. Third Party Infringement Claims. If a Third Party sues a Party alleging that the sued Party's, or the sued Party's Related Parties', Development, Manufacture or Commercialization of a Licensed Product in the Eurofarma Territory infringes or will infringe said Third Party's intellectual property, then upon the sued Party's request and in connection with the sued Party's defense of any such Third Party suit, the other Party will provide reasonable assistance to the sued Party for such defense at no charge to the sued Party except for reimbursement by the sued Party of reasonable out-of-pocket costs incurred in rendering such assistance. The sued Party will keep the other Party, if such other Party has not joined in such suit, reasonably informed regarding such suit on a quarterly basis, in person or by telephone, prior to and during the pendency of any such suit.

12.6. Trademarks.

12.6.1. Summit Trademarks. Summit (or its Related Parties, as appropriate) shall own all rights to the Product Trademark(s) developed or used by Summit with respect to the Commercialization of Licensed Products in the Summit Territory (the "**Summit Trademarks**"), and all goodwill associated therewith, throughout the Summit Territory and the Eurofarma Territory. Summit shall also own rights to any Internet domain name incorporating the applicable Summit Trademarks or any variation or part of such Summit Trademarks as its URL address or any part of such address. Neither Eurofarma nor any of its Related Parties shall use any Summit Trademarks without Summit's prior written consent.

12.6.2. Eurofarma Trademarks. Eurofarma will develop and propose for Summit's review, which shall not be unreasonably withheld, one or more Product Trademark(s) for use by Eurofarma and its Related Parties throughout the Eurofarma Territory. Such Product Trademark(s) shall be consistent with the Global Branding Strategy. Summit shall use Commercially Reasonable Efforts to review any Product Trademark proposed by Eurofarma within [**] business days after Summit's receipt of such proposed Product Trademark. Any Product Trademark(s) (other than the Summit Trademarks that Summit permits Eurofarma to use) used by Eurofarma to Commercialize Licensed Products in the Eurofarma Territory are hereinafter referred to as the "**Eurofarma Trademarks**." In case there is no response in [**] business days, Eurofarma will consider that Trademarks are reviewed. Eurofarma (or its Related Parties, as appropriate) shall own all rights to Eurofarma Trademarks and all goodwill associated therewith, throughout the Eurofarma Territory and Summit Territory. Eurofarma shall also own rights to any Internet domain name incorporating the applicable Eurofarma Trademarks or any variation or part of such Eurofarma Trademarks as its URL address or any part of such address. Neither Summit nor its Related Parties shall use any Eurofarma Trademarks to Commercialize any Licensed Product in the Summit Territory.

12.6.3. Product Trademark Infringement. In the event either Party becomes aware of any infringement of any Product Trademark by a Third Party, such Party shall promptly notify the other Party.

12.6.4. Use of Names. For the avoidance of doubt, except as otherwise required by Laws or agreed by the parties in advance in writing, neither Party shall have any right to use the other Party's or the other Party's Related Parties' corporate names or logos in connection with Commercialization of Licensed Products.

13. TERM AND TERMINATION

13.1. Term. This Agreement shall be effective as of the Effective Date and, unless terminated earlier pursuant to Section 13.2, this Agreement shall continue in effect until the latest of (a) the earliest date on which there are no Valid Claims of any Summit Patent Rights Covering any Licensed Product in the Eurofarma Territory, (b) the earliest date on which there is no Regulatory Exclusivity for any Licensed Product in the Eurofarma Territory and (c) the tenth (10^{th}) anniversary of the First Commercial Sale of the first Licensed Product in the Eurofarma Territory ("**Term**"). Upon expiration of the Term, (x) all licenses granted to Eurofarma under Section 7.1 then in effect shall become fully paid-up, perpetual, irrevocable licenses and (y) the Parties shall discuss in good faith whether, and on what terms, to continue their relationship under any Commercial Supply Agreement then in effect.

13.2. Termination Rights.

13.2.1. Termination for Convenience. At any time after Eurofarma has paid to Summit all of the milestone payments set forth in Sections 8.2(i)-(iv), Eurofarma shall have the right to terminate this Agreement in its entirety on six (6) months' prior written notice to Summit.

13.2.2. Termination for Cause.

(a) **Termination for Insolvency.** In the event that either Party makes an assignment for the benefits of creditors, appoints or suffers appointment of a receiver or trustee over all or substantially all of its property, files a petition under any bankruptcy or insolvency act or has any such petition filed against it which petition is not discharged within sixty (60) days of the filling thereof, then the other Party may terminate this Agreement effective immediately upon written notice to such Party.

(b) **Termination for Breach.** Either Party may terminate this Agreement, effective immediately upon written notice to the other Party, for any material breach by the other Party of any term of this Agreement that remains uncured for [**] days after the non-breaching Party gives written notice to the other Party of such breach and its intent to terminate this Agreement if such breach is not cured.

(c) **Termination for Lack of Efficacy.** Eurofarma may terminate this Agreement, effective immediately upon written notice to Summit, within thirty (30) days following receipt of analysis from Summit of the Global Pivotal Clinical Study which analysis fails to show achievement of the Primary Endpoint. For purposes of clarity, the milestone that refers to the Achievement of the Primary Endpoint in the Global Pivotal Clinical Study (Milestone event iv) shall not be payable by Eurofarma if this Agreement is terminated pursuant to this Section 13.2.2(c).

(d) **Termination due to Lack of Pricing Approval.** Eurofarma shall use Commercially Reasonable Efforts to promptly notify Summit on the receipt of Price and Reimbursement Approval and to keep Summit updated regarding the entire process, in the Eurofarma Territory. Eurofarma may terminate the Agreement effective immediately upon written notice to the other Party within thirty (30) days after Price and Reimbursement Approval is granted by the applicable Regulatory Authorities in [**] for the first Licensed Product if such Price and Reimbursement Approval is not economically viable. For purposes of clarity, the milestone that refers to the Receipt of Price and Reimbursement Approval for a Licensed Product in [**] (Milestone event v) shall not be payable by Eurofarma if such Price and Reimbursement Approval is not economically viable and because of that this Agreement is terminated by Eurofarma pursuant to this Section 13.2.2(d).

(e) **Termination due to Transfer Price**. In the event it is proven by Eurofarma to Summit that the price charged by Summit to Eurofarma for Licensed Products is no longer economically feasible to Eurofarma due to exchange rate changes or a significant rise in the cost of raw materials or a significant change in any applicable market that could significantly impact the Commercialization of the Licensed Products in the Eurofarma Territory, both Parties shall use Commercially Reasonable Efforts to discuss and agree on a financially viable solution for both Parties. If both Parties do not reach an agreement within [**] days, Eurofarma may, within thirty (30) days after such failure to reach agreement, terminate the Agreement effective immediately upon written notice to Summit.

(f) **Termination due to Non-Granting of Patent Rights in [**]**. At Eurofarma's option, Eurofarma may terminate this Agreement within thirty (30) days after all claims in all Summit Patent Rights pending in [**] as of the Effective Date are finally rejected by an administrative agency action from which no appeal can be taken, provided that such rejection materially affects the Commercialization of the Licensed Products in the Eurofarma Territory. For purposes of clarity, Summit has attached to this Agreement as Schedule 1.44 the Summit Patent Rights that exist as of the Effective Date.

(g) **Termination for Infringement.** Eurofarma may terminate this Agreement within thirty (30) days after receipt of any claim that the use of Summit Know How and any of Summit Patent Rights infringe any Third Party Patent Rights.

(h) **Termination due to Regulatory Matters**. Eurofarma shall use Commercially Reasonable Efforts to promptly notify Summit on the approval or the non-approval of each Licensed Product by any Governmental Authority in the Eurofarma Territory. Eurofarma may terminate this Agreement upon written notice to the other Party within thirty (30) days after (i) the date an application for approval for the Licensed Product is rejected by any Governmental Authority in [**] and (ii) an applicable Governmental Authority in [**] requests additional studies that are proven by Eurofarma to Summit not to be economically feasible to either Party.

(i) **Challenges of Patent Rights**. In the event that Eurofarma or any of its Related Parties (i) commences or participates in any action or proceeding (including any patent opposition or re-examination proceeding), or otherwise asserts any claim, challenging or denying the validity or enforceability of any Summit Patent Right or any claim thereof or (ii) actively assists any other Person in bringing or prosecuting any action or proceeding (including any patent opposition or re-examination proceeding) challenging or denying the validity or enforceability of any Summit Patent Right or any claim thereof, then (A) Eurofarma shall give notice thereof to Summit within [**] days of taking such action (or becoming aware that its Related Party has taken such action) and (B) Summit will have the right, in its sole discretion to give notice to Eurofarma that the licenses granted to Eurofarma with respect to all or any portion of the Summit Patent Rights licensed to Eurofarma under this Agreement will terminate thirty (30) days following such notice (or such longer period as Summit may designate in such notice) unless (1) Eurofarma withdraws or causes to be withdrawn all such challenges or (2) in the case of *ex-parte* proceedings, multi-party proceedings or other patent challenges that Eurofarma or Eurofarma's Related Parties do not have the power to unilaterally withdraw or cause to be withdrawn, Eurofarma and Eurofarma's Related Parties cease assisting any other party to such patent challenge and, to the extent Eurofarma or any Eurofarma Related Party is a party to such patent challenge, withdraw from such patent challenge, in each case, within such thirty (30)-day period. In the event that Summit is not permitted under Law to terminate the licenses with respect to all Summit Patent Rights under this Agreement, then the Parties agree to construe this provision to permit Summit to terminate only the licenses to that portion of such Summit Patent Rights with respect to which Summit may terminate consistent with applicable Law.

13.3. Effect of Termination. Without limiting any other legal or equitable remedies that either Party may have:

13.3.1. Effect of Any Termination. Upon any termination of this Agreement:

(a) all license grants in this Agreement from Summit to Eurofarma shall immediately terminate; and

(b) at Summit's option, Eurofarma shall as promptly as practicable transfer to Summit or Summit's designee (i) possession and ownership of all governmental or regulatory correspondence, conversation logs, filings and approvals (including all NDAs, Regulatory Approvals and Pricing and Reimbursement Approvals) relating to the Development, Manufacture or Commercialization of any Licensed Product and all Eurofarma Trademarks used for any Licensed Product in the Field in the Eurofarma Territory (but not any Eurofarma house marks or any trademark containing the word "Eurofarma" owned by Eurofarma and used for any Licensed Product in the Field in the Eurofarma Territory), (ii) copies of all data, reports, records and materials, and other sales and marketing related information in Eurofarma's possession or Control to the extent that such data, reports, records, materials or other information relate to the Development, Manufacture or Commercialization of any Licensed Product, including all non-clinical and clinical data relating to any Licensed Product, and customer lists and customer contact information and all adverse event data in Eurofarma's possession or Control, and Eurofarma shall use Commercially Reasonable Efforts to obtain for Summit the right to access all such data, reports, records, materials and other sales and marketing related information, and (iii) all records and materials in Eurofarma's possession or Control containing Confidential Information of Summit. Eurofarma shall further appoint Summit as Eurofarma's or Eurofarma's Related Parties' agent for all Licensed Product-related matters involving Governmental Authorities in the Eurofarma Territory until all Regulatory Approvals and other regulatory filings have been transferred to Summit or its designee.

13.3.2. Effect of Termination by Eurofarma for Convenience or Cause or by Summit for Cause. Upon any termination of this Agreement by Eurofarma pursuant to Section 13.2.1 or Section 13.2.2 or by Summit pursuant to Section 13.2.2:

(a) Payment. Eurofarma shall pay to Summit all payment obligations that accrued prior to the effective date of termination, to the extent they have not previously been paid. For purposes of clarity, with respect to milestone payments, this Section 13.3.2(a) shall only require Eurofarma to pay Summit for the milestones achieved by the time of the termination of this Agreement and not all the milestone payment obligations contemplated in this Agreement.

(b) Appointment as Distributor. At Summit's option, if the effective date of termination is after the First Commercial Sale of a Licensed Product in the Eurofarma Territory, then Eurofarma shall appoint Summit as its exclusive distributor of all Licensed Products in the Eurofarma Territory and grant Summit the right to appoint sub-distributors, until such time as all applicable Regulatory Approvals in the Eurofarma Territory have been transferred to Summit or its designee.

(c) Third Party Agreements. At Summit's option, and to the extent permitted under Eurofarma's obligations to Third Parties at the time of termination, Eurofarma shall transfer to Summit any Third Party agreements relating solely and exclusively to the Development or Commercialization of any Licensed Product to which Eurofarma is a party, subject to any required consents of such Third Party, which Eurofarma shall use Commercially Reasonable Efforts to obtain promptly.

(d) Further Assistance. Eurofarma shall provide any other assistance reasonably requested by Summit for the purpose of allowing Summit or its designee to proceed expeditiously with the Development, Manufacture and Commercialization of Licensed Products in the Eurofarma Territory. Eurofarma shall execute all documents and take all such further actions as may be reasonably requested by Summit in order to give effect to the foregoing clauses.

13.3.3. Effect of Termination by Eurofarma for Convenience or by Summit for Cause. Upon any termination of this Agreement by Eurofarma pursuant to Section 13.2.1 or by Summit pursuant to Section 13.2.2, in the event that any Licensed Product is already under commercialization, Eurofarma shall pay to Summit within [**] days after the effective date of such termination, a *pro rata* share of the next Eurofarma Territory sales milestone payment that would have been due to Summit pursuant to Section 8.3 if this Agreement had not been terminated. By way of example, and not limitation, if, as of the effective date of termination of this Agreement, Eurofarma has made Cumulative Net Sales of Licensed Products in the Eurofarma Territory of Two Hundred Fifty Million Dollars ($250,000,000) and has paid to Summit all payments that accrued under this Agreement prior to such effective date of termination, then Eurofarma shall also pay to Summit Three Million Seven Hundred Fifty Thousand U.S. Dollars ($3,750,000), which is equal to fifty percent (50%) of the Seven Million Five Hundred Thousand U.S. Dollars ($7,500,000) milestone payment that Eurofarma would have owed to Summit under Section 8.3 for achievement of Three Hundred Million U.S. Dollars ($300,000,000) in Cumulative Net Sales (since Fifty Million U.S. Dollars ($50,000,000) is fifty percent (50%) of One Hundred Million U.S. Dollars ($100,000,000)). Eurofarma shall thereafter cease to have any financial obligations under this Agreement.

13.4. Effect of Expiration or Termination; Survival. Expiration or termination of this Agreement shall not relieve the Parties of any obligation accruing prior to such expiration or termination. The provisions of Sections 1, 3.5.1, 7.3, 7.7, 8.4, 8.5, 8.6, 8.7, 8.8, 9.1, 9.2.1, 9.2.2, 10.4, 11, 12.1, 13.3, 13.4 and 14 shall survive any expiration or termination of this Agreement. Except as otherwise set forth in this Section 13, upon termination or expiration of this Agreement all rights and obligations of the Parties under this Agreement shall cease.

14. MISCELLANEOUS

14.1. Assignment. Except as provided in this Section 14.1, this Agreement may not be assigned or otherwise transferred, nor may any right or obligation hereunder be assigned or transferred, by either Party without the written consent of the other Party. However, either Party may, without the other Party's written consent, assign this Agreement and its rights and obligations hereunder in whole or in part to an Affiliate of the assigning Party or to a party that acquires, by or otherwise in connection with a merger, sale of assets or otherwise, all or substantially all of the business of the assigning Party to which the subject matter of this Agreement relates. The assigning Party shall remain responsible for the performance by its assignee of this Agreement or any obligations hereunder so assigned. Any purported assignment in violation of this Section 14.1 shall be null, void and of no legal effect.

14.2. Governing Law; Arbitration.

14.2.1. Governing Law. This Agreement shall be construed and the respective rights of the Parties determined in accordance with the substantive Laws of the State of New York, excluding any conflicts or choice of law rule or principle that might otherwise refer construction or interpretation of this Agreement to the Law of another jurisdiction, and the patent Laws of the relevant jurisdiction without reference to any rules of conflict of laws.

14.2.2. Arbitration. Any dispute arising out of or relating to this Agreement shall be resolved through binding arbitration as follows:

(a) A Party may submit such dispute to arbitration by notifying the other Party, in writing, of such dispute. Within [**] days after receipt of such notice, the Parties shall designate in writing a single arbitrator to resolve the dispute; provided, however, that if the Parties cannot agree on an arbitrator within such [**]day period, then the arbitrator shall be selected by the Boston, Massachusetts office of the American Arbitration Association (the "**AAA**"). The arbitrator shall not be a current or former Affiliate, employee, consultant, officer, director or stockholder of any Party.

(b) Within [**] days after the designation of the arbitrator, the arbitrator and the Parties shall meet, at which time the Parties shall be required to set forth in writing all disputed issues and a proposed ruling on the merits of each such issue.

(c) The arbitrator shall set a date for a hearing, which shall be no later than [**] days after the submission of written proposals pursuant to Section 14.2.2(b), to discuss each of the issues identified by the Parties. The Parties shall have the right to be represented by counsel. Except as provided herein, the arbitration shall be governed by the Commercial Arbitration Rules of the AAA; provided, however, that the Federal Rules of Evidence shall apply with regard to the admissibility of evidence and the arbitration shall be conducted by a single arbitrator.

(d) The arbitrator shall use his or her best efforts to rule on each disputed issue within [**] days after the completion of the hearings described in Section 14.2.2(c). The determination of the arbitrator as to the resolution of any dispute shall be binding and conclusive upon all Parties. All rulings of the arbitrator shall be in writing and shall be delivered to the Parties.

(e) The attorneys' fees of the Parties in any arbitration, fees of the arbitrator, and costs and expenses of the arbitration shall be borne by the Parties as determined by the arbitrator.

(f) Any arbitration pursuant to this Section 14.2.2 shall be conducted in English in Boston, Massachusetts, U.S. Any arbitration award may be entered in and enforced by any court of competent jurisdiction.

(g) Nothing in this Section 14.2.2 shall be construed as limiting in any way the right of a Party to seek an injunction or other equitable relief with respect to any actual or threatened breach of this Agreement or to bring an action in aid of arbitration. Should any Party seek an injunction or other equitable relief, or bring an action in aid of arbitration, then for purposes of determining whether to grant such injunction or other equitable relief, or whether to issue any order in aid of arbitration, the dispute underlying the request for such injunction or other equitable relief, or action in aid of arbitration, may be heard by the court in which such action or proceeding is brought.

14.3. Acquisitions. Each Party agrees that, in the event that a Party (the "**Acquired Party**") is acquired (whether by way of merger, acquisition, sale of all or substantially all of its business or assets to which this Agreement pertains, or otherwise) (an "**Acquisition**") by a Third Party (the "**Acquirer**"), the Acquired Party shall be deemed not to "Control" for purposes of this Agreement and the other Party shall not obtain any rights or access under this Agreement to, any Know-How or Patent Rights owned by or licensed to such Acquirer, or any of such Acquirer's Affiliates that were not Affiliates of the Acquired Party immediately prior to the consummation of such Acquisition.

14.4. Entire Agreement; Amendments. This Agreement contains the entire understanding of the Parties with respect to the subject matter hereof, and supersedes all previous arrangements with respect to the subject matter hereof, whether written or oral, including the Confidentiality Agreement. This Agreement (including the Exhibits and Schedules hereto) may be amended, or any term hereof modified, only by a written instrument duly-executed by authorized representatives of both Parties.

14.5. Severability. If any provision hereof should be held invalid, illegal or unenforceable in any respect in any jurisdiction, then the Parties shall substitute, by mutual consent, valid provisions for such invalid, illegal or unenforceable provisions, which valid provisions in their economic effect are sufficiently similar to the invalid, illegal or unenforceable provisions that it can be reasonably assumed that the Parties would have entered into this Agreement with such valid provisions. In case such valid provisions cannot be agreed upon, the invalidity, illegality or unenforceability of one or several provisions of this Agreement shall not affect the validity of this Agreement as a whole, unless the invalid, illegal or unenforceable provisions are of such essential importance to this Agreement that it is to be reasonably assumed that the Parties would not have entered into this Agreement without such invalid, illegal or unenforceable provisions.

14.6. Headings. The captions to the Sections hereof are not a part of this Agreement, but are merely for convenience to assist in locating and reading the several Sections hereof.

14.7. Waiver of Rule of Construction. Each Party has had the opportunity to consult with counsel in connection with the review, drafting and negotiation of this Agreement. Accordingly, the rule of construction that any ambiguity in this Agreement shall be construed against the drafting Party shall not apply.

14.8. Interpretation. Except where the context expressly requires otherwise, (a) the use of any gender herein shall be deemed to encompass references to either or both genders, and the use of the singular shall be deemed to include the plural (and vice versa), (b) the words "include", "includes", "including" and "*e.g.*" shall be deemed to be followed by the phrase "without limitation", (c) the word "will" shall be construed to have the same meaning and effect as the word "shall," (d) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (e) any reference herein to any Person shall be construed to include the Person's successors and permitted assigns, (f) the words "herein", "hereof" and "hereunder," and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (g) all references herein to Sections, Exhibits or Schedules shall be construed to refer to Sections, Exhibits or Schedules of this Agreement, and references to this Agreement include all Exhibits and Schedules hereto, (h) the word "notice" means notice in writing (whether or not specifically stated) and shall include notices, consents, approvals and other written communications contemplated under this Agreement, (i) provisions that require that a Party or the Parties "agree," "consent" or "approve" or the like shall require that such agreement, consent or approval be specific and in writing, whether by written agreement, letter, approved minutes or otherwise (but excluding e-mail and instant messaging), (j) references to any specific law, rule or regulation, or article, section or other division thereof, shall be deemed to include the then-current amendments thereto or any

replacement or successor law, rule or regulation thereof, (k) a capitalized term not defined herein but reflecting a different part of speech from that of a capitalized term which is defined herein shall be interpreted in a correlative manner and (l) the term "or" shall be interpreted in the inclusive sense commonly associated with the term "and/or."

14.9. No Implied Waivers; Rights Cumulative. No failure on the part of Summit or Eurofarma to exercise, and no delay in exercising, any right, power, remedy or privilege under this Agreement, or provided by statute or at Law or in equity or otherwise, shall impair, prejudice or constitute a waiver of any such right, power, remedy or privilege or be construed as a waiver of any breach of this Agreement or as an acquiescence therein, nor shall any single or partial exercise of any such right, power, remedy or privilege preclude any other or further exercise thereof or the exercise of any other right, power, remedy or privilege.

14.10. Notices. All notices which are required or permitted hereunder shall be in writing and sufficient if delivered personally, sent by internationally-recognized overnight courier or sent by registered or certified mail, postage prepaid, return receipt requested, addressed as follows:

If to Summit, to:	136a Eastern Avenue Milton Park, Abingdon Oxfordshire, OX14 4SB United Kingdom Attention: Chief Executive Officer
With a copy to:	136a Eastern Avenue Milton Park, Abingdon Oxfordshire, OX14 4SB United Kingdom Attention: Company Secretary WilmerHale LLP 60 State Street Boston, MA 02109 Attention: Steven D. Barrett, Esq.
If to Eurofarma, to:	Avenida Vereador José Diniz, 3465 04603-0003 – São Paulo, SP, Brazil Attention: Emilio Maganha Neto
With a copy to:	Avenida Vereador José Diniz, 3465 04603-0003 – São Paulo, SP, Brazil Attention: Portfolio Management & Licensing

or to such other address as the Party to whom notice is to be given may have furnished to the other Party in writing in accordance herewith. Any such notice shall be deemed to have been given: (a) when delivered if personally delivered on a business day (or if delivered on a non-business day, then on the next business day); (b) on receipt if sent by overnight courier or (c) on receipt if sent by mail.

14.11. Compliance with Export Regulations. Neither Party shall export any technology licensed to it by the other Party under this Agreement except in compliance with all applicable export Laws and regulations.

14.12. Force Majeure. Neither Party shall be held liable to the other Party nor be deemed to have defaulted under or breached this Agreement for failure or delay in performing any obligation under this Agreement to the extent that such failure or delay is caused by or results from causes beyond the reasonable control of the affected Party, potentially including embargoes, war, acts of war (whether war be declared or not), insurrections, riots, civil commotions, strikes, lockouts or other labor disturbances, fire, floods or other acts of God. The affected Party shall notify the other Party of such force majeure circumstances as soon as reasonably practical, and shall promptly undertake all reasonable efforts necessary to cure such force majeure circumstances.

14.13. Independent Contractors. It is expressly agreed that Summit and Eurofarma shall be independent contractors and that the relationship between Summit and Eurofarma shall not constitute a partnership, joint venture or agency. Summit shall not have the authority to make any statements, representations or commitments of any kind, or to take any action, that would be binding on Eurofarma, without the prior written consent of Eurofarma, and Eurofarma shall not have the authority to make any statements, representations or commitments of any kind, or to take any action, that would be binding on Summit without the prior written consent of Summit.

14.14. Counterparts. The Agreement may be executed in two or more counterparts, including by facsimile or PDF signature pages, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

14.15. Binding Effect; No Third Party Beneficiaries. As of the Effective Date, this Agreement shall be binding upon and inure to the benefit of the Parties and their respective permitted successors and permitted assigns. Except as expressly set forth in this Agreement, no Person other than the Parties and their respective Affiliates and permitted assignees hereunder shall be deemed an intended beneficiary hereunder or have any right to enforce any obligation of this Agreement.

[THE REMAINDER OF THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

EUROFARMA LABORATÓRIOS S.A.

BY: /s/ Emilio Maganha

NAME: Emilio Maganha

TITLE: Director Gestão Portfolio e Licenças

EUROFARMA LABORATÓRIOS S.A.

BY: /s/ Martha Penna

NAME: Martha Penna

TITLE: Vice Presidente Inovação

SUMMIT (OXFORD) LTD

BY: /s/ Glyn Edwards

NAME: GLYN EDWARDS

TITLE: CEO

20th December 2017

Witness:
BY: /s/ Anane S.F. Barros

NAME: Anane S.F. Barros

ID: 38.24S.912-x

Witness: SUMMIT (OXFORD) LTD
BY: /s/ Stephanie Bewick

NAME: STEPHANIE BEWICK

ID: VP, BUSINESS DEVELOPMENT

20th December 2017

SCHEDULE 1.45

SUMMIT PATENT RIGHTS

REF	MNEMONIC	STATUS	FAMILY	LOC	AGENT REF	APPLICATION NUMBER	PUBLICATION NUMBER/ PATENT NUMBER	PRIORITY DATE	FILING DATE
[**]	[**]	[**]	[**]	[**]	[**]	[**]		[**]	[**]
[**]	[**]	[**]	[**]	[**]	[**]	[**]	[**]	[**]	[**]
[**]	[**]	[**]		[**]	[**]	[**]		[**]	[**]

EXHIBIT A

LIST OF REQUIRED DOCUMENTATION

Confidential Materials omitted and filed separately with the Securities and Exchange Commission. A total of four pages were omitted. [**]

Exhibit 4.28

Confidential Materials omitted and filed separately with the
Securities and Exchange Commission. Double asterisks denote omissions..

Dated 23 December 2017

D WILLIAMS & OTHERS (1)

SUMMIT THERAPEUTICS PLC (2)

SHARE PURCHASE AGREEMENT

relating to

DISCUVA LIMITED

Salisbury House
29 Finsbury Circus
London EC2M 5PS
Tel: 020 7638 9271
Fax: 020 7628 7525
Ref: DXS/SUM16.13

TABLE OF CONTENTS

THIS AGREEMENT is dated 23 December 2017

PARTIES

(1) The several persons whose names and addresses are set out in Schedule 1 (Sellers).

(2) **SUMMIT THERAPEUTICS PLC** incorporated and registered in England and Wales with company number 05197494 whose registered office is at 136a Eastern Avenue, Milton Park, Abingdon, Oxfordshire, United Kingdom, OX14 4SB (Buyer).

BACKGROUND

(A) The Company is a private company limited by shares incorporated in England and Wales.

(B) The Company has an issued share capital of £55,531.137 divided into 22,649,006 ordinary shares of £0.001 each, 3,288,213 preference shares of £0.01 each and one Z ordinary share of £0.001.

(C) Further particulars of the Company at the date of this agreement are set out in Schedule 2.

(D) The Sellers are the owners of the legal and beneficial title to the number of Sale Shares set out opposite their respective names in Schedule 1.

(E) The Sellers have agreed to sell and the Buyer has agreed to buy the Sale Shares subject to the terms and conditions of this agreement.

AGREED TERMS

1. **Interpretation**

1.1 The definitions and rules of interpretation in this clause apply in this agreement.

Accounts	the full form shareholder unaudited accounts of the Company (prepared under section 394 of the CA 2006) for the accounting period ended on the Accounts Date, including the statement of financial position as at the Accounts Date, the income statement for the twelve months ending on the Accounts Date and the related notes to the accounts as required by law and applicable accounting standards, copies of which are included in the Disclosure Bundle.
Accounts Date	March 31, 2017

Adjustment Date	the fifth Business Day following the date on which the Purchase Price Statement is agreed or determined (as the case may be) in accordance with Schedule 4.
AIM	means AIM, a market operated by the LSE
AIM Rules	the AIM Rules for Companies published by the LSE and setting out the rules and responsibilities in relation to companies with a class of securities admitted to AIM.
Bactevo	Bactevo Limited, a company incorporated in England and Wales with registered number 8328823.
Bactevo Agreements	the following agreements between the Company and Bactevo, namely: (a) IP Amendment and Assignment dated 17 December 2014 between the Company and Bactevo; and (b) IP Assignment and Licence dated 22 March 2013 between the Company and Bactevo.
Bactevo Amendment Agreement	an agreement in the agreed form to amend the Bactevo Agreements be entered into between the Company and Bactevo at or prior to Completion.
Business	the business carried on by the Company at Completion, namely the use of antibiotic deconvolution technology to identify chemical mechanisms of action and resistance in order to select and optimise the creation of drug candidates, or any part of it.
Business Day	a day other than a Saturday, Sunday or public holiday in England when banks in London are open for business.
Buyer's Solicitors	Druces LLP of Salisbury House, London Wall, London EC2M 5PS.
CA 2006	the Companies Act 2006.
CAA 2001	the Capital Allowances Act 2001.
Cash	has the meaning set out in Paragraph 1.1 of Schedule 4
Cash Consideration	has the meaning set out in clause 3.1.1.

Cash Price	the sum of £5,000,000 (Five Million Pounds) payable by the Buyer to the Sellers on Completion as part of the Purchase Price.
Consideration Shares	the ordinary shares of £0.01 each in the capital of the Buyer and having the rights and composition set out at clause 4.1 to be allotted and issued to the Sellers in accordance with clause 3.1 in part consideration of the Purchase Price payable to the Sellers by the Buyer in respect of the sale of the Sale Shares.
CMA	the Competition and Markets Authority.
Company	Discuva Limited, a company incorporated and registered in England and Wales with company number 06169490 whose registered office is at The Merrifield Centre, Rosemary Lane, Cambridge CB1 3LQ, further details of which are set out in Schedule 1.
Completion	completion of the sale and purchase of the Sale Shares in accordance with this agreement.
Completion Date	means the date of this agreement.
Completion Payment	the sum of £5,000,000: (a) plus an amount equal to the Estimated Cash; (b) less an amount equal to the Estimated Indebtedness.
Connected	has, in relation to a person, the meaning given in section 1122 of the CTA 2010.
Control	has the meaning given in section 1124 of the CTA 2010, and the expression change of Control shall be construed accordingly.
CTA 2009	the Corporation Tax Act 2009.
CTA 2010	the Corporation Tax Act 2010.
Deal Fees	the costs, fees, disbursements and VAT of: (a) the Sellers' Solicitors for advising on the negotiation and completion of this agreement (being £[**] plus VAT); (b) Price Bailey LLP for advising the Sellers on the tax elements of this agreement (being £[**] plus VAT).

Deferred Consideration	the contingent deferred consideration forming part of the Purchase Price, determined and payable in accordance with Schedule 5.
Director	each person who is a director or shadow director of the Company, as set out in Schedule 2.
Disclosed	fairly disclosed (with sufficient details to identify the nature and scope of the matter disclosed) in or under the Disclosure Letter.
Disclosure Bundle	the bundle of documents, in agreed form, annexed to the Disclosure Letter.
Disclosure Letter	the letter, in agreed form, from the Sellers to the Buyer with the same date as this agreement and described as the Disclosure Letter, together with the Disclosure Bundle.
DPA 1998	the Data Protection Act 1998.
Effective Time	has the meaning set out in Paragraph 1.1 of Schedule 4.
Employee	has the meaning given in paragraph Schedule 6 Part 1 -27.1 of Schedule 6.
Encumbrance	any interest or equity of any person (including any right to acquire, option or right of pre-emption) or any mortgage, charge, pledge, lien, assignment, hypothecation, security interest, title retention or any other security agreement or arrangement.
Estimated Cash	the Sellers' estimate of the Cash, as set out in the Estimates Statement
Estimated Indebtedness	the Sellers' estimate of the Indebtedness, as set out in the Estimates Statement.
Estimates Statement	the statements provided by the Sellers to the Buyer on the Business Day prior to Completion setting out their good faith estimates of the current Cash, Indebtedness and the resulting calculation of the Completion Payment accompanied by reasonable supporting documents.

FCA	the Financial Conduct Authority.
FSMA	the Financial Services and Markets Act 2000.
FRS 102	Financial Reporting Standard 102: The Financial Reporting Standard applicable in the UK and Republic of Ireland as issued by the Financial Reporting Council of the UK and in force for the accounting period ended on the Accounts Date.
Fundamental Warranties	the Warranties set out in paragraphs Schedule 6 Part 1 -1.1, Schedule 6 Part 1 -1.2, Schedule 6 Part 1 -2.2 or Schedule 6 Part 1 -2.3.
Fundamental Warranty Claim	a claim for breach of the Fundamental Warranties.
Group	in relation to a company, that company, any subsidiary undertaking or any parent undertaking from time to time of that company, and any subsidiary undertaking from time to time of a
HMRC	HM Revenue & Customs.
holding company	has the meaning given in clause 1.11.
ICTA 1988	the Income and Corporation Taxes Act 1988.
IHTA 1984	the Inheritance Tax Act 1984.
Ian George	a holder of Sale Shares whose details are set out in Schedule 1.
Individual Dispute	means in relation to any Seller a Fundamental Warranty Claim, or any other matter in relation to which such Seller is individually responsible pursuant to this agreement.
Indebtedness	has the meaning set out in Paragraph 1.1 of Schedule 4.
Insurance Premium Contribution	the sum of £[**] payable by the Sellers at Completion as their aggregate contribution towards the premium payable in respect of the Policy (being equal to [**]% of the premium for the Policy).
Insured Risks	the Risks as defined in the Policy.
Insurers	The definition used in the Policy.

Intellectual Property Rights	has the meaning given in paragraph 23.1 of Schedule 6.
ITEPA 2003	the Income Tax (Earnings and Pensions) Act 2003.
Key Sellers	David Williams, John Wain and Giorgio Reggiani (and each of them a **Key Seller**).
LSE	London Stock Exchange.
Management Accounts	the unaudited statement of financial position and profit and loss as at 30 November 2017 and the unaudited cash flow statement of the Company for the period of 8 months ended 30 November
New Lease	a new lease of the Property in agreed form to be granted by PropCo to the Company on Completion.
New Wave	New Wave Ventures LLP a limited liability partnership holding Sale Shares with registered number OC352180.
New Wave Sellers	New Wave and Ian George.
Non-New Wave Sellers	all of the Sellers except the New Wave Sellers.
Options	the respective rights to acquire ordinary shares in the Company granted to each Optionholder which have been exercised immediately prior to the date of this agreement.
Optionholders	each of the Sellers who have exercised Options and accordingly appear in Schedule 1 with a corresponding deduction in columns 8 and 9 of the table in Schedule 1.
Ordinary Shares	the 22,649,006 ordinary shares of £0.001 each of the Company, all of which are issued fully paid.
parent undertaking	a parent undertaking as defined in section 1162 of the CA 2006.
Pension Scheme	the National Employment Saving Trust with pension scheme registry number 12004537 and EPSR EMP000806101.

Policy	the insurance policy taken out shortly before Completion to which the Company and certain of the Sellers are Insured Persons (as defined in such policy).
Preferred Shares	the 3,288,213 preference shares of £0.01 each of the Company, all of which are issued fully paid, and in respect of which £649,548.80 of dividends are in arrears (the **Dividend Arrears**).
Previous Accounts	the accounts equivalent to the Accounts in respect of each of the two accounting periods immediately preceding the accounting period ended on the Accounts Date.
Previously-owned Land and Buildings	has the meaning given in Schedule 6 Part 1 -29.1.
PropCo	Merrifield Centre Ltd, a company incorporated in England and Wales with registered number 11118349.
PropCo Sellers	those Sellers who are also shareholders in PropCo.
Property	has the meaning given in Schedule 6 Part 1 -29.1
Purchase Price	the aggregate purchase price for the Sale Shares, as set out in, and to be paid or satisfied in accordance with Clause 3.1.
Purchase Price Statement	has the meaning set out in Paragraph 1.1 of Schedule 4.
R & D Payments	contingent payments by way of further additions to the Purchase Price to be made pursuant to clause 3.5.
R & D Tax Credits	the amount of any payment made by HMRC and received and retained by the Company as the result of the Company surrendering any amount of allowance or credit for Tax in respect of expenditure on research & development for any accounting period of the Company.
Relevant Claim	a Warranty Claim, a Fundamental Warranty Claim, a Tax Protection Claim or any other claim under this agreement (save for a claim made pursuant to 11 (Seller Restrictions)).
Respective Proportion	in relation to any Seller, the proportion of any sum or liability as is equal to the proportion which his Sale Shares bear to the Sale Shares as a whole, as set out in the final column of the table in

Retention	the sum of £[**] to be withheld from the Completion Payment and dealt with in accordance with Schedule 10.
Retention Account	has the meaning set out in paragraph 1 of Schedule 10.
Roche	F. Hoffman – La Roche Limited, a Swiss corporation located at Grenzacherstrasse 124, 4070 Basel, Switzerland.
Roche JV Agreement	the following agreements between the Company and Roche, namely: a) Research Collaboration, Option and License Agreement dated 21 February 2014 between the Company and Roche and F. Hoffman-La Roche Inc; b) Amendment No 1 dated 12 June 2015 to the Research Collaboration, Option and License Agreement dated 21 February 2014 between the Company and Roche and F. Hoffman-La Roche Inc; and c) Amendment No 2 dated 21 February 2017 to the Research Collaboration, Option and License Agreement dated 21 February 2014 between the Company and Roche and F. Hoffman-La Roche Inc.
Sale Shares	the 22,684,006 ordinary shares of £0.001 each in the Company, 3,288,213 preference shares of £0.01 each in the Company and one Z ordinary share of £0.001 in the Company, all of which are issued and fully paid, and which comprise the whole of the issued share capital of the Company.
Seller Majority	Sellers who together held not less than 75% of the Sale Shares by nominal value immediately prior to Completion
Sellers' Representatives	David Williams, Giorgio Reggiani and New Wave, or such other persons as may be elected in writing by a Seller Majority from time to time.
Sellers' Solicitors	Taylor Vinters LLP of Merlin Place, Milton Road, Cambridge CB4 0DP.

Substantiated Claim	means any Relevant Claim (to the extent not withdrawn by the Buyer in writing) which has been agreed in writing between the Buyer and the Sellers' Representatives or formally determined by an English Court of competent jurisdiction and, in relation to which, all rights of appeal have been exhausted or are debarred by passage of time.
subsidiary	has the meaning given in clause 1.11.
subsidiary undertaking	a subsidiary undertaking as defined in section 1162 of the CA 2006.
Tax	has the meaning given in paragraph 1.1 of Schedule 7.
Tax Authority	has the meaning given in paragraph 1.1 of Schedule 7.
Tax Protection Claim	a claim pursuant to the Tax Covenant or the Tax Warranties.
Tax Covenant	the tax covenant set out in Schedule 7.
Tax Statute	has the meaning given in paragraph 1.1 of Schedule 7.
Tax Warranties	the Warranties in respect of tax set out in Part 2 of Schedule 6.
TCGA 1992	the Taxation of Chargeable Gains Act 1992.
TIOPA 2010	the Taxation (International and Other Provisions) Act 2010.
TMA 1970	the Taxes Management Act 1970.
Transaction	the transaction contemplated by this agreement or any part of that transaction.
Transaction Documents	this agreement, the Disclosure Letter, the Bactevo Amendment Agreement, the New Lease, the Transitional Services Agreement and the documents listed in paragraphs 1.1.14 and 1.1.15 of Part 1 of Schedule 3 and any other document to be entered into pursuant to this agreement in connection with the Transaction.
Transfer Incentives	certain contingent obligations of the Company to certain of its employees and consultants, payable on the happening of certain events, in the maximum amounts referred to in Schedule 13 the terms of which are more particularly set out in the bonus plan document to be executed at or prior to Completion (a copy of which is included in the Disclosure Bundle).

Transitional Services Agreement	the agreement between the Company and Bactevo to be entered into at or prior to Completion in the agreed form.
VATA 1994	the Value Added Tax Act 1994.
Warranties	the warranties and representations given by the Sellers pursuant to clause 7 and set out in Schedule 6.
Warranty Claim	a claim for breach of the Warranties (excluding the Fundamental Warranties).
Z Ordinary Share	the Z ordinary share of £0.001 of the Company which is issued and fully paid.

1.2 Clause, Schedule and paragraph headings shall not affect the interpretation of this agreement.

1.3 References to clauses and Schedules are to the clauses of and Schedules to this agreement and references to paragraphs are to paragraphs of the relevant Schedule.

1.4 The Schedules form part of this agreement and shall have effect as if set out in full in the body of this agreement. Any reference to this agreement includes the Schedules.

1.5 A reference to this agreement or any other agreement or document referred to in this agreement, is a reference to this agreement or such other agreement or document as varied or novated (in each case, other than in breach of the provisions of this agreement) from time to time.

1.6 Unless the context otherwise requires, words in the singular shall include the plural and the plural shall include the singular.

1.7 Unless the context otherwise requires, a reference to one gender shall include a reference to the other genders.

1.8 A person includes a natural person, corporate or unincorporated body (whether or not having separate legal personality).

1.9 This agreement shall be binding on and enure to the benefit of, the parties to this agreement and their respective personal representatives, successors and permitted assigns, and references to a party shall include that party's personal representatives, successors and permitted assigns.

1.10 A reference to a company shall include any company, corporation or other body corporate, wherever and however incorporated or established.

1.11 A reference to a holding company or a subsidiary means a holding company or a subsidiary (as the case may be) as defined in section 1159 of the CA 2006 and for the purposes only of the membership requirement contained in sections 1159(1)(b) and (c), a company shall be treated as a member of another company even if its shares in that other company are registered in the name of:

1.11.1 another person (or its nominee), by way of security or in connection with the taking of security; or

1.11.2 its nominee.

1.12 A reference to the Sellers shall include a reference to each of them.

1.13 Unless otherwise expressly provided in this agreement, a reference to **writing** or **written** does not include fax and email.

1.14 Any words following the terms including, include, in particular, for example or any similar expression shall be construed as illustrative and shall not limit the sense of the words, description, definition, phrase or term preceding those terms.

1.15 References to a document in agreed form are to that document in the form agreed by the parties and initialled by the Sellers' Solicitors and the Buyer's Solicitors for identification.

1.16 Unless otherwise provided, a reference to a statute or statutory provision is a reference to it as amended, extended or re-enacted from time to time provided that, as between the parties, no such amendment, extension or re-enactment made after the date of this agreement shall apply for the purposes of this agreement to the extent that it would impose any new or extended obligation, liability or restriction on, or otherwise adversely affect the rights of, any party.

1.17 A reference to a statute or statutory provision shall include all subordinate legislation made from time to time under that statute or statutory provision.

1.18 Any reference to an English legal term for any action, remedy, method of judicial proceeding, legal document, legal status, court, official or any legal concept or thing shall, in respect of any jurisdiction other than England, be deemed to include a reference to that which most nearly approximates to the English legal term in that jurisdiction.

1.19 Any obligation on a party not to do something includes an obligation not to allow that thing to be done.

1.20 In assessing damages for any Substantiated Claims in respect of a Relevant Claim, no Seller shall be liable to the Buyer for any special, indirect or consequential loss including (without

prejudice to the generality of the foregoing) loss of profits, loss of market share and loss of goodwill, even if the loss was reasonably foreseeable.

2. **Sale and purchase**

2.1 On the terms of this agreement and subject to the Conditions, at Completion the Sellers shall sell and the Buyer shall buy, with effect from Completion, the Sale Shares with full title guarantee and free from all Encumbrances, together with all rights that attach (or may in the future attach) to the Sale Shares including, in particular, the right to receive all dividends and distributions declared, made or paid on or after the date of this agreement (and, in the case of the Preference Shares, all rights to receive accumulated but unpaid dividends).

2.2 Each Seller waives any rights of pre-emption or other restrictions on transfer in respect of the Sale Shares (or any of them) conferred by the Company's articles of association or otherwise (including, for the avoidance of doubt, the transfer of shares by New Wave pursuant to article 9.1 of the articles of association of the Company).

2.3 New Wave consents to its Preference Shares being dealt with as set out in clause 3.1 as opposed to being redeemed pursuant to article 3.1 of the articles of association of the Company.

2.4 The Buyer is not obliged to complete the purchase of any of the Sale Shares unless the purchase of all the Sale Shares is completed simultaneously.

2.5 Those of the Sellers that are party to a subscription and shareholders agreement relating to the Company dated 2 December 2011 as amended by a deed of amendment and dated 20 December 2012 hereby agree to its termination as at and with effect from Completion.

3. **Purchase Price**

3.1 The Purchase Price is £10,000,000 as adjusted in accordance with clause 5, plus the Deferred Consideration, which shall be satisfied by the Buyer:

3.1.1 paying £5,000,000 in cash on Completion, such payment to be made in accordance with clause 3.4 (**Cash Consideration**) less the Retention to be dealt with in accordance with clause 6.2.2 and Schedule 10;

3.1.2 allotting and issuing on Completion to the Sellers credited as fully paid, the number of Consideration Shares having an aggregate value (as determined in accordance with clause 4.2) which is as close as possible to £5,000,000 without issuing fractions of a Consideration Share in the numbers set out against their respective names in column 7 of Schedule 1;

3.1.3 paying the Deferred Consideration in the amounts and on the dates determined in accordance with Schedule 5; and

3.1.4 any further sums that may become payable to the Sellers pursuant to clause 3.6.

The Cash Consideration, the Consideration Shares and the Deferred Consideration shall be apportioned between the Sellers in accordance with their Respective Proportions. As a priority application before the apportionment of the balance of the Cash Consideration there shall be first paid to New Wave the sum of £[**] being equal to the aggregate Issue Price (as defined in the articles of association of the Company) together with the Dividend Arrears on the Preference Shares.

3.2 Each Optionholder hereby agrees to the amounts listed against that Optionholders names in columns 8 and 9 of the table in Schedule 1 representing (i) the aggregate exercise monies and (ii) any Tax which arises in respect of his or her Option and which the Company must account to HMRC, shall be deducted from that Optionholders entitlement to the proportion of the Cash Consideration payable to them in accordance with the terms of this agreement. The Buyer and each of the Optionholders each agree that the amount listed against that Optionholders name in columns 8 and 9 of the table in Schedule 1 will be paid by the Buyer to the Company on behalf of the Optionholder at Completion and the Company will account to HMRC in respect of the amount representing Tax in satisfaction of any Tax due, and the Buyer shall procure that the Company shall account promptly to HMRC for all Tax, PAYE and NICs on the Options.

3.3 To the extent that the Cash Consideration payable to an Optionholder at Completion is insufficient to cover the obligations set out in clause 3.2 above each such Optionholder shall put the Company in funds for any shortfall at Completion, and where such individual has provided a sum to the Company which is in excess of this actual liability to pay the Company shall return (and the Buyer shall procure that the Company shall so return) the excess to the relevant Optionholder within 15 Business Days following Completion.

3.4 All payments to be made to the Sellers under this agreement shall be made in sterling by electronic transfer of immediately available funds to the Sellers' Solicitors (who are irrevocably authorised by the Sellers to receive the same). Payment in accordance with this clause shall be a good and valid discharge of the Buyer's obligation to pay the sum in question and the Buyer shall not be concerned to see the application of the monies so paid.

3.5 The Purchase Price shall be deemed to be reduced by the amount of any payment made to the Buyer for each and any Relevant Claim.

3.6 The Purchase Price shall be increased by the following sums which shall be paid in accordance with clause 3.3 as follows:

3.6.1 In the event, and to the extent that the Company receives a cash payment from HMRC by way of an R&D Tax Credit in respect of its financial year which ended on 31 March 2016, the Buyer shall pay a further cash amount to the Sellers by way of consideration for the purchase of the Sale Shares as an increase in the Purchase Price equal to [**]% (after the deduction of the costs of recovery) of the R&D Tax Credit so received by the Company.

3.6.2 In the event, and to the extent that, the Company receives a cash payment from HMRC by way of an R & D Tax Credit in respect of its financial year which ended on 31 March 2017, the Buyer shall pay a further cash amount to the Sellers by way of consideration for the purchase of the Sale Shares as an increase in the Purchase Price, as follows:

3.6.2.1 if the payment is less than or equal to £[**], an amount equal to the payment; or

3.6.2.2 if the payment is greater than £[**], an amount equal to £[**] plus [**]; or

3.6.2.3 if the payment is greater than £[**], an amount equal to the excess over £[**], plus £[**].

3.6.3 (Save where clause 3.6.4 applies) In the event, and to the extent that, the Company receives a cash payment from HMRC by way of an R & D Tax Credit in respect of the period commencing on 1 April 2017 and ending on the Completion Date, the Buyer shall pay to the Sellers a further cash amount as an increase in the Purchase Price, by way of consideration for the Sale Shares, equal to the R & D Tax Credit so received by the Company (which shall be determined on a *pro rata temporis* basis on the assumption that such credit is earned on a straight line basis across the accounting period of the Company in which Completion falls).

3.6.4 Any payment to be made pursuant to clause 3.6.2 or 3.6.3 above shall be made within [**] Business Days of the actual receipt into the Company's bank account of the R & D Tax Credit by reference to which such payment is calculated.

3.6.5 In the event, and to the extent that the Company receives a corporation tax credit as a result of the exercise of the Options, the Buyer shall pay a further cash amount to the Sellers by way of consideration for the purchase of the Sale Shares as an increase in the Purchase Price equal to the amount of that corporation tax credit so received by the Company.

4. **Consideration Shares**

4.1 The Consideration Shares shall rank pari passu in all respects with the existing ordinary shares of £0.01 each in the capital of the Buyer, including the right to receive all dividends declared, made or paid after the Completion Date (save that they shall not rank for any dividend or other distribution of the Buyer declared made, or paid by reference to a record date before the Completion Date).

4.2 For the purposes of clause 3.1.2, the value of each Consideration Share shall be 170.4p

4.3 Each Seller undertakes to the Buyer that he shall not, during the nine months following Completion (the **Lock-in Period**), sell, transfer or otherwise dispose of, or create any Encumbrance over, any of the Consideration Shares (or any interest in them) held by the relevant Seller, or enter into any agreement to do so, except in accordance with clause 4.6.

4.4 Each Seller undertakes to the Buyer that for a period of twelve months following the end of the Lock-in Period (the **Orderly Market Period**) he shall not sell, transfer or otherwise dispose of any of the Consideration Shares (or any interest in them) held by the relevant Seller or enter into any agreement to do so unless:

(a) he does so in accordance with clause 4.5 or clause 4.6; or

(b) any such sale, transfer or other disposal takes place through brokers nominated by the Buyer provided that such brokers are able to offer terms as to price, commission and order size which are reasonably in line with such terms offered by other brokers (and for the avoidance of doubt, if such brokers are unable to complete any such sale, transfer or other disposal on such terms within 20 Business Days of it having received the written request to do so by or on behalf of a Seller, that Seller shall be entitled to effect such sale, transfer or other disposal through such broker as he shall decide).

4.5 Each Seller shall be entitled to sell, transfer or otherwise dispose of the Consideration Shares pursuant to Clause 4.4 only under the following conditions:

4.5.1 To sell or dispose of the Consideration Shares under the terms of Clause 4.4(b) only on AIM. The Company has the absolute discretion to permit the selling of the Consideration Shares on the NASDAQ Global Market through the conversion of the Consideration Shares into American Depositary Shares.

4.5.2 To sell, transfer or dispose of up to the lesser of:

i) for each Seller, one-twelfth (1/12th) of the Respective Proportion of the Consideration Shares over the first five Business Days of each calendar month of the Orderly Market Period; or, if less

ii) for each Seller, the Respective Proportion of 30% of the aggregate trading volume calculated over the 21 Business Days immediately prior to the start of each calendar month of the Orderly Market Period in the first five (5) Business Days of each calendar month of the Orderly Market Period.

4.5.3 In the event that the sale or disposal of one-twelfth of the Respective Proportion of the Consideration Shares in the five (5) Business Days' from the start of each calendar month cannot be effected, the unsold or non-disposed Consideration Shares will be added to the Consideration Shares that will be eligible for sale, transfer or disposal in subsequent calendar month(s) by each such Seller.

4.5.4 The Buyer may offer from time to time additional Consideration Shares for sale or disposal under the terms of Clause 4.4(b) to those Consideration Shares defined in Clause 4.5.2. Such an offer will be made in writing (including by email) by the Buyer to each Seller.

4.6 Nothing in clause 4.3, 4.4 or 4.5 shall prevent a Seller from selling, transferring or otherwise disposing of any Consideration Shares (or any interest in them):

4.6.1 in acceptance of a general offer made in accordance with the City Code on Takeovers and Mergers by any third party for the whole of the ordinary share capital of the Buyer (other than any ordinary share capital owned by the offeror or any concert party of the offeror);

4.6.2 pursuant to an irrevocable commitment to accept any offer made in accordance with the City Code on Takeovers and Mergers for the whole of the ordinary share capital of the Buyer (other than any ordinary share capital owned by the offeror or any concert party of the offeror);

4.6.3 where such disposal is made pursuant to an offer by the Buyer to purchase its own shares which is made on identical terms to all holders of ordinary shares in the Buyer and otherwise complies with the CA 2006 and the AIM Rules;

4.6.4 pursuant to any scheme of reconstruction under section 110 of the Insolvency Act 1986 in relation to the Buyer;

4.6.5 pursuant to any compromise or arrangement under Part 26 of the CA 2006 which is agreed by the requisite majority of the members of the Buyer and sanctioned by the court;

4.6.6 with the prior written consent of the Buyer; or

4.6.7 where the sale, transfer or other disposal is made (whether inter vivos or by testamentary disposition or on intestacy) to:

4.6.7.1 a member of the Seller's family; or

4.6.7.2 trustees of any trust, the principal beneficiaries of which are primarily the Seller and/or members of his family,

4.6.7.3 any person within the meaning of paragraphs c(iii) to (v) of the definition of "related party" in the AIM Rules as if that Seller fell within paragraphs (a) and/or (b) of such definition,

and provided that the disposal is made after notice in writing has been given to the Buyer and the proposed recipient of the Consideration Shares concerned has entered into an agreement with the Buyer (on terms reasonably acceptable to the Buyer) to be bound by the terms of clauses 4.3 and 4.4 in respect of the remainder of the Lock-in Period and the Orderly Market Period respectively;

4.6.8 where the sale, transfer or other disposal is made to the extent that the sale proceeds (net of incidental costs) are required by the relevant Seller to meet and are wholly applied in meeting, any liability of the Sellers arising under any Relevant Claim.

4.7 For the avoidance of doubt no commission shall be payable to the Company's nominated broker in respect of any transfer of Consideration Shares transferred in any of the circumstances set out in clause 4.6 (other than clause 4.6.8) where the Seller is obliged (whether by this agreement or otherwise) by the Buyer to dispose of such Consideration Shares via the nominated broker.

4.8 For the purposes of clause 4.3 and 4.4 the Consideration Shares shall include:

4.8.1 any shares held by each Seller arising out of the consolidation, conversion or subdivision of any of the Consideration Shares; and

4.8.2 any shares acquired by reference to the Consideration Shares, whether by way of a bonus or rights issue, pre-emption right or otherwise, or in exchange or substitution for any of the Consideration Shares.

4.9 The Buyer shall use its best endeavours to procure admission of the Consideration Shares to AIM becoming effective in accordance with the AIM Rules (the **Listing Condition**).

4.10 If the Listing Condition shall not have been satisfied within 15 Business Days of Completion, the Buyer shall pay the Sellers £5,000,000 in cash in accordance with clause 3.3 and such cash shall be distributed to the Sellers in proportion to the number of Consideration Shares that would have been issued to the Sellers and from the time of payment of such cash the Sellers shall hold the Consideration Shares to the order of the Buyer and shall (at the Buyer's cost) act in accordance with any lawful instructions given by the Buyer to transfer, cancel or otherwise dispose of the Consideration Shares in such manner as the Buyer shall direct. In the case that cash shall be paid instead of Consideration Shares, all provisions relating to the Consideration Shares shall apply to the cash in so far as possible (save in respect of any provisions of clause 4.3 and 4.4).

5. **Purchase Price Adjustment**

5.1 The Completion Payment shall be adjusted as at Completion by

5.1.1 adding an amount equal to the Estimated Cash; and

5.1.2 subtracting an amount equal to the Estimated Indebtedness.

5.2 The Buyer shall pay the Completion Payment to the Sellers in cash on Completion on account of the Purchase Price, less the Retention.

5.3 The parties shall procure that the Purchase Price Statement (adjusted pursuant to clause 5.1 above) is prepared and agreed or determined (as the case may be) in accordance with Schedule 4.

5.4 The following payments shall be made on or before the Adjustment Date:

5.4.1 if the amount of the Purchase Price as set out in the Purchase Price Statement exceeds the Completion Payment, the Buyer shall (subject to Clause 5.6) pay to the Sellers an amount equal to the excess; or

5.4.2 if the amount of the Purchase Price as set out in the Purchase Price Statement is less than the Completion Payment, the Sellers shall pay to the Buyer an amount equal to the shortfall.

5.5 Any payment due to the Buyer under clause 5.4 shall first be met out of the Retention in accordance with Schedule 10. To the extent that the Retention is insufficient, any further payment shall be made by electronic transfer to such account of the Buyer or the Buyer's Solicitors as is notified to the Sellers by or on behalf of the Buyer no later than 2 Business Days before the Adjustment Date and such payment shall be made by the Sellers in their Respective Proportions.

5.6 If, at the Adjustment Date, any amount is due for payment by the Sellers to the Buyer in respect of a Substantiated Claim the Buyer shall be entitled (at its sole discretion) to satisfy all (to the extent possible) or part of the Sellers' outstanding payment obligation by way of set-off against any amount that is payable by the Buyer under clause 5.4.1, and to treat its obligation to pay that sum as being reduced pro tanto by the amount so set off.

6. **Completion**

6.1 Completion shall take place on the Completion Date at the offices of the Buyer's Solicitors or at such other place as is agreed by the parties in writing.

6.2 At Completion:

6.2.1 the Sellers shall:

6.2.1.1 deliver or cause to be delivered to the Buyer the items listed in Schedule 3;

6.2.1.2 procure that a board meeting of the Company is held at which the matters set out in paragraph 2 Schedule 3 are carried out; and

6.2.1.3 deliver any other documents referred to in this agreement as being required to be delivered by the Sellers at Completion; and

6.2.1.4 pay the Insurance Premium Contribution to the Company;

6.2.2 the Buyer shall (subject to the Sellers complying with their obligations in clause 6.2.1):

6.2.2.1 pay the Completion Payment in accordance with clause 3.1 and clause 5.1 (less the Retention);

6.2.2.2 pay the Retention into the Retention Account;

6.2.2.3 deliver to the Sellers a certified copy of the resolution, in agreed form, adopted by the Buyer's board of directors approving Completion and the execution and delivery of any Transaction Documents to be delivered by the Buyer at Completion and the allotment and issue of the Consideration Shares to the Sellers;

6.2.2.4 procure that each of the Sellers shall be entered into the Buyer's register of members (shareholders) as a holder of the relevant number of Consideration Shares and deliver evidence of such

registration to the Sellers and share certificates in respect thereof as soon as practicable thereafter;

6.2.2.5 allot and issue the Consideration Shares to the Sellers in accordance with clause 3.1.2; and

6.2.2.6 promptly deliver to the Company's nominated adviser (with a copy to the Sellers' Representatives) a duly signed application to admit the Consideration Shares to AIM.

6.3 As soon as possible after Completion, the Sellers shall send to the Buyer all records, correspondence, documents, files, memoranda and other papers relating to the Company which are not kept at the Property and which are not required to be delivered at Completion.

6.4 The Buyer shall procure that the Company shall pay the premium due on the Policy within [**] Business Days of Completion.

7. **Warranties**

7.1 Each of the Sellers severally warrants to the Buyer that except as Disclosed as at Completion each of the Fundamental Warranties is accurate, true and not misleading in relation to themselves

7.2 Each of the Non-New Wave Sellers severally warrant to the Buyer that except as Disclosed as at Completion each Warranty (except the Fundamental Warranties) is true, accurate and not misleading.

7.3 Warranties qualified by the expression "so far as the Sellers are aware" or any similar expression qualifying the knowledge of a Seller are deemed to be given to the best of the knowledge, information and belief of each of the Sellers after they have made due and careful enquiries of David Williams, Giorgio Reggiani and John Wain.

7.4 Each of the Warranties is separate and, unless otherwise specifically provided, is not limited by reference to any other Warranty or any other provision in this agreement.

7.5 The only Warranties in connection with the Properties are those contained in the following paragraphs of Part 1 of Schedule 6:

7.5.1 Schedule 6 Part 1 -29 (Properties); and

7.5.2 Schedule 6 Part 1 -30 (Environmental).

7.6 Except for the matters Disclosed, no information of which the Buyer (or any of its agents or advisers) has knowledge (in each case whether actual, constructive or imputed), or which could have been discovered (whether by investigation made by the Buyer or on its behalf), shall prejudice or prevent any Relevant Claim or reduce the amount recoverable under any Relevant Claim. Notwithstanding the forgoing provisions of this Clause the Buyer confirms that it is not aware of any matters that entitle it (or would entitle it) to bring a Relevant Claim.

7.7 The Sellers agree that the supply of any information by or on behalf of the Company, or any of its employees, directors, agents or officers (Officers) to the Sellers or their advisers in connection with the Warranties, the Disclosure Letter or otherwise shall not constitute a warranty, representation or guarantee as to the accuracy of such information in favour of the Sellers.

The Non-New Wave Sellers unconditionally and irrevocably waive all and any rights and claims that they may have against any of the Company or the Officers on whom they have, or may have, relied in connection with the preparation of the Disclosure Letter, or agreeing the terms of this agreement, and further undertake to the Buyer, the Company, and the Officers not to make any such claims.

The New Wave Sellers unconditionally and irrevocably waive all and any rights and claims that they may have against any of the Company or the Officers (with the exception of the Key Sellers in connection with a Fraud Claim) on whom they have, or may have, relied in connection with the preparation of the Disclosure Letter, or agreeing the terms of this agreement, and further undertake to the Buyer, the Company, and the Officers (with the exception of the Key Sellers in connection with a Fraud Claim) not to make any such claims.

For the purposes of this clause 7.7, "Fraud Claim" shall mean a Relevant Claim which arises or is delayed as a result of the dishonesty, fraud, wilful misconduct or wilful concealment by a Key Seller and for which the Buyer is entitled to bring a claim against the Sellers in accordance with clause 8.16 and where the New Wave Sellers suffer any loss or liability in connection with such claim

7.8 For the avoidance of doubt, the Buyer's rights and remedies in respect of any Relevant Claim shall not be affected by Completion, or any termination of (or the Buyer's failure to terminate) this agreement.

7.9 The Buyer warrants to the Sellers that the execution and delivery of this agreement and the transactions contemplated herein (including, but not limited to, the issue of the Consideration Shares) have, where required, been duly and validly authorised and no other proceedings or actions are necessary to authorise this agreement or to complete the transactions contemplated herein.

7.10 If and to the extent that a liability arises in respect of a Substantiated Claim which is not otherwise excluded pursuant to the provisions of clause 8 (a Claim Liability), the provisions of this clause shall operate to allocate the relevant Claim Liability amongst the Sellers, subject at all times to the Cap. Accordingly the Claim Liability shall:

7.10.1 first, fall to the account of the Non-New Wave Sellers, provided that (i) the maximum amount to which the Non-New Wave Sellers shall be obliged to contribute towards the Claim Liability shall be an amount equal to 50 per cent of the aggregate unadjusted Cash Consideration actually received by such Non-New Wave Sellers on the Completion Date (after the amounts payable to New Wave in respect of the purchase of the Preference Shares together with the interest accrued thereon have been settled from the aggregate unadjusted Cash Consideration and excluding any sum in respect of which a set-off or deduction is made from the Retention) (the First Call Cash) and (ii) provided always that the contribution amounts for each Non-New Wave Seller to the Claim Liability shall be strictly made in the proportions by which each Non-New Wave Seller's amount of First Call Cash bears to the aggregate amount of First Call Cash;

7.10.2 second, if and to the extent that the Claim Liability is not settled in full by the First Call Cash, then any such remaining residual Claim Liability shall fall to the account of the Non-New Wave Sellers, who shall be obliged to satisfy such remaining Claim Liability through contributing the proceeds realised (net of expenses) from the sale of Consideration Shares which were issued to them on or shortly after the Completion Date, provided that (i) in satisfying the Claim Liability, the maximum liability of the Non-New Wave Sellers shall be the proceeds (net of expenses) arising from the sale of 37.5 per cent of the aggregate number of Consideration Shares issued to them on or shortly after the Completion Date (the First Call Shares) and (ii) if at such time any or all of the First Call Shares have already been sold, any relevant Non-New Wave Seller shall, subject to (iii), be obliged to contribute such amount of the actual realised proceeds (net of expenses) from the sale of such First Call Shares towards satisfying its proportion of the Claim Liability and (iii) the contributions towards the Claim Liability by each Non-New Wave Seller shall be made strictly by reference to the proportion by which each Non-New Wave Seller's number of Consideration Shares bears to the aggregate number of Consideration Shares issued to the Non-New Wave Sellers;

7.10.3 third, if and to the extent that the Claim Liability is not settled in full by the First Call Cash together with the proceeds realised through the sale of First Call Shares, then any such remaining residual Claim Liability shall fall to the account of the New Wave Sellers, who agree to bear such liability notwithstanding that they may

not have provided a warranty or covenant in relation to such matter, or personally been in breach thereof provided that (i) the maximum amount to which the New Wave Sellers shall be obliged to contribute towards the Claim Liability shall be an amount equal to 50 per cent of the aggregate unadjusted Cash Consideration actually received by such Non-New Wave Sellers on the Completion Date (after the amounts payable to New Wave in respect of the purchase of the Preference Shares together with the interest accrued thereon have been settled from the aggregate unadjusted Cash Consideration and excluding any sum in respect of which a set-off or deduction is made from the Retention) (the Second Call Cash) and (ii) provided always that the contribution amounts for each New Wave Seller to the Claim Liability shall be strictly made in the proportions by which each New Wave Seller's amount of Second Call Cash bears to the aggregate amount of Second Call Cash;

7.10.4 fourth, if and to the extent that the Claim Liability is not settled in full by the First Call Cash together with the proceeds realised through the sale of First Call Shares and the Second Call Cash, then any such remaining residual Claim Liability shall fall to the account of the Non-New Wave Sellers, who shall be obliged to satisfy such remaining Claim Liability through contributing the proceeds realised (net of expenses) from the further sale of Consideration Shares which were issued to them on or shortly after the Completion Date, provided that (i) in satisfying the Claim Liability, the maximum liability of the Non-New Wave Sellers shall be the proceeds (net of expenses) arising from the sale of 37.5 per cent of the aggregate number of Consideration Shares issued to them on or shortly after the Completion Date (the Second Call Shares) and (ii) if at such time any or all of the Second Call Shares have already been sold, any relevant Non-New Wave Seller shall, subject to (iii), be obliged to contribute such amount of the actual realised proceeds (net of expenses) from the sale of such Second Call Shares towards satisfying its proportion of the Claim Liability and (iii) the contributions towards the Claim Liability by each Non-New Wave Seller shall be made strictly by reference to the proportion by which each Non-New Wave Seller's number of Consideration Shares bears to the aggregate number of Consideration Shares issued to the Non-New Wave Sellers;

7.10.5 fifth, if and to the extent that the Claim Liability is not settled in full by the First Call Cash, the Second Call Cash and the proceeds realised through the sale of First Call Shares and Second Call Shares, then any such remaining residual Claim Liability shall fall to the account of the New Wave Sellers, who agree to bear such liability notwithstanding that they may not have provided a warranty or covenant

in relation to such matter, or personally been in breach thereof, who shall be obliged to satisfy such remaining Claim Liability through contributing the proceeds realised (net of expenses) from the sale of Consideration Shares which were issued to them on or shortly after the Completion Date, provided that (i) in satisfying the Claim Liability, the maximum liability of the New Wave Sellers shall be the proceeds (net of expenses) arising from the sale of 75 per cent of the aggregate number of Consideration Shares issued to them on or shortly after the Completion Date (the Third Call Shares) and (ii) if at such time any or all of the Third Call Shares have already been sold, any relevant New Wave Seller shall, subject to (iii), be obliged to contribute such amount of the actual realised proceeds (net of expenses) from the sale of such Third Call Shares towards satisfying its proportion of the Claim Liability and (iii) the contributions towards the Claim Liability by each New Wave Seller shall be made strictly by reference to the proportion by which each New Wave Seller's number of Consideration Shares bears to the aggregate number of Consideration Shares issued to the New Wave Sellers;

7.10.6 thereafter, if and to the extent that the Claim Liability is not settled in full by the First Call Cash, the Second Call Cash and the proceeds realised through the sale of First Call Shares, Second Call Shares and Third Call Shares then any such remaining residual Claim Liability shall fall to the account of each of the Non-New Wave Sellers on the one hand and the New Wave Sellers, who agree to bear such liability notwithstanding that they may not have provided a warranty or covenant in relation to such matter, or personally been in breach thereof, on the other hand, in equal proportions between each such group, such residual Claim Liability to be satisfied by the entitlements of each group to receive actual payments from the Buyer of Deferred Consideration and each respective group's contribution to be satisfied (i) by way of the relevant Sellers contributing any Deferred Consideration payments actually received, and, if such amounts are insufficient, then (ii) by way of set-off or deduction once such Deferred Consideration becomes payable;

7.11 Notwithstanding the provisions of clause 7.10 the Buyer shall be entitled to bring proceedings in respect of any Relevant Claim against all Sellers simultaneously, provided that it may only recover in accordance with the order of priority set out in clause 7.10.

7.12 Notwithstanding the provisions of this clause 7, Schedule 6 or Schedule 7 the Sellers shall have no liability for any Insured Risk. To the extent that the Policy is avoided by the Insurers as a direct consequence only of:

7.12.1 any misrepresentation or failure to disclose to the Insurers any facts actually known to the Sellers or the Company at the time the Policy was granted; or

7.12.2 the occurrence of any of the events set out in clause 6.2 of the Policy,

the PropCo Sellers shall be jointly and severally liable for the Insured Risks subject always to the limitations set out in clause 8 of this agreement as if the term Sellers was substituted with PropCo Sellers.

8. **Limitations on claims**

8.1 This clause 8 limits the liability of each of the Sellers in relation to any Relevant Claim.

8.2 The maximum aggregate liability of the Sellers in relation to all Relevant Claims (inclusive of all claims, costs, expenses, reasonably incurred legal and professional fees and disbursements, VAT, interest and penalties) shall not exceed the sum of [**] pounds sterling (£[**]) (the **Cap**) and each Seller's individual maximum aggregate liability in respect of any such Relevant Claims shall be limited in accordance with the provisions of clause 7.10.

8.3 A Seller shall not be liable:

8.3.1 in respect of a Relevant Claim (excluding a Tax Protection Claim) unless the amount of each such Substantiated Claim (together with any such connected Substantiated Claims) exceeds the sum of £[**] in which case in which case the liability of the relevant Sellers shall be for the total amount of such Substantiated Claims (and not limited to the amount above the threshold specified in this clause 8.3.1); and

8.3.2 in respect of a Relevant Claim unless the aggregate amount of all such Substantiated Claims either individually or when aggregated with all other Relevant Claims (other than those excluded under clause 8.3.1), exceeds the sum of £[**], in which case the liability of the relevant Sellers shall be for the total amount of such Substantiated Claims (and not limited to the amount above the threshold specified in this clause 8.3.2).

For the purposes of this clause 8.3:

a Relevant Claim is connected with another Relevant Claim if such claims arise from the same facts, events or circumstances; and

8.4 Each Seller shall not be liable in respect of a Relevant Claim unless notice in writing summarising the nature of the Relevant Claim (in so far as it is known to the Buyer) and, as far as is reasonably practicable, the amount claimed, has been given by or on behalf of the Buyer to each of the Sellers' Representatives as soon as practicable following the Buyer becoming aware that such circumstances entitles it to bring a Relevant Claim, but in any event:

8.4.1 in the case of a claim in respect of the Tax Warranties, on or before the date falling on the [**] anniversary of the Completion Date; or

8.4.2 in any other case, on or before the expiry of [**] months from the Completion Date.

8.5 Any Relevant Claim in respect of which notice has been given by the Buyer pursuant to clause 8.4 above shall lapse entirely if proceedings are not issued in respect of such claim within 12 months of service of the notice pursuant to clause 8.4 above, or in the case of a Relevant Claim to which clause 8.7.4 applies, within eighteen months of the date stated in clause 8.4.2 above, during which time the Buyer shall be at liberty to negotiate with the relevant party to crystallize the contingent liability into an actual liability which shall thereupon form the basis of the Relevant Claim.

8.6 The Sellers shall not be liable for a Relevant Claim to the extent that the Relevant Claim:

8.6.1 arises from facts, events or circumstances that have been Disclosed;

8.6.2 relates to a matter specifically and fully provided for in the Accounts;

8.6.3 arises from any voluntary act carried out by the Buyer or any person connected with the Buyer after Completion which is not in the ordinary course of business or pursuant to a legally binding obligation entered into or which arose prior to Completion which is required by law;

8.6.4 arises from any change in any law, rule, regulation, interpretation of the law or administrative practice of any government, governmental department, agency or regulatory body (whether or not having the force of law) or any increase in the rates, methods of calculation or scope of Taxation or any imposition of Taxation after the date of this agreement;

8.6.5 arises from any change of accounting policy or practice of the Company after Completion;

8.6.6 would not have arisen but for any claim, election, surrender or disclaimer made or omitted to be made or notice or consent given or omitted to be given by the Buyer's Group under any Tax Statute the making or giving of which was taken into account in computing the provision for Tax (including the provision for deferred taxation) in the Accounts the Management Accounts or the Purchase Price Statement; or

8.6.7 arises from any winding-up or cessation after Completion of any business or trade carried on by the Company (other than where such occurs as a consequence of a breach of this agreement by the Sellers).

8.7 The liability of each relevant Seller for any Relevant Claim shall be reduced to the extent that:

8.7.1 there has been a corresponding saving of or credit in relation to Tax by the Buyer or any member of the Buyer's Group in respect of the loss or liability giving rise to such claim;

8.7.2 the loss or damage is recovered by the Buyer, a member of the Buyer's Group or the Company under any policy of insurance, provided that in the event that the insurance premium payable upon the renewal of the relevant insurance policy increases at the policy renewal date immediately following the date of such claim as compared to the prior premium amount paid for such policy and such increase is directly attributable to the fact of such insurance claim having been made, then any such excess over and above the prior premium amount paid for such policy shall be excluded from the protections of this clause 8.7.2;

8.7.3 it represents any liability for Tax arising in the ordinary course of business of the Company since the Accounts Date;

8.7.4 the Relevant Claim is based upon a liability which is contingent only, unless and until such contingent liability becomes an actual liability or until the same is finally adjudicated within the time period provided in clause 8.5 above (and in the event that such liability does not cease to be contingent before the expiration of such period it shall lapse);

8.7.5 provision or reserve in respect of the matter giving rise to such Relevant Claim shall have been made in the Accounts, the Management Accounts or the Purchase Price Statement (and expressly identified) or to the extent that the matter giving rise to such claim shall have been noted or taken into account in the Accounts, the Management Accounts or the Purchase Price Statement (and expressly identified);

8.7.6 any sum is received by the Company which has previously been written off as irrecoverable in the Accounts;

8.7.7 the relevant amount has previously been withheld from the Retention or otherwise recovered from the Sellers (or any of them).

8.8 In assessing any liabilities, damages or other amounts recoverable by the Buyer as a result of any Relevant Claim there shall be taken into account any amount of any Tax relief obtained or obtainable by the Buyer's Group and any amount by which any Tax for which the Buyer's Group is or may be liable to be assessed or accountable is reduced or extinguished, arising directly or indirectly in consequence of the matter which gives rise to such claim.

8.9 The Buyer shall not be entitled to recover more than once under this agreement in respect of the same loss or liability.

8.10 If the Sellers pay to the Buyer an amount in respect of any Relevant Claim and the Buyer or any member of the Buyer's Group subsequently recovers from another person an amount in respect of the same loss or liability the Buyer or relevant member of the Buyer's Group (as appropriate) shall as soon as reasonably practicable pay to the Sellers an amount equal to the Sum Recovered.

For the purposes of this clause 8:

"Sum Recovered" means an amount equal to so much of the amount recovered from the other person by the Buyer or a member of the Buyer's Group as does not exceed the amount of any payment by the Sellers in satisfaction of the relevant claim less any Tax payable by the Buyer or member of the Buyer's Group in respect of that receipt and less all reasonable costs and expenses of the Buyer or the relevant member of the Buyer's Group properly incurred in recovering that receipt.

8.11 The Buyer shall use its best endeavours to procure that the Company preserves all documents, records, correspondence, accounts and other information whatsoever which are in the possession of the Buyer or the Company and which the Buyer and the Company in good faith believe or are aware are relevant to any Relevant Claim or potential Relevant Claim.

8.12 The Buyer shall:

8.12.1 notify each of the Sellers' Representatives of any claim by a third party against the Company, the Buyer or any member of the Buyer's Group which has or may give rise to a Relevant Claim (a **Third Party Claim**) as soon as reasonably practicable after the Buyer becomes aware of it; and

8.12.2 provided that such action does not constitute the waiver of legal privilege as against the relevant third party, the Buyer shall keep the Sellers' Representatives fully informed of all developments in respect of the Third Party Claim and all acts and notices in respect thereof, consult on a regular basis in good faith with the Sellers' Representatives as to any action to be taken in connection with that Third Party

Claim and act in accordance with the reasonable representations and views of the Sellers' Representatives (but without prejudice to the legitimate commercial interests of the Buyer and the Company)

8.13 In the event that the Sellers at any time after the date hereof shall wish to take out insurance against their liability hereunder the Buyer undertakes to provide such information as the prospective insurer may reasonably require before effecting such insurance, subject to such prospective insurer agreeing in writing to maintain the confidentiality of such information to the extent reasonably required by the Buyer.

8.14 The Buyer will take or procure the taking of all such reasonable steps and action as may be necessary or as the Sellers may require in order to mitigate any loss in respect of a Relevant Claim (for the avoidance of doubt including, but not limited to, having regard to the representations of the Sellers pursuant to clause 8.13 (Third Party Claims) above. Nothing in this agreement shall or shall be deemed to relieve the Buyer of any common law or other duty to mitigate any loss or damage incurred by it.

8.15 Save for the provisions of clause 7.10 as to the priority of liability assumed by the relevant Sellers in respect of a Relevant Claim, nothing in this clause 8 applies to exclude or limit the liability of any of the Sellers:

8.15.1 to the extent that a Relevant Claim arises or is delayed as a result of dishonesty, fraud, wilful misconduct or wilful concealment by any of the Sellers, their agents or advisers, provided that (i) such claim must be brought before the fifth anniversary of Completion and (ii) in the event that such claim arises on account of the dishonesty, fraud, wilful misconduct or wilful concealment by a Non-New Wave Seller, the Buyer acknowledges that any claim for recovery of loss arising as a result of the same shall be made first as against the Non-New Wave Sellers and if and only to the extent that it is not able to recover its loss in full from Cash Consideration, the sale of (or proceeds from the sale of) Consideration Shares, set off or repayment of either Deferred Consideration or Transfer Incentives in each case issued to or paid to the Non-New Wave Sellers, shall the New Wave Sellers have any liability in respect of any such claim; and

8.15.2 in respect of a breach of the Fundamental Warranties, provided that the maximum aggregate liability of each Seller in relation to all Fundamental Warranty Claims (inclusive of all claims, costs, expenses, reasonably incurred legal and professional fees and disbursements, VAT, interest and penalties) shall not exceed a sum equal to the aggregate of the relevant Seller's Respective Proportion of each of the unadjusted Cash Consideration (excluding any sum in respect of which

a set-off or deduction is made from the Retention), the Share Consideration and the Deferred Consideration (to the extent such sums are actually received by that Seller).

8.16 The Sellers shall not plead the Limitation Act 1980 in respect of any Tax Protection Claim.

8.17 No liability shall arise and no claim may be made in respect of a Relevant Claim to the extent that the matter giving rise to such claim is remediable, unless the Buyer shall have given written notice thereof to each of the Seller's Representatives in accordance with clause 8.5 and such matter shall not have been remedied to the reasonable satisfaction of the Buyer within the period of 30 days following the date of service of such notice.

9. **The Buyer's Warranties**

9.1 The Buyer warrants to the Sellers that, each of the following statements is true, accurate and not misleading on the date of this agreement:

9.1.1 the Buyer is duly incorporated in England & Wales;

9.1.2 the Buyer has full power and authority to enter into and perform this agreement and each of the other Transaction Documents to be entered into by it and the provisions of this agreement and each of such other Transaction Documents will, when executed, constitute valid and binding obligations on the Buyer, in accordance with their respective terms;

9.1.3 the execution and delivery of, and the performance by the Buyer of its obligations under, this agreement and each of the other Transaction Documents to which it is a party will neither:

9.1.3.1 result in a breach of any provision of its memorandum or articles or any agreement or instrument to which the Buyer or any member of the Buyer's Group is a party or by which the Buyer or any member of the Buyer's Group is bound; nor

9.1.3.2 result in a material breach of any law, regulation, order, judgment, licence, permit, consent or decree of any arbitral tribunal or governmental, regulatory or similar body or agency in any jurisdiction to which any member of the Buyer's Group is a party or by which any of them or their respective assets are bound or affected;

9.1.4 there are no:

9.1.4.1 judgments, orders, injunctions or decrees of any governmental, regulatory or similar body or agency in any jurisdiction or arbitration tribunal outstanding against or affecting any member of the Buyer's Group;

9.1.4.2 law suits, actions or proceedings pending so far as the Buyer is aware or, to the knowledge of the Buyer, threatened against or affecting any member of the Buyer's Group; or

9.1.4.3 investigations by any governmental, regulatory or similar body or agency in any jurisdiction which are pending or, threatened against any member of the Buyer's Group so far as the Buyer is aware,

and which, in any such case, will have a material adverse effect on the ability of the Buyer or the relevant member of the Buyer's Group to execute and deliver, or perform, its obligations under this agreement or any of the other Transaction Documents;

9.1.5 No order has been made, petition presented or meeting convened for the winding up, or for the appointment of any provisional liquidator or in relation to any other process whereby the business is terminated and the assets of the Buyer or any member of the Buyer's Group are distributed amongst the creditors and/or shareholders or other contributors, and there are no cases or proceedings under any applicable insolvency, reorganisation or similar laws in any relevant jurisdiction, and so far as the Buyer is aware, no events have occurred which, under applicable laws, would be reasonably likely to justify any such cases or proceedings;

9.1.6 Neither the Buyer nor any member of the Buyer's Group has taken any step with a view to a suspension of payments or a moratorium of any indebtedness or has made any voluntary arrangement with any of their creditors or is insolvent or unable to pay their debts as they fall due;

9.1.7 The Buyer will have sufficient cash resources, available lines of credit or other sources of immediately available funds to enable it to fulfil all of its obligations under this agreement at Completion;

9.1.8 The directors of the Buyer will have sufficient authority for the purposes of section 551 of the CA 2006 and the AIM Rules to allot the Consideration Shares without needing any further sanction or approval by shareholders of the Buyer;

9.1.9 The issued share capital of the Buyer as at the date of this agreement consists of 70,629,352 shares of £0.01 each in the capital of the Buyer;

9.1.10 There are no other class of shares in the Buyer other than ordinary shares of £0.01 each;

9.1.11 The Consideration Shares shall be issued at Completion, subject to satisfaction of the Listing Condition, free from all Encumbrances;

9.1.12 So far as the Buyer is aware there are no matters or facts in existence which might result in the Consideration Shares being refused admission to AIM; and

9.1.13 The Buyer has complied in all material respects with all of its continuing obligations under the AIM Rules and (to the extent they apply to the Buyer) the Disclosure Guidance and Transparency Rules published by the Financial Conduct Authority.

9.2 The Buyer acknowledges that the Sellers are entering into this agreement on the basis of, and in reliance on, clause 9.1.

10. **Tax Covenant**

The provisions of Schedule 7 apply in this agreement in relation to Tax.

11. **Restrictions on the Sellers**

11.1 In this clause, the following words and expressions shall have the following meanings:

11.2 Restricted Business**:** any business that is or would be in competition with any part of the Business as being carried on at the Completion Date.

11.3 Restricted Customer**:** any person who is at Completion, or who has been at any time during the period of [**] immediately preceding the Completion Date, a client or customer of, or in the habit of dealing with, the Company or any of the Subsidiaries.

11.4 Restricted Person**:** any person who is at Completion, or who has been at any time during the period of [**] immediately preceding the Completion Date, employed or directly or indirectly engaged by the Company or any of the Subsidiaries in an executive, managerial, sales or technical role at an annual rate of remuneration (including commission, if any,) of not less than £[**].

11.5 Each Key Seller undertakes to each of the Buyer and the Company that he or she shall not directly or indirectly:

11.5.1 at any time during the period of 24 months commencing on the Completion Date, world wide carry on or be employed, engaged, concerned or interested in, or in any way directly assist, a Restricted Business;

11.5.2 at any time during the period of 24 months commencing on the Completion Date:

11.5.2.1 canvass, solicit or otherwise seek the custom of any Restricted Customer with a view to providing goods or services to them in competition with the Business; or

11.5.2.2 induce or attempt to induce a Restricted Customer to cease conducting business with, or to reduce the amount of business conducted with, or to vary adversely the terms upon which it conducts business with, the Company, or do any other thing which is reasonably likely to have such an effect;

11.5.3 at any time during the period of [**] commencing on the Completion Date, have any business dealings with a Restricted Customer in connection with the provision of goods or services to them in competition with the Business;

11.5.4 at any time during the period of [**] commencing on the Completion Date, induce or attempt to induce any person who is at Completion, or has been at any time during the period of [**] immediately preceding the Completion Date, a supplier of goods or services to the Company, to cease conducting business with, or to reduce the amount of business conducted with, or to vary adversely the terms upon which it conducts business with, the Company, or do any other thing which is reasonably likely to have such an effect;

11.5.5 at any time during the period of [**] commencing on the Completion Date, offer employment to, enter into a contract for the services of, or otherwise entice or attempt to entice away from the Company, any Restricted Person, or procure or facilitate in relation to a Restricted Person the making of any such offer or attempt by any other person;

11.6 Each Seller undertakes to each of the Buyer and the Company that he or she shall not directly or indirectly at any time after Completion (save in respect of any publicity issued by New Wave, with the consent of the Buyer, acting reasonably):

11.6.1 use in the course of any business:

11.6.1.1 the word "Discuva";

11.6.1.2 any trade or service mark, business or domain name, design or logo which, at Completion, is being or has been used by the Company in connection with the Business; or

11.6.1.3 anything which is, in the reasonable opinion of the Buyer, capable of confusion with any of the words, marks, names, designs or logos referred to in clause 11.6.1.1 or clause 11.6.1.2;

11.6.2 at any time after Completion, do or say anything which may be harmful to the reputation of the Company; or

11.6.3 at any time after Completion, present himself or herself (or permit himself or herself to be presented) as:

11.6.3.1 connected in any capacity with the Company (save in the normal course of their employment or engagement by the Company or the Buyer to the extent that such employment or engagement continues after Completion); or

11.6.3.2 interested or concerned in any way in the Sale Shares (or any of them).

11.7 The undertakings in clauses 11.5 and 11.6 are intended for the benefit of, and shall be enforceable by, each of the Buyer and the Company, and shall apply to actions carried out by the relevant Key Seller or Seller (as the case may be) in any capacity (including as shareholder, partner, director, principal, consultant, officer, employee, agent or otherwise) and whether directly or indirectly, on that Seller's own behalf or on behalf of, or jointly with, any other person.

11.8 Nothing in clauses 11.5 and 11.6 shall prevent any Seller from holding for investment purposes only:

11.8.1 units of any authorised unit trust; or

11.8.2 not more than 5% of any class of shares or securities of any company traded on a recognised investment exchange (within the meaning of the Financial Services and Markets Act 2000).

11.9 Each of the undertakings in clauses 11.5 and 11.6 is a separate undertaking by each Seller or Key Seller (as the case may be) in relation to himself or herself and his or her interests and shall be enforceable by the Buyer and the Company separately and independently of their right to enforce any one or more of the other undertakings contained in that clause.

11.10 The parties acknowledge that the Sellers have confidential information relating to the Business and that the Buyer is entitled to protect the goodwill of the Business as a result of buying the Sale Shares. Accordingly, each of the covenants in clause 11.6 is considered fair and reasonable by the parties.

11.11 The consideration for the covenants in clauses 11.5 and 11.6 are included in the Purchase Price.

11.12 Nothing in this clause 11 shall prevent John Wain from:

11.12.1 carrying out any work undertaken in an academic capacity, whether or not such work relates to, or would otherwise compete with, the Business, provided that he shall not, whether directly or indirectly and whether or not in his personal capacity or jointly with any other person (whether as a shareholder, partner, director, principal, consultant, agent or in any other capacity) exploit, or take steps to exploit, any such work for commercial gain or reward; or

11.12.2 in his academic capacity working with, employing or retaining as a consultant any person whom he has so worked with, employed or retained in the 2 years prior to Completion.

12. Confidentiality and announcements

12.1 Each Seller severally undertakes to the Buyer and the Company that he or she shall:

12.1.1 keep confidential the terms of this agreement and the other Transaction Documents, and all and any confidential information, know how or trade secrets in his or her knowledge or possession concerning the business, affairs, customers, clients or suppliers of the Company or any member of the Buyer's Group (provided always that no Seller shall be prohibited from carrying out any work for Bactevo (subject to compliance by Bactevo with the Bactevo Agreements);

12.1.2 not disclose any of the information referred to in clause 12.1.1 in whole or in part to any third party, except as expressly permitted by this clause 12; and

12.1.3 not make any use of any of the information referred to in clause 12.1.1, other than to the extent necessary for the purpose of exercising or performing his or her rights and obligations under this agreement.

12.2 Each Seller undertakes to the other Sellers that they shall keep confidential the terms of this agreement and all confidential information in their knowledge or possession relating to the

other Sellers, and they shall only use the information for the purposes contemplated by this agreement.

12.3 The Buyer undertakes to each Seller that it shall at all times:

12.3.1 keep confidential (and the Buyer shall procure that all other members of the Buyer Group shall at all times keep confidential) the existence and provisions of, and the negotiations relating to, this agreement and any other Transaction Document;

12.3.2 keep confidential all information of a confidential nature that is received or obtained by the Buyer before Completion which relates to any Seller; and

12.3.3 shall use such confidential information only for the purposes contemplated by this agreement or any other Transaction Document or as required for the normal operation of the Company or any member of the Buyer's Group.

12.4 No party shall be obliged to keep confidential or to restrict their use of any information that:

12.4.1 is or becomes generally available to the public other than as a result of its disclosure by such party (or any person to whom that party has disclosed the information in accordance with clause 12.5.1) in breach of this agreement; or

12.4.2 was, is or becomes available to the relevant party on a non-confidential basis from a person who, to that party's knowledge, is not bound by a confidentiality agreement or otherwise prohibited from disclosing the information to that party.

12.4.3 was properly and lawfully in the possession of the relevant party (or such member) before the time that it was disclosed by or acquired from the other party (or, in the case of the Buyer, any other member of the Buyer Group) or its advisers.

12.5 A party may disclose any information that they are otherwise required to keep confidential under this clause 12:

12.5.1 to any of their employees, officers, consultants, representatives or advisers who need to know such information for the purposes of advising on this agreement or facilitating the Transaction or as required for the normal operation of the Company or any member of the Buyer's Group, provided that the party making the disclosure informs the recipient of the confidential nature of the information before disclosure and procures that each recipient shall, in relation to any such information disclosed to them, comply with the obligations set out in this clause 12 as if they were that party. The party making a disclosure under this clause shall, at all times, be liable

for any failure of its recipients to comply with the obligations set out in this clause 12;

12.5.2 with the prior consent in writing of the Buyer or the Sellers' Representatives as appropriate;

12.5.3 if such information relates to one party only, with the prior consent in writing of that party;

12.5.4 to confirm that the Transaction has taken place, or the date of the Transaction (but without otherwise revealing any other terms of the Transaction or making any other announcement);

12.5.5 to the extent that the disclosure is required:

12.5.5.1 by the laws of any jurisdiction to which the relevant party is subject;

12.5.5.2 by an order of any court of competent jurisdiction, or any regulatory, judicial, governmental or similar body, or any Tax Authority or securities exchange of competent jurisdiction;

12.5.5.3 under any arrangement in place under which negotiations relating to terms and conditions of employment are conducted;

12.5.5.4 to make any filing with, or obtain any authorisation from, any regulatory, governmental or similar body, or any Tax Authority or securities exchange of competent jurisdiction; or

12.5.5.5 to protect the relevant party's interest in any legal proceedings,

PROVIDED that in each case (and to the extent they are legally permitted to do so) the party making the disclosure gives the Buyer and the Sellers' Representatives as much notice of the disclosure as possible and consults with such other parties and takes into account their reasonable requests concerning the content of such disclosure.

12.6 Each party shall supply the other parties (or any of them) with such information about itself, its Group or this agreement as they may reasonably require for the purposes of satisfying the requirements of any law or any judicial, governmental, regulatory or similar body or any Tax Authority or securities exchange of competent jurisdiction.

12.7 Subject to clause 12.8 to clause 12.10 (inclusive), no party shall make, or permit any person to make, any public announcement, communication or circular concerning this agreement or

the Transaction (announcement) without the prior written consent of the other parties (such consent not to be unreasonably withheld or delayed).

12.8 Nothing in clause 12.7 shall prevent a party from making an announcement required by law or any governmental or regulatory authority (including any Tax Authority), any securities exchange, or any court or other authority of competent jurisdiction, provided that the party required to make the announcement consults with the other parties and takes into account their reasonable requests concerning the content of the announcement before it is made.

12.9 The parties shall issue a press release in agreed form immediately following Completion.

12.10 The Buyer may at any time after Completion, having consulted with and taken into account the reasonable requests of the Sellers' Representatives, announce its acquisition of the Sale Shares to any employees, clients, customers or suppliers of the Company or any other member of the Buyer's Group.

13. **Further assurance**

13.1 The Sellers shall (and shall use reasonable endeavours to procure that any relevant third party shall) at the Buyer's expense promptly execute and deliver such documents and perform such acts as the Buyer may reasonably require from time to time for the purpose of giving full effect to this agreement.

13.2 Each Seller undertakes to the Buyer that, if and for so long as he or she remains the registered holder of any of the Sale Shares after Completion, he or she shall:

13.2.1 hold such Sale Shares, together with all dividends and any other distributions of profits or other assets in respect of such Sale Shares, and all rights arising out of or in connection with them, in trust for the Buyer;

13.2.2 deal with and dispose of such Sale Shares, dividends, distributions, assets and rights as the Buyer shall direct;

13.2.3 exercise all voting rights attached to such Sale Shares (including for the avoidance of doubt, signing a written resolution of members of the Company) in such manner as the Buyer shall direct; and

13.2.4 if required by the Buyer, execute all instruments of proxy or other documents as may be necessary to enable the Buyer to attend and vote at any meeting of the Company.

14. **Assignment**

14.1 Subject to the further provisions of this clause 16, no party shall assign, transfer, mortgage, charge, declare a trust of, or deal in any other manner with any or all of its rights and obligations under this agreement or any other Transaction Document.

14.2 Subject to clause 14.5, the Buyer may assign or transfer its rights (but not its obligations) under this agreement (or any document referred to in this agreement) to:

14.2.1 another member of its Group for so long as that company remains a member of the Buyer's Group. The Buyer shall procure that such assignee shall comply in full with the terms of this Agreement as if it were the Buyer and that any company assigns any rights assigned to it in accordance with this clause 14 back to the Buyer or to such other member of the Buyer's Group as it may nominate immediately before that company ceases to be a member of the Buyer's Group; or

14.2.2 any person to whom the Sale Shares are sold or transferred by the Buyer following Completion,

PROVIDED always that the amount of loss or damage recoverable from any Sellers by any assignee or other person entitled to the rights under this Agreement pursuant to this clause 14 shall not be greater than the amount of loss or damage which that party would have been able to recover had such assignment or transfer of rights, or any transfer of any of the Sale Shares, or any part of the business, assets or undertaking of the Company, not taken place.

14.3 Subject to clause 14.5, the Buyer may grant security over, or assign by way of security, any or all of its rights under this agreement or any other Transaction Document for the purposes of, or in connection with, the financing (whether in whole or in part) by the Buyer of any of its working capital or other requirements. On the enforcement of any security of a kind referred to in this clause, the Buyer, or any administrative receiver of the Buyer or any person having the benefit of such security may assign any or all of the relevant rights to any person, but the Sellers' liability to any assignee in respect of those rights shall not be greater than if no assignment had taken place.

14.4 If there is an assignment or transfer of the Buyer's rights in accordance with clause 14.2 or clause 14.3:

14.4.1 the Sellers may discharge their obligations under this agreement to the Buyer until they receive notice of the assignment or transfer; and

14.4.2 the assignee or transferee may enforce this agreement as if it were named in this agreement as the Buyer, but the Buyer shall remain liable for any obligations under this agreement.

14.5 During the period in which any Deferred Consideration may become payable the Buyer may not assign any of its rights under this agreement without the prior written consent of the Sellers' Representatives (such consent not to be unreasonably withheld) except to another member of the Buyer's Group.

15. **No agency**

The parties confirm that they are acting on their own behalf in relation to the Transaction and not for the benefit of any other person.

16. **Entire agreement**

This agreement (together with the other Transaction Documents) constitutes the entire agreement between the parties and supersedes and extinguishes all previous discussions, correspondence, negotiations, drafts, agreements, promises, assurances, warranties, representations and understandings between them, whether written or oral, relating to their subject matter.

17. **Variation and waiver**

17.1 No variation of this agreement shall be effective unless it is in writing and signed by the parties (or their authorised representatives). Each of the Sellers hereby appoints the Sellers' Representatives as his authorised representatives for such purposes.

17.2 A waiver of any right or remedy under this agreement or by law is only effective if given in writing and signed by the person waiving such right or remedy. Any such waiver shall apply only to the circumstances for which it is given and shall not be deemed a waiver of any subsequent breach or default.

17.3 A failure or delay by any person to exercise any right or remedy provided under this agreement or by law shall not constitute a waiver of that or any other right or remedy, nor shall it prevent or restrict any further exercise of that or any other right or remedy. No single or partial exercise of any right or remedy provided under this agreement or by law shall prevent or restrict the further exercise of that or any other right or remedy.

17.4 A party that waives a right or remedy provided under this agreement or by law in relation to one party, or takes or fails to take any action against that party, does not affect its rights in relation to any other party.

18. **Sellers' Representatives**

18.1 Subject to Clause 18.4, each Seller irrevocably appoints the Sellers' Representatives (acting unanimously) as his agents:

18.1.1 to negotiate and agree and/or deal with the determination of the Deferred Consideration and the Purchase Price Statement;

18.1.2 to negotiate, compromise, agree and settle any dispute with the Buyer on his behalf; and

18.1.3 to take all actions and exercise all rights in relation to the Retention; and

18.1.4 without prejudice to clauses 18.1.1 to 18.1.3, to act on his behalf in relation to any matter which this agreement expressly provides to be agreed or done by the Sellers' Representatives.

18.2 Without prejudice to clause 18.1, each Seller irrevocably agrees that any notice, consent or agreement, election, demand or other action to be given, made or taken by such Seller (whether individually or with others) under or in connection with this agreement (including any amendment or variation of the terms of this agreement), may be given, made or taken on his behalf by the Sellers' Representatives provided that the Sellers' Representatives shall not have authority under this clause 18.2 to agree to any amendment to this agreement on behalf of a Seller unless (i) the amendment is immaterial or (ii) the amendment has been approved by a Seller Majority.

18.3 Each Seller irrevocably:

18.3.1 (subject to clause 18.4) undertakes to the Buyer that the Sellers' Representatives have and shall retain the authority to bind him in relation to the matters referred to in Clauses 18.1 and 18.2 (Relevant Matters);

18.3.2 agrees that the Buyer shall be entitled to rely on any motive or communication in writing provided by the Sellers' Representatives in relation to any Relevant Matter as binding on him; and

18.3.3 agrees that any notice or communication in writing by the Sellers' Representatives to the Buyer in relation to any Relevant Matter shall be deemed (unless the context requires otherwise) to be provided by the Sellers' Representatives as agent for all of the Sellers.

18.4 If, for any reason, a Sellers' Representative resigns (by notice in writing served on the Sellers and the Buyer) or ceases to be able to act for the purposes of this Clause 18 or no longer has a postal address in the United Kingdom, the Sellers shall immediately:

18.4.1 (subject to this Clause 18.4.1) irrevocably appoint a substitute Sellers' Representative with a postal address in the United Kingdom; and

18.4.2 notify the Buyer of the name, relevant contact (where appropriate) and postal and email addresses of the substitute Sellers' Representative.

18.5 Such appointment and notice shall be effective on the fifth Business Day after the date on which the notice given pursuant to clause 18.4.2 is deemed to have been served or delivered in accordance with clause 20.

18.6 If, on any occasion, there are no Sellers' Representatives:

18.6.1 the Buyer shall be entitled to deal with a Seller Majority instead;

18.6.2 (except in this clause 18), references in this agreement to the Sellers' Representatives shall be construed accordingly; and

18.6.3 for the purposes of clause 20, the relevant contact (where appropriate) and postal addresses of the Sellers shall be as set out in Schedule 1.

18.7 The Sellers shall be entitled (acting by a Seller Majority) to appoint any other Seller(s) to act as a replacement in place of the Sellers' Representatives named in this agreement provided that no such appointment will take effect unless notice of the proposed appointment, setting out the full name and contact details of the new representative(s) signed by the Seller Majority, is given to the Buyer and the Sellers receive the Buyer's consent (which consent shall not be unreasonably withheld and shall be deemed to be given if a response is not received from the Buyer within 10 Business Days of notice of the intended new Sellers' Representative(s) being given to the Buyer).

18.8 Where any Relevant Matter is an Individual Dispute, then the relevant Seller shall be entitled to be served notice directly of any such Individual Dispute and shall be entitled to deal with the conduct of the Individual Dispute himself provided that (a) that Seller shall nominate and maintain a person (who may be the Seller himself) with an address in England & Wales with authority to accept service on his behalf of Notices and process in any legal action or proceedings before the courts of England and Wales relating to or in connection with any such Individual Dispute and (b) such notice shall set out the address and other contact details of such nominated person. The Seller shall be entitled by notice to the Buyer to nominate a replacement of any such nominated person provided the replacement also has an address in

England & Wales. So long as any such person has been appointed in accordance with this clause 18.8, the Sellers' Representatives shall not have any authority to deal with any Individual Dispute and, pending or in the absence of any such appointment, shall act in accordance with the instructions of the relevant Seller in relation thereto.

19. **Costs**

19.1 Except as expressly provided in this agreement, each party shall pay its own costs and expenses incurred in connection with the negotiation, preparation and execution of this agreement (and any other Transaction Documents).

19.2 Each Seller agrees to the deduction from his entitlement to the Completion Payment of his Respective Proportion of the Deal Fees and the Insurance Premium Contribution.

19.3 Each PropCo Seller agrees to the deduction from his entitlement to the Completion Payment of a sum equal to the par value of the shares which he holds in PropCo, which such sum shall be paid over to PropCo to satisfy the subscription monies due on such shares.

20. **Notices**

20.1 For the purposes of this clause 20.1, but subject to clause 20.8, notice includes any other communication.

20.2 A notice given to a party under or in connection with this agreement:

20.2.1 shall be in writing and in English;

20.2.2 shall be signed by or on behalf of the party giving it;

20.2.3 shall be sent to the relevant party for the attention of the named contact and to the address specified in Schedule 1 or clause 20.4.2 (as the case may be), or such other named contact or address as that party may notify to the others in accordance with the provisions of this clause 20; and

20.2.4 shall be:

20.2.4.1 delivered by hand;

20.2.4.2 sent by pre-paid first class post or another next working day delivery service providing proof of postage; or

20.2.4.3 sent by airmail or by reputable international overnight courier (if the notice is to be served by post to an address outside the country from which it is sent).

20.3 Any notice to be given under this agreement to or by:

20.3.1 all of the Sellers, shall be deemed to have been properly given if it is given to or by (as the case may be) the Sellers' Representatives; or

20.3.2 some of the Sellers only, shall be given to or by (as the case may be) the relevant Seller and, in the case of a notice given to a Seller, to his address as set out in Schedule 1.

20.4 The addresses for service of notices on the Buyer, the Sellers' Representatives and New Wave Ventures LLP are:

20.4.1 Buyer

20.4.1.1 address: 136a Eastern Avenue, Milton Park, Abingdon, Oxfordshire OX14 4SB

20.4.1.2 for the attention of: The Company Secretary

with a copy for information only to Druces LLP (For the attention of D. Smith), Salisbury House, London Wall, London EC2M 5PS, email [**]

20.4.2 Sellers' Representatives at the addresses set out against their respective names as set out in Schedule 1.

20.4.3 New Wave Ventures LLP

20.4.3.1 address: Eighth Floor, 6 New Street Square, London EC4A 3AQ

20.4.3.2 for the attention of: Tim Bullock

With a copy by email to [**]

20.5 A party may change its details for service of notices as specified in clause 20.4 or Schedule 1 (as the case may be) by giving notice to each of the other parties, provided that in the case of a change to the party's postal address for service the new address is an address in the UK. Any notice of a change to the identity of the Sellers' Representatives must be signed by or on behalf of a Seller Majority to be effective. Any change notified pursuant to this clause shall take effect at 9.00 am on the later of:

20.5.1 the date, if any, specified in the notice as the effective date for the change; and

20.5.2 five Business Days after deemed receipt of the notice of change.

20.6 Delivery of a notice is deemed to have taken place (provided that all other requirements in this clause have been satisfied):

20.6.1 if delivered by hand at the time the notice is left at the address;

20.6.2 if sent by pre-paid first class post or another next working day delivery service providing proof of postage to an address in the UK, at 9.00 am on the second Business Day after posting;

20.6.3 if sent by pre-paid airmail to an address outside the country from which it is sent, at 9.00 am on the fifth Business Day after posting;

20.6.4 if sent by reputable international overnight courier to an address outside the country from which it is sent, on signature of a delivery receipt; or

20.6.5 if deemed receipt under the previous paragraphs of this clause 20.6 would occur outside business hours (meaning 9.00 am to 5.30 pm Monday to Friday on a day that is not a public holiday in the place of deemed receipt), at 9.00 am on the day when business next starts in the place of deemed receipt. For the purposes of this clause, all references to time are to local time in the place of deemed receipt.

20.7 To prove service, it is sufficient to prove that:

20.7.1 if delivered by hand or by reputable international overnight courier, the notice was delivered to the correct address;

20.7.2 if sent by post or by airmail, the envelope containing the notice was properly addressed, paid for and posted.

20.8 This clause 20 does not apply to the service of any proceedings or other documents in any legal action or, where applicable, any arbitration or other method of dispute resolution.

21. **Joint obligations**

21.1 Unless expressly provided otherwise, the Sellers shall severally liable for their obligations, undertakings and liabilities under this agreement. For the avoidance of doubt the liability of the Sellers for their obligations under clause 7, clause 11, clause 12, and clause 13.2 shall be several and extend only to any loss or damage arising out of their own breaches.

21.2 The Buyer may take action against, grant time or other indulgence to, or release or compromise in whole or part the liability of, any one or more of the Sellers in respect of any warranty, indemnity, representation or other obligation under this agreement without affecting the liability of any of the other Sellers who are liable (whether jointly and severally or otherwise) in respect of that warranty, indemnity, representation or other obligation.

22. Interest

22.1 Subject to clause 23.3 if a party fails to make any payment due to any other party under this agreement by the due date then the defaulting party shall pay interest on the overdue sum from the due date until payment of the overdue sum, whether before or after judgment.

22.2 Interest under this clause will accrue each day at [**]% a year above the Bank of England's base rate from time to time, but at [**]% a year for any period when that base rate is below [**] %.

22.3 In relation to payments disputed in good faith, interest under this clause is payable only after the dispute is resolved, on sums found or agreed to be due, from [**] Business Days after the dispute is resolved until payment.

23. Severance

If any provision or part-provision of this agreement is or becomes invalid, illegal or unenforceable, it shall be deemed modified to the minimum extent necessary to make it valid, legal and enforceable. If such modification is not possible, the relevant provision or part-provision shall be deemed deleted. Any modification to or deletion of a provision or part-provision under this clause shall not affect the validity and enforceability of the rest of this agreement.

24. Agreement survives Completion

This agreement (other than obligations that have already been fully performed) remains in full force after Completion.

25. Third party rights

25.1 Except as expressly provided in clause 25.2, this agreement does not give rise to any rights under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this agreement.

25.2 The following provisions are intended to benefit future buyers of the Sale Shares and (to the extent that they are identified in the relevant clauses as recipients of rights or benefits under that clause), the Company, and the Officers (as defined in clause 7.7), and shall be enforceable by each of them to the fullest extent permitted by law:

25.2.1 Clause 7 and Schedule 6 (Warranties) (subject to clause 8 (Limitations on claims));

25.2.2 Clause 10 and Schedule 7 (Tax Covenant);

25.2.3 Clause 11 (Restrictions on the Sellers);

25.2.4 Clause 12 (Confidentiality and announcements); and

25.2.5 Clause 22 (Interest).

25.3 The rights of the parties to rescind or vary this agreement are not subject to the consent of any other person.

26. **Counterparts**

26.1 This agreement may be executed in any number of counterparts, each of which when executed and delivered shall constitute a duplicate original, but all the counterparts shall together constitute the one agreement.

26.2 Transmission of an executed counterpart of this agreement (but for the avoidance of doubt not just a signature page) by email (in PDF, JPEG or other agreed format) shall take effect as delivery of an executed counterpart of this agreement. If this method of delivery is adopted, without prejudice to the validity of the agreement thus made, each party shall provide the others with the "wet-ink" original of such counterpart as soon as reasonably possible thereafter.

26.3 No counterpart shall be effective until each party has executed and delivered at least one counterpart.

27. **Rights and remedies**

Except as expressly provided in this agreement, the rights and remedies provided under this agreement are in addition to, and not exclusive of, any rights or remedies provided by law.

28. **Inadequacy of damages**

Without prejudice to any other rights or remedies that the Buyer may have, the Sellers acknowledge and agree that damages alone would not be an adequate remedy for any breach of the terms of clause 11 or clause 12 by a Seller. Accordingly, the Buyer shall be entitled to the remedies of injunction, specific performance or other equitable relief for any threatened or actual breach of the terms of clause 11or clause 12 of this agreement.

29. **Governing law and jurisdiction**

29.1 This agreement and any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with it or its subject matter or formation shall be governed by and construed in accordance with the law of England.

29.2 Each party irrevocably agrees that the courts of England and Wales shall have exclusive jurisdiction to settle any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with this agreement or its subject matter or formation.

This agreement has been entered into on the date stated at the beginning of it.

Signed by DAVID HUGH WILLIAMS /s/ DAVID HUGH WILLIAMS

Signed by JOHN RICHARD WAIN /s/ JOHN RICHARD WAIN

Signed by ERNESTO GIORGIO REGGIANI /s/ ERNESTO GIORGIO REGGIANI

Signed by KEITH TURNER /s/ KEITH TURNER

Signed by NAWAZ KHAN /s/ NAWAZ KHAN

Signed by CLIVE MASON /s/ CLIVE MASON

Signed by DUNCAN MASKILL /s/ DUNCAN MASKILL

Signed by IAN MICHAEL RIORDEN GEORGE

/s/ IAN MICHAEL RIORDEN GEORGE

Signed by TIM AVIS

/s/ TIM AVIS

Signed by PAUL MEO

/s/ PAUL MEO

Signed by SIHONG CHEN

/s/ SIHONG CHEN

Signed by CHRISTOPHER COWARD

/s/ CHRISTOPHER COWARD

Signed by ELENA BREDEINSTEIN

/s/ ELENA BREDEINSTEIN

Signed by ASHLEY POULTER

/s/ ASHLEY POULTER

Signed by DENITSA DIMITROVA	/s/ DENITSA DIMITROVA
Signed by SARAH FORDHAM	/s/ SARAH FORDHAM
Signed by CEDRIC CHARRIER	/s/ CEDRIC CHARRIER
Signed by OLUSEGUN OSHOTA	/s/ OLUSEGUN OSHOTA
Signed by JENNIFER ROBERTS	/s/ JENNIFER ROBERTS
Signed by NEW WAVE VENTURES LLP acting by a member Signed by MELISSA STRANGE for and on behalf of SUMMIT THERAPEUTICS	/s/ NEW WAVE VENTURES LLP Member /s/ MELISSA STRANGE Company Secretary

Exhibit 4.29

Confidential Materials omitted and filed separately with the
Securities and Exchange Commission. Double asterisks denote omissions.

Dated 23rd December 2017

The Management Team

and

Discuva Limited

TRANSFER INCENTIVE AGREEMENT

Taylor Vinters

Merlin Place, Milton Road, Cambridge, CB4 0DP

THIS DEED is dated 23rd December 2017

PARTIES

1 The several persons whose names and addresses are set out in the Schedule (the "**Management Team**"); and

2 **Discuva Limited** a company registered in England and Wales with company number 06169490 and whose registered office is at The Merrifield Centre, Rosemary Lane, Cambridge, CB1 3LQ (the "**Company**")

BACKGROUND

The Management Team have all provided support to the development of the Relevant Products of the Company and in recognition of this the Company has agreed to pay a transfer incentive payment to the Management Team in the event that the Relevant Products achieve certain milestones in their development and subject to the terms of this agreement.

1 DEFINITIONS AND INTERPRETATION

1.1 In this agreement the following words and phrases have the following meanings:

"**Business**" shall have the meaning given to it in the Share Purchase Agreement;

"**Business Day**" means a day other than a Saturday, Sunday or public holiday in England;

"**Clinical Trial**" means a clinical trial as defined in Directive 2001/20/EC, and, when in force, Regulation (EU) 536/2014 or its equivalent in any one or more of the countries within the Territory;

"**Consultant**" means any of David Williams, John Wain and Ernesto Reggiani;

"**Employee**" means either of Clive Mason and Nawaz Khan;

"Deferred Consideration" has the meaning given in the Share Purchase Agreement;

"**FDA**" means the United States Food and Drug Administration or any successor agency thereto;

"**Group**" means in relation to the company, that company, any subsidiary undertaking or any parent undertaking from time to time of that company, and any subsidiary undertaking from time to time of a parent undertaking of that company. Each company in a Group is a member of the Group;

"**HMRC**" means HM Revenue and Customs;

"**Investigational New Drug Application**" means a request for FDA authorisation to administer an investigational drug to humans;

"**Milestone A Event**" means [**];

"**Milestone A Payment**" means the sum of £[**];

"**Milestone B Event**" means the [**];

"**Milestone B Payment**" means the sum of £[**];

"**Milestones**" means Milestone A Events and Milestone B Events;

"**Milestone Payment(s)**" means Milestone A Payments and Milestone B Payments;

"**Phase I Trial**" means, wherever in the world conducted, a Clinical Trial in humans of a pharmaceutical product, the principal purpose of which is preliminary determination of safety in healthy volunteers or patients;

"**Phase II Trial**" means, wherever in the world conducted, a Clinical Trial in humans of the short-term side effects and risks associated with a pharmaceutical product and its efficacy for an indication under investigation in such Clinical Trial, whether controlled or not;

"**Regulatory Authority**" means any regulatory authority or competent body in any jurisdiction as relevant to the Relevant Product and/or the approval, registration and sale thereof;

"**Relevant Products**" means any products identified using the Company's SATIN platform whether or not the rights or development of such product is licenced out or the product is transferred, sold or otherwise disposed of to any member of the Company's Group or any third party including any Reversionary Roche Products but not including Roche Products and **Relevant Product** means any one of them;

"**Reversionary Roche Products**" means any products identified using the Company's SATIN platform and which if advanced under the terms of the Roche JV Agreement (as defined in the Share Purchase Agreement) would have attracted a Roche Payment (as defined in the Share Purchase Agreement) to be paid to the Company under the terms of the Share Purchase Agreement but for the fact that the product has reverted back into the ownership of the Company and has been further advanced by the Company;

"**Roche Products**" means any products which identified using the Company's SATIN platform which if advanced under the terms of the Roche JV Agreement (as defined in the Share Purchase Agreement) would attract a Roche Payment (as defined in the Share Purchase Agreement) under the terms of the Share Purchase Agreement but for the avoidance of doubt not including Reversionary Roche Products;

"**SATIN platform**" means the Company's proprietary platform which comprises of several different varieties of transposon library which have been specifically engineered for each target pathogen, coupled with high-throughput Next Generation Sequencing technology, advanced bioinformatics and machine learning, providing an ongoing genome-wide analysis of bacterial events throughout the chemistry optimisation process as at the Completion Date (as defined in the Share Purchase Agreement);

"**Sellers**" has the meaning given in the Share Purchase Agreement;

"**Share Purchase Agreement**" means the share purchase agreement to purchase the entire issued share capital of the Company between David Williams and Others (1) and Summit Therapeutics plc (2) dated on or around the date of this agreement;

"**Territory**" means worldwide;

"**Transfer Incentives**" means all the Transfer Incentive Payments to be paid to the Management Team in accordance with the terms of this agreement; and

"**Transfer Incentive Payments**" means the Milestone A Payments and the Milestone B Payments to be made under the terms of this agreement.

1.2 Clause, Schedule and paragraph headings shall not affect the interpretation of this agreement.

1.3 A person includes a natural person, corporate or unincorporated body (whether or not having separate legal personality).

1.4 The Schedule forms part of this agreement and shall have effect as if set out in full in the body of this agreement. Any reference to this agreement includes the Schedule.

1.5 A reference to a holding company or a subsidiary means a holding company or a subsidiary (as the case may be) as defined in section 1159 of the Companies Act 2006.

1.6 Unless the context otherwise requires, words in the singular shall include the plural and in the plural shall include the singular.

1.7 Unless the context otherwise requires, a reference to one gender shall include a reference to the other genders.

1.8 This agreement shall be binding on, and enure to the benefit of, the parties to this agreement and their respective personal representatives, successors and permitted assigns, and references to any party shall include that party's personal representatives, successors and permitted assigns.

1.9 A reference to a statute or statutory provision is a reference to it as it is in force as at the date of this agreement.

1.10 A reference to a statute or statutory provision shall include all subordinate legislation made as at the date of this agreement under that statute or statutory provision.

1.11 A reference to writing or written includes neither fax nor email.

1.12 References to clauses and Schedules are to the clauses and Schedules of this agreement and references to paragraphs are to paragraphs of the relevant Schedule.

2 BASIS OF THE AGREEMENT

2.1 The Company has agreed that the Management Team shall be paid the Transfer Incentives, subject to and on the terms of this agreement.

2.2 Subject to clause 2.3:

2.2.1 on each of the first [**] occasions on which a Relevant Product achieves Milestone A Event (being a different product and trial for each event), a Milestone A Payment shall be paid to the Management Team in accordance with clause 4 apportioned between them in the sums set out in the Schedule; and

2.2.2 on each of the first [**] occasions on which a Relevant Product achieves Milestone B Event (being a different product for each event and a different Phase II Trial for each event), a Milestone B Payment shall be paid to the Management Team in accordance with clause 4 apportioned between them in the amounts set out in the Schedule.

2.3 The maximum aggregate value of all Transfer Incentive Payments payable under this agreement shall be capped at £7,908,611.60 and once such sum has been paid in accordance with clause 4 the Management Team shall have no further rights or entitlement under this agreement.

2.4 Subject to clause 2.5, the Company shall only be responsible to pay a maximum of [**] Milestone A Payments for all Milestone A Events achieved, whether or not such Milestone A Event is achieved with respect to further products or Clinical Trials. Further, Company shall only be responsible to pay a maximum of [**] Milestone B Payments for all Milestone B Events achieved, whether or not such Milestone B Event is achieved with respect to further products or Clinical Trials. For clarity Milestone A Events and Milestone B Events are not interdependent or connected, by way of example in the event that a Milestone B Event has been achieved without all Milestone A Events having been achieved, the Milestone A Payments which were not achieved shall not become automatically due and payable as a consequence.

2.5 Notwithstanding anything else in this agreement, the parties acknowledge and agree that in relation to Reversionary Roche Products certain Milestones may (but for this sub clause 2.5) trigger payments under this agreement and payments of Deferred Consideration to the Sellers under the Share Purchase Agreement. In such circumstance the parties acknowledge and agree that payments under the Share Purchase Agreement shall be due first. The parties further agree that where the Sellers have been paid in accordance with Schedule 5 of the Share Purchase Agreement in respect of a product which subsequently becomes a Reversionary Roche Product, an amount equal to such payment shall be subtracted from any Milestone Payment in respect of the Reversionary Roche Product which becomes due hereunder. The subtracted amount shall be payable upon achievement of Milestone Event(s) by the fourth (4th) or subsequent Reversionary Roche Product .

3 MANAGEMENT TEAM PROTECTIONS

3.1 For the purposes of protecting the Transfer Incentives the Company undertakes to the Management Team, subject always to clause 3.2 hereof, that:

3.1.1 the business and affairs of the Company shall be supported, operated and managed in accordance with bona fide commercial principles insofar as the interests of the Company are concerned, including, but not limited to, the fulfilment of obligations of the Company under this agreement;

3.1.2 no act or omission on the part of the Company shall take place where such act or omission is intended to and has the aim of reducing the Transfer Incentives;

3.1.3 it shall not divert or redirect any trading, business opportunities or revenues in a way that has the aim of reducing the Transfer Incentives;

3.1.4 no material change shall be made to the scope or nature of the business of the Company or the manner in which the Business is carried on where such act or omission is intended to have the effect of reducing the Transfer Incentives; and

3.1.5 no resolution to wind up the Company will be passed or proposed (save in circumstances of insolvency).

3.2 Notwithstanding the provisions of clause 3.1 above, the Company shall at all times remain free to act, or omit to act, in the manner in which its directors, acting in good faith, consider to be in the best interests of the Company, having given due consideration to all relevant factors including where appropriate its obligations under this agreement.

3.3 The Management Team may by written request to the Company on reasonable notice (but not more than [**]) request the Company to supply any information the Management Team may reasonably require to verify that the Company has complied with paragraph 3.1. Upon such request the Company shall use its reasonable endeavours to provide such information within [**] Business Days of the request, failing that the Management Team and their professional advisors shall be entitled during normal business hours and at a time agreed with the Company (acting reasonably) to inspect the relevant books and records of the Company (and any relevant member of the Company's *Group*) and to take copies of them (provided always that the Management Team shall keep confidential any information so disclosed and may only use such information for the purposes of protecting and enforcing the rights of the Management Team pursuant to this Agreement).

3.4 Within [**] days of the end of each financial year the Company shall deliver to the Management Team a certificate signed by an officer of the Company confirming the Transfer Incentive Payments paid in such financial year (together with the cumulative aggregate of Transfer Incentive Payments paid since the date of this agreement), any Transfer Incentive Payments expected in the forthcoming financial year and whether the Company has complied with the obligations set out in paragraph 3.1 above. The Management Team shall be entitled to submit questions or requests for clarification within [**] Business Days of the delivery of such report, which the Company shall, so far as reasonable, respond to within [**] Business Days of receipt. It is recognised that matters relevant to such certificate and questions may be commercially sensitive and the Company shall be entitled to redact or exclude names or figures, provided that it shall use its reasonable endeavours to submit a report that permits the Management Team to make an assessment on the performance of the Relevant Products and the Transfer Incentive Payments likely to be paid.

4 PAYMENT AND TAX TREATMENT

4.1 Any Transfer Incentive Payment due shall be paid by the Company on the next normal payroll date of the Company not less than [**] days following the date on which such Transfer Incentive Payment becomes due pursuant to clause 2.2.

4.2 Any Transfer Incentive Payment payable to an Employee shall (for so long as each such person remains an employee of the Company) be paid through the Company's payroll and shall be paid net of all relevant deductions for PAYE and employee national insurance contributions.

4.3 Any Transfer Incentive Payment payable to a Consultant (or any Employee who shall subsequently cease to be an employee of the Company) shall be paid in accordance with the legislation applicable at the time, the Company having at that time taken advice from suitably qualified tax advisers as to its obligations to retain any monies and account for such retention to the relevant tax authorities (a copy of which such advice the Consultant or Employee (as the case may be) shall be entitled to see and, to the extent it contains incorrect information about his positon, make comments which the Company shall have reasonable regard to in making its determination). Subject to such retention, and to the extent that the payment is made gross, the Consultant (or any Employee who has ceased to be an employee of the Company, as the case may be) shall be solely responsible for the payment to HMRC of any tax, national insurance contributions or other taxes arising from payment of the Transfer Incentive Payments and shall indemnify the Company in respect of any claims by HMRC against the Company in respect of demands for tax and national insurance contributions relating to the relevant Transfer Incentive Payment.

5 NOTICES

5.1 Any notice or other communication given to a party under or in connection with this agreement shall be in writing and shall be delivered by hand or by pre-paid first-class post or other next working day delivery service at its registered office (in the case of the Company) or the address set out next to their respective names in the Schedule (in the case of the Management Team) or to such other address as is otherwise notified in writing to the other parties.

5.2 Any notice or communication shall be deemed to have been received:

5.2.1 if delivered by hand or at the time the notice is left at the proper address; and

5.2.2 if sent by pre-paid first-class post or other next working day delivery service, at 9.00 am on the second Business Day after posting or at the time recorded by the delivery service.

5.3 This clause does not apply to the service of any proceedings or other documents in any legal action or, where applicable, any arbitration or other method of dispute resolution.

5.4 A notice given under this agreement is not valid if sent by email.

6 GENERAL

6.1 The agreement comprises the entire agreement and understanding between the Company and the Management Team in relation to its subject matter and is in substitution for and supersedes all previous agreements or arrangements, understandings or correspondence between the Company and the Management Team relating to this or similar subject matter.

6.2 The agreement shall be binding on each party's successors, permitted assigns and personal representatives (as the case may be).

6.3 No failure or delay by a party to exercise any right or remedy provided under this agreement or by law shall constitute a waiver of that or any other right or remedy, nor shall it prevent or restrict the further exercise of that or any other right or remedy. No single or partial exercise of such right or remedy shall prevent or restrict the further exercise of that or any other right or remedy.

6.4 No variation of this agreement shall be effective unless it is in writing and signed by the parties.

6.5 This agreement may be executed in any number of counterparts, each of which when executed and delivered shall constitute a duplicate original, but all the counterparts shall together constitute the one agreement.

6.6 Unless it expressly states otherwise, this agreement does not give rise to any rights under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this agreement.

6.7 This agreement and any disputes arising out of or in connection with its subject matter or formation (including non-contractual disputes and claims) shall be governed by and construed in accordance with the laws of England and the parties hereby submit to the exclusive jurisdiction of the courts of England and Wales.

IN WITNESS WHEREOF this agreement has been executed and delivered as a deed on the date stated at the beginning of it.

EXECUTED AS A DEED by:) /s/ John Wain
DISCUVA LIMITED)
)
acting by one director .....

In the presence of:
Witness signature: /s/ Jenny Laguoa
Witness name: Jenny Laguoa
Witness address: Taylor Vitners Solicitors
Merlin Place, Milton Road
Cambridge CB4 0DP

Witness occupation: Trainee Solicitor

EXECUTED AS A DEED by:) /s/ David Williams
DAVID WILLIAMS)
In the presence of:) .....

Witness signature: /s/ Jenny Laguoa
Witness name: Jenny Laguoa
Witness address: Taylor Vitners Solicitors
Merlin Place, Milton Road
Cambridge CB4 0DP

Witness occupation: Trainee Solicitor

EXECUTED AS A DEED by:) /s/ John Wain
JOHN WAIN)
In the presence of:) .....

Witness signature: /s/ Jenny Laguoa
Witness name: Jenny Laguoa
Witness address: Taylor Vitners Solicitors
Merlin Place, Milton Road
Cambridge CB4 0DP

Witness occupation: Trainee Solicitor

EXECUTED AS A DEED by:) /s/ Clive Mason
CLIVE MASON)
In the presence of:)

Witness signature: /s/ Jenny Laguoa
Witness name: Jenny Laguoa
Witness address: Taylor Vitners Solicitors
Merlin Place, Milton Road
Cambridge CB4 0DP

Witness occupation: Trainee Solicitor

EXECUTED AS A DEED by:) /s/ Nawaz Khan
NAWAZ KHAN)
In the presence of:)

Witness signature: /s/ Jenny Laguoa
Witness name: Jenny Laguoa
Witness address: Taylor Vitners Solicitors
Merlin Place, Milton Road
Cambridge CB4 0DP

Witness occupation: Trainee Solicitor

EXECUTED AS A DEED by:) /s/ Ernesto Reggiani
ERNESTO REGGIANI)
In the presence of:)

Witness signature: /s/ Jenny Laguoa
Witness name: Jenny Laguoa
Witness address: Taylor Vitners Solicitors
Merlin Place, Milton Road
Cambridge CB4 0DP

Witness occupation: Trainee Solicitor

SCHEDULE

Name	Address	Part of Milestone A Payments	Part of Milestone B Payments
David Williams	[**]	[**]	[**]
John Wain	[**]	[**]	[**]
Clive Mason	[**]	[**]	[**]
Nawaz Khan	[**]	[**]	[**]
Ernesto Reggiani	[**]	[**]	[**]

Exhibit 4.30

Confidential Materials omitted and filed separately with the
Securities and Exchange Commission. Double asterisks denote omissions.

DATED 20 September 2017

(1) THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD

- and -

(2) SUMMIT THERAPEUTICS PLC

- and –

(3) OXFORD UNIVERSITY INNOVATION LIMITED

THIRD VARIATION AGREEMENT

relating to the Agreement for the Sponsorship of a Research Programme for the development of small molecule modulators of utrophin for the treatment of Duchenne Muscular Dystrophy dated 22 November 2013

THIS AGREEMENT (the **"Third Variation Agreement"**) is dated ___20 September____ 2017 (the "**Variation Date**")

BETWEEN:-

(1) **THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD**, whose administrative office is at University Offices, Wellington Square, Oxford, OX1 2JD (the "**University**"); and

(2) **SUMMIT THERAPEUTICS PLC**, a public limited company incorporated in England and Wales with company number 05197494 whose address is 85b Park Drive, Milton Park, Abingdon, Oxfordshire, OX14 4RY (the "**Sponsor**"); and

(3) **OXFORD UNIVERSITY INNOVATION LIMITED,** a private limited company incorporated in England and Wales with company number 02199542, whose registered office is at University Offices, Wellington Square, Oxford, OX1 2JD ("**OUI**"),

each a "**Party**" and together the "**Parties**".

RECITALS

(A) The Parties entered into an agreement for the sponsorship of a research programme relating to the development of small molecule modulators of utrophin for the treatment of Duchenne Muscular Dystrophy dated 22 November 2013 (the "**Agreement**").

(B) The Agreement was amended by way of a variation dated 16 July 2014 (the "**Variation Agreement**").

(C) The Agreement was further amended by way of a variation dated 16 November 2015 (the "**Second Variation Agreement**").

(D) On 16 June 2016, Isis Innovation Limited changed its name to Oxford University Innovation Limited.

(E) The Parties now wish to increase the level of research support and funding by: (i) £[**] to allow the University to employ [**]; (ii) £[**] to provide for the reimbursement of equipment to the University; and (iii) £[**] to allow an [**] to be employed for [**].

NOW IT IS AGREED AS FOLLOWS:

1. **DEFINITIONS AND INTERPRETATIONS**

1.1 The terms defined in the Agreement shall have the same meanings when used in this Third Variation Agreement unless specifically indicated otherwise.

1.2 A reference to this Third Variation Agreement shall include any Schedules.

1.3 The words "**include**", "**including**", or "**in particular**" are deemed to have the words "without limitation" following them.

2. **VARIATION**

2.1 With effect from the Variation Date of this Third Variation Agreement, the Parties agree the following amendments to the Agreement:

The text of Schedule 3 of the Agreement is amended as follows, where deletions are shown in struck through text and additions are shown in underlined text:

Date for Payment by the Sponsor	**Amount (excluding VAT): £sterling**
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
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[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
TOTAL PAYABLE	~~£4,333,132~~ £4,630,524.06

The sums payable by the Sponsor between the [**] of the Agreement and [**] of the Agreement, inclusive, are to be used to fund a minimum of [**]. A minimum of [**] and a minimum of [**].

The Parties agree that the sum payable by the Sponsor on [**] shall include a sum of £[**], and sums payable on each of [**] shall each include an amount of £[**] to fund the employment of [**]. Should [**] cease to be engaged on the Project earlier than [**], the University shall promptly notify the Sponsor and payments on the relevant above-mentioned dates shall be reduced accordingly. Additionally: (i) sums payable in [**] shall include amounts of £[**] in respect of reimbursement of the University for equipment costs; and (ii) sums payable in [**] shall each include an amount of £[**] to fund the employment of an [**]. For the avoidance of doubt, payments in [**] shall be £[**] respectively.

It is noted that the £[**] is not included in the above figures.

Should the Extension Option be exercised so that the Project Period is extended to 22 November 2020, then the following sums will also become payable:

Date for Payment by the Sponsor	**Amount (excluding VAT): £ sterling**
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
TOTAL PAYABLE UNDER THE EXTENSION OPTION	830,000

3. **GOVERNING LAW AND JURISDICTION**

3.1 This Third Variation Agreement and any dispute or claim arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims) shall be governed by and construed in accordance with the law of England and Wales.

3.2 The Parties irrevocably agree that the courts of England and Wales have exclusive jurisdiction to settle any dispute or claim arising out of in connection with this Third Variation Agreement or its subject matter or its formation (including non-contractual disputes or claims).

IN WITNESS of this Agreement, the Parties have executed this Agreement through their duly authorised representatives.

SIGNED for and on behalf of **THE CHANCELLOR MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD**:-) /s/ Dr. Dan Blakey

Name: Dr. Dan Blakey

Title: Deputy Head of Research Services (Science Area) University of Oxford

Date: 14 Sept 2017

SIGNED for and on behalf of **SUMMIT THERAPEUTICS PLC**:-) /s/ Glyn Edwards

Name: Glyn Edwards

Title: Chief Executive Officer

Date: 20 Sept 2017

SIGNED for and on behalf of **OXFORD UNIVERSITY INNOVATION LIMITED** :-) /s/ Dr. Adam Stoten

Name: Dr. Adam Stoten

Title: Chief Operating Officer

Date: 15 Sept 2017

Dated: 22 December 2017

MERRIFIELD CENTRE LTD

and

DISCUVA LIMITED

LEASE

relating to

part of The Merrifield Centre, Rosemary Lane, Cambridge, CB1 3LQ

Taylor Vinters

Merlin Place, Milton Road, Cambridge CB4 0DP

TABLE OF CONTENTS

THIS LEASE is dated 22 December 2017

PARTIES

1 **MERRIFIELD CENTRE LTD** incorporated and registered in England and Wales with company number 11118349 whose registered office is at The Merrifield Centre, Rosemary Lane, Cambridge, United Kingdom, CB1 3LQ (the "**Landlord**"); and

2 **DISCUVA LIMITED** incorporated and registered in England and Wales with company number 06169490 whose registered office is at The Merrifield Centre, Rosemary Lane, Cambridge, CB1 3LQ (the "**Tenant**").

AGREED TERMS

1 INTERPRETATION

The following definitions and rules of interpretation apply in this lease.

1.1 Definitions:

1.1.1 "**Act of Insolvency**" means

1.1.1.1 the taking of any step in connection with any voluntary arrangement or any other compromise or arrangement for the benefit of any creditors of the Tenant or any guarantor;

1.1.1.2 the making of an application for an administration order or the making of an administration order in relation to the Tenant or any guarantor;

1.1.1.3 the giving of any notice of intention to appoint an administrator, or the filing at court of the prescribed documents in connection with the appointment of an administrator, or the appointment of an administrator, in any case in relation to the Tenant or any guarantor;

1.1.1.4 the appointment of a receiver or manager or an administrative receiver in relation to any property or income of the Tenant or any guarantor;

1.1.1.5 the commencement of a voluntary winding-up in respect of the Tenant or any guarantor, except a winding-up for the purpose of amalgamation or reconstruction of a solvent company in respect of which a statutory declaration of solvency has been filed with the Registrar of Companies;

1.1.1.6 the making of a petition for a winding-up order or a winding-up order in respect of the Tenant or any guarantor;

1.1.1.7 the striking-off of the Tenant or any guarantor from the Register of Companies or the making of an application for the Tenant or any guarantor to be struck-off;

1.1.1.8 the Tenant or any guarantor otherwise ceasing to exist (but excluding where the Tenant or any guarantor dies);

1.1.1.9 the making of an application for a bankruptcy order, the presentation of a petition for a bankruptcy order or the making of a bankruptcy order against the Tenant or any guarantor; or

1.1.1.10 the levying of any execution or other such process on or against, or taking control or possession of, the whole or any part of the Tenant's assets.

The paragraphs above shall apply in relation to a partnership or limited partnership (as defined in the Partnership Act 1890 and the Limited Partnerships Act 1907 respectively) subject to the modifications referred to in the Insolvent Partnerships Order 1994 (*SI 1994/2421*) (as amended), and a limited liability partnership (as defined in the Limited Liability Partnerships Act 2000) subject to the modifications referred to in the Limited Liability Partnerships Regulations 2001 (*SI 2001/1090*) (as amended).

Act of Insolvency includes any analogous proceedings or events that may be taken pursuant to the legislation of another jurisdiction in relation to a tenant or guarantor incorporated or domiciled in such relevant jurisdiction.

1.1.2 "**Annual Rent**" means a rate of £204,012.50 per annum (exclusive of VAT) as revised pursuant to Schedule 1.

1.1.3 "**Building**" means The Merrifield Centre, Rosemary Lane, Cambridge CB1 3LQ shown edged blue on Plan 2 registered under title number CB192579

1.1.4 **"Car Park"** means the car park tinted blue on Plan 3.

1.1.5 "**CDM Regulations**" means the Construction (Design and Management) Regulations 2015 (*SI 2015/51*).

1.1.6 "**Common Parts**" means all Service Media used or capable of being used in common with other parts of the Building and those parts of the Building used in common with others necessary for access, use and enjoyment of the Property including but not limited to the server room, the plant room, the internal storage room, reception, meeting rooms and the board room as identified on Plan 1 together with the Car Park.

1.1.7 **Contaminated Land Regime:** the contaminated land regime under Part 2A of the Environmental Protection Act 1990 as amended from time to time) and any statutory instrument, circular or guidance issued under it.

1.1.8 "**Contractual Term**" means a term of four years beginning on, and including the date of this lease and ending on, and including 21 December, 2021.

1.1.9 "**Default Interest Rate**" means 4 % per annum above the Interest Rate.

1.1.10 "**Energy Assessor**" means an individual who is a member of an accreditation scheme approved by the Secretary of State in accordance with regulation 22 of the Energy Performance of Buildings (England and Wales) Regulations 2012 (SI 2012/3118) or regulation 30 of the Building Regulations 2010 (SI 2010/2214).

1.1.11 "**Energy Performance Certificate**" means a certificate as defined in regulation 2(1) of the Energy Performance of Buildings (England and Wales) Regulations 2012 (SI 2012/3118).

1.1.12 **Enforcing Authority:** the relevant regulator for the Property under the Contaminated Land Regime.

1.1.13 **Environment:** the natural and man-made environment including all or any of the following media, namely air, water and land (including air within buildings and other natural or man-made structures above or below the ground) and any living organisms (including man) or systems supported by those media.

1.1.14 **Environmental Law:** all applicable laws, statutes, secondary legislation, bye-laws, common law, directives, treaties and other measures, judgments and decisions of any court or tribunal, and legally binding codes of practice and guidance notes (as amended from time to time) in so far as they relate to the protection of the Environment.

1.1.15 **Estimated Service Charge:** means the estimated service charge referred to in clause 7.6.

1.1.16 **Hazardous Substances:** any material, substance or organism which, alone or in combination with others, is capable of causing harm to the Environment or which is likely to cause an actionable nuisance.

1.1.17 "**Insurance Rent**" means the aggregate in each year of:

1.1.17.1 the Tenant's Proportion of the gross cost of the premium before any discount for the insurance of the Building (but giving credit to the Tenant for any commission payable for the insurance of the Building), for its full reinstatement cost (taking inflation of building costs into account) against loss or damage by or in consequence of the Insured Risks, including costs of demolition, site clearance, site protection and shoring-up, professionals' and statutory fees and incidental expenses, the cost of any work which may be required under any law and VAT in respect of all those costs, fees and expenses, and public liability insurance in relation to the Common Parts;

1.1.17.2 the gross cost of the premium before any discount (but giving credit to the Tenant for any commission payable for the insurance of the Building) for insurance for loss of Annual Rent from the Property for not less than 3 years; and

1.1.17.3 any insurance premium tax payable on the above.

1.1.18 "**Insured Risks**" means fire, explosion, lightning, earthquake, storm, flood, bursting and overflowing of water tanks, apparatus or pipes, impact by aircraft and articles dropped from them, impact by vehicles, subsidence, ground slip, heave, riot, civil commotion and any other risks against which the Landlord decides to insure against from time to time and Insured Risk: means any one of the Insured Risks.

1.1.19 "**Interest Rate**" means the base rate from time to time of Barclays Bank, or if that base rate stops being used or published then a comparable commercial rate reasonably determined by the Landlord.

1.1.20 "**Lettable Unit**" means a part of the Building other than the Property that is let or capable of being let and occupied on terms similar to those of this lease.

1.1.21 "**LTA 1954**" means Landlord and Tenant Act 1954.

1.1.22 "**Permitted Use**" means offices and laboratory within Use Classes B1, B2 or D1 of the Town and Country Planning (Use Classes) Order 1987 as at the date this lease is granted.

1.1.23 "**Plan 1**" means the plan attached to this lease marked "Plan 1".

1.1.24 "**Plan 2**" means the plan attached to this lease marked "Plan 2".

1.1.25 **"Plan 3"** means the plan attached to this lease marked "Plan 3".

1.1.26 "**Property**" means the part of the of the Building (the floor plan of which is shown edged red on Plan 1) bounded by and including:

1.1.26.1 the floor screed;

1.1.26.2 the ceiling plasterboard;

1.1.26.3 the interior plasterwork and finishes of exterior walls and columns;

1.1.26.4 the plasterwork and finishes of the interior structural walls and columns that adjoin another Lettable Unit or the Common Parts;

1.1.26.5 the doors and windows within the interior, structural walls and columns that adjoin another Lettable Unit or the Common Parts and their frames and fittings;

1.1.26.6 one half of the thickness of the interior, non-structural walls and columns that adjoin another Lettable Unit or the Common Parts;

1.1.26.7 the doors and windows within the interior, non-structural walls and columns that adjoin the Common Parts and their frames and fittings; and

1.1.26.8 the Landlord's fixtures and fittings including but not limited to the laboratory benches, the laboratory shelving and cupboards;

1.1.26.9 all Service Media exclusively serving the Property within the Building;

but excluding:

1.1.26.10 the windows in the exterior walls and their frames and fittings;

1.1.26.11 the whole of the interior load-bearing walls and columns within that part of the Building other than their plasterwork and other than the doors and windows and their frames and fittings within such walls; and

1.1.26.12 all Service Media within the Building but which do not exclusively serve the Property.

1.1.27 "**Recommendation Report**" means a report as defined in regulation 4 of the Energy Performance of Buildings (England and Wales) Regulations 2012 (SI 2012/3118).

1.1.28 "**Rent Commencement Date**" means 22 December, 2017.

1.1.29 "**Rent Payment Dates**" means 25 March, 24 June, 29 September and 25 December.

1.1.30 "**Reservations**" means all of the rights excepted, reserved and granted to the Landlord by this lease.

1.1.31 **"Schedule of Condition**: means the Schedule of Condition annexed hereto at the date of this lease and following completion of the Works the revised schedule of condition referred to in Schedule 1 which will be prepared and signed by or on behalf of both parties hereto and referable to this Lease.

1.1.32 "**Service Charge**" means the Tenant's Proportion of the Service Costs.

1.1.33 "**Service Charge Year**" means the annual accounting period relating to the Services and the Service Costs beginning on the date hereof and each subsequent year during the term or as notified to the Tenant by the Landlord in writing.

1.1.34 "**Service Costs**" means the costs listed in *clause 7.2*.

1.1.35 "**Service Media**" means all media for the supply or removal of heat, electricity, gas, water, sewage, air-conditioning, energy, telecommunications, data and all other services and utilities and all structures, machinery and equipment ancillary to those media.

1.1.36 "**Services**" means the services listed in *clause 7.1*.

1.1.37 **"SPA"** means the Share Purchase Agreement dated 22 December, 2017 and made between D Williams and Other (1) and Marmalada PLC (2)

1.1.38 "**Tenant's Proportion**" means a fair and proper proportion determined by the Landlord acting reasonably.

1.1.39 "**Third Party Rights**" means all rights, covenants and restrictions affecting the Building including the matters referred to at the date of this lease in the property register of title number CB192579.

1.1.1 "**Uninsured Risk**" means any risk which is not an Insured Risk or any risk(s) which the Landlord is unable to insure against because such insurance is not readily available in the insurance market or the cost of obtaining cover against such risk(s) is unreasonably high or the terms of such insurance cover are subject to unreasonable conditions or the risk(s) for which cover is sought is excluded under the terms of the insurance policy.

1.1.40 "**VAT**" means value added tax chargeable under the VATA 1994 and any similar replacement tax and any similar additional tax.

1.1.41 "**VATA 1994**" means Value Added Tax Act 1994.

1.1.42 "**Works**" means the Landlord's Works as described in Schedule 1.

1.2 A reference to this "**lease**", except a reference to the date of this lease or to the grant of this lease, is a reference to this deed and any deed, licence, consent, approval or other instrument supplemental to it.

1.3 A reference to the "**Landlord**" includes a reference to the person entitled to the immediate reversion to this lease. A reference to the "**Tenant**" includes a reference to its successors in title and assigns. A reference to a "**guarantor**" is a reference to any guarantor of the tenant covenants of this lease including a guarantor who has entered into an authorised guarantee agreement.

1.4 In relation to any payment, a reference to a "**fair proportion**" is to a fair proportion of the total amount payable, determined by the Landlord acting reasonably.

1.5 The expressions "**landlord covenant**" and "**tenant covenant**" each has the meaning given to it by the Landlord and Tenant (Covenants) Act 1995.

1.6 Unless the context otherwise requires, references to the "**Building**", the "**Common Parts**", a "**Lettable Unit**" and the "**Property**" are to the whole and any part of them or it.

1.7 The expression "**neighbouring property**" does not include the Building.

1.8 A reference to the "**term**" is to the Contractual Term.

1.9 A reference to the "**end of the term**" is to the end of the term however it ends.

1.10 References to the "**consent**" of the Landlord are to the consent of the Landlord given in accordance with *clause 33.5* and references to the "**approval**" of the Landlord are to the approval of the Landlord given in accordance with *clause 33.6*.

1.11 A "**working day**" is any day which is not a Saturday, a Sunday, a bank holiday or a public holiday in England.

1.12 A reference to laws in general is a reference to all local, national and directly applicable supra-national laws as amended, extended or re-enacted from time to time and shall include all subordinate laws made from time to time under them and all orders, notices, codes of practice and guidance made under them.

1.13 Unless otherwise specified, a reference to a statute or statutory provision is a reference to it as amended, extended or re-enacted from time to time and shall include all subordinate legislation made from time to time under that statute or statutory provision and all orders, notices, codes of practice and guidance made under it.

1.14 Any obligation on the Tenant not to do something includes an obligation not to allow that thing to be done and an obligation to use best endeavours to prevent that thing being done by another person.

1.15 Unless the context otherwise requires, any words following the terms "**including**", "**include**", **in particular**, **for example** or any similar expression shall be construed as illustrative and shall not limit the sense of the words, description, definition, phrase or term preceding those terms.

1.16 A "**person**" includes a natural person, corporate or unincorporated body (whether or not having separate legal personality).

1.17 A reference to **writing** or **written** does not include fax or email

1.18 Unless the context otherwise requires, references to clauses and Schedules are to the clauses and Schedules of this lease and references to paragraphs are to paragraphs of the relevant Schedule.

1.19 Clause, Schedule and paragraph headings shall not affect the interpretation of this lease.

1.20 Unless the context otherwise requires, a reference to one gender shall include a reference to the other genders.

1.21 Unless the context otherwise requires, words in the singular shall include the plural and in the plural shall include the singular.

2 GRANT

2.1 The Landlord lets with full title guarantee the Property to the Tenant for the Contractual Term.

2.2 The grant is made together with the ancillary rights set out in *clause 3*, excepting and reserving to the Landlord the rights set out in *clause 4*, and subject to the Third Party Rights.

2.3 The grant is made with the Tenant paying the following as rent to the Landlord:

2.3.1 the Annual Rent and all VAT in respect of it;

2.3.2 the Estimated Service Charge and all VAT in respect of it;

2.3.3 the Insurance Rent;

2.3.4 all interest payable under this lease; and

2.3.5 all other sums due under this lease (but not any Service Charge in excess of the Estimated Service Charge).

3 ANCILLARY RIGHTS

3.1 The Landlord grants the Tenant the following rights (the "**Rights**"):

3.1.1 the right to support and protection from the Building ;

3.1.2 the right of free passage of water soil gas electricity telecommunication data and other services through drains sewers channels and other conducting media serving the Property which pass through over or under any other part of the Building or the

Common Parts together with the right to enter other parts of the Building or Common Parts for the purposes of inspecting, maintaining making connections or carrying out repairs to and replacement of any conducting media serving the Property;

3.1.3 the right of way on foot only for the purposes of access to and egress from the Property the board room and the meeting rooms(referred to in clause 3.1.8)and the lavatories (referred to in clause 3.1.7) for the benefit of the Tenant and those authorised by the Tenant in common with the Landlord other persons having a like right all other persons authorised by the Landlord and other tenants of the Building over and along the Common Parts affording access or leading to or from the streets abutting the Building;

3.1.4 the right to park private cars or motorbikes belonging to the Tenant, its employees and visitors within the Car Park on a first come first served basis or any other additional area as the Landlord shall from time to time nominate and notify to the Tenant;

3.1.5 the right to use the area designated by the Landlord (acting reasonably) as notified to the Tenant for keeping bicycles belonging to the Tenant, its employees and visitors on a first come first served basis or any other additional area as the Landlord shall from time to time nominate and notify to the Tenant;

3.1.6 the right to dispose of rubbish in such rubbish disposal area within the Building as may from time to time be designated (acting reasonably) by the Landlord;

3.1.7 the right to use the lavatories and washrooms in the Common Parts;

3.1.8 subject to availability, the right to use the board room and meeting rooms in the Common Parts it being hereby acknowledged that the Landlord and the Tenant shall co-operate with each other to try to ensure that each has a fair and reasonable share of the use of the board room and the meeting rooms;

3.1.9 the right to use and to connect into any Service Media at the Building that belong to the Landlord and serve (but do not form part of) the Property which are in existence at the date of this lease or are installed or constructed during the Contractual Term;

3.1.10 the right to attach any item to the Common Parts adjoining the Property so far as is reasonably necessary to carry out any works to the Property required or permitted by this lease;

3.1.11 the right to display the name and logo of the Tenant on a sign or noticeboard provided by the Landlord in the Building and on the Common Parts at the entrance to the Property, in each case in a form and manner approved by the Landlord such approval not to be unreasonably withheld or delayed; and

3.1.12 the right to enter the Common Parts or any other Lettable Unit so far as is reasonably necessary to carry out any works to the Property required or permitted by this lease.

3.2 The Rights are granted in common with the Landlord and any other person authorised by the Landlord.

3.3 The Rights are granted subject to the Third Party Rights insofar as the Third Party Rights affect the Common Parts and the Tenant shall not do anything that may interfere with any Third Party Right.

3.4 The Tenant shall exercise the Rights (other than the Right mentioned in *clause 3.1.1*) only in connection with its use of the Property for the Permitted Use and in accordance with any regulations made by the Landlord as mentioned in *clause 23.1*.

3.5 The Tenant shall comply with all laws relating to its use of the Common Parts pursuant to the Rights.

3.6 In relation to the Rights mentioned in *clause 3.1.2* to *clause 3.1.7* , the Landlord may, at its discretion, change the route of any means of access to or egress over the Common Parts to and from the Property and may change the area within the Common Parts over which any of those Rights are exercised provided that in both cases the Landlord (a) acts reasonably in so doing and (b) provides alternative means of access and egress and an area for the exercise of the Rights no less commodious than those enjoyed at the date hereof.

3.7 In relation to the Rights mentioned in *clause 3.1.4* and *clause 3.1.6* the Landlord may from time to time designate (acting reasonably in so doing) within the Common Parts the spaces or bins (as the case may be) in respect of which the Tenant may exercise that Right.

3.8 In relation to the Rights mentioned in *clause 3.1.9*, the Landlord may, at its discretion (acting reasonably), re-route or replace over the Common Parts any such Service Media and that Right shall then apply in relation to the Service Media as re-routed or replaced.

3.9 In relation to the Right mentioned in *clause 3.1.10*, where the Tenant requires the consent of the Landlord to carry out the works to the Property, the Tenant may only exercise that Right when that consent has been granted and in accordance with the terms of that consent.

3.10 In exercising the rights of entry and/or the carrying out of any works pursuant to those rights mentioned in *clauses 3.1.2 and 3.1.12*, the Tenant shall:

3.10.1 except in case of emergency (when no notice need be given), give reasonable written notice to the Landlord and any occupiers of the relevant Lettable Unit(s) of its intention to exercise that Right;

3.10.2 where reasonably required by the Landlord or the occupier of the relevant Lettable Unit(s), exercise that Right only if accompanied by a representative of the Landlord and/or the tenant and/or the occupier of the relevant Lettable Unit(s);

3.10.3 cause as little interference and/or damage as reasonably practicable to the Common Parts and the other Lettable Units and to any property belonging to or used by the Landlord or the tenants or occupiers of the other Lettable Units;

3.10.4 cause as little inconvenience as reasonably practicable to the Landlord and the tenants and occupiers of the other Lettable Units as is reasonably practicable; and

3.10.5 promptly make good at its own cost (to the proper satisfaction of the Landlord) any damage whatsoever caused by reason of the Tenant exercising that Right.

3.11 Except as mentioned in this *clause 3*, neither the grant of this lease nor anything in it confers any right over the Common Parts or any Lettable Unit or any neighbouring property nor is to be taken to show that the Tenant may have any right over the Common Parts or any Lettable Unit or any neighbouring property, and section 62 of the Law of Property Act 1925 does not apply to this lease.

4 RIGHTS EXCEPTED AND RESERVED

4.1 The following rights are excepted and reserved from this lease to the Landlord and those reasonably and properly authorised by the Landlord for the benefit of the Building:

4.1.1 rights of light, air, support and protection to the extent those rights are capable of being enjoyed at any time during the Contractual Term;

4.1.2 the right of free passage and running of water and soil in and through the sewers drains and channels made or to be made upon through or under the Property and

to the free and uninterrupted use of all gas electric telephone and pipes wires and cables upon through or under the Property;

4.1.3 the right to use, lay new and connect into Service Media at, but not forming part of, the Property which are in existence at the date of this lease or which are installed or constructed during the Contractual Term the right to install and construct Service Media at the Property to serve any part of the Building (whether or not such Service Media also serve the Property); and the right to re-route any Service Media mentioned in this clause;

4.1.4 the right of access to or egress over the Property to the Common Parts for all purposes;

4.1.5 the right to erect scaffolding at the Property or the Building and attach it to any part of the Property or the Building in connection with any of the Reservations;

4.1.6 the right to attach any structure, fixture or fitting to the boundary of the Property in connection with any of the Reservations;

4.1.7 the right to re-route any means of access to or egress from the Property or the Building and to change the areas over which the Rights mentioned in *clause 3.1.1* to *clause 3.1.7* are exercised;

4.1.8 the right to re-route and replace any Service Media over which the Rights mentioned in *clause 3.1.9* are exercised; and

4.1.9 the right to build or rebuild or alter any adjacent or neighbouring land or buildings in any manner whatsoever and to let the same for any purpose or otherwise deal therewith provided that the light and air to the Property are not in any such case thereby diminished and that no other liberty easement right or advantage belonging to the Tenant is thereby diminished or prejudicially affected.

4.2 The Landlord reserves the right to enter the Property:

4.2.1 to repair, maintain, install, construct, re-route or replace any Service Media or structure relating to any of the Reservations;

4.2.2 to carry out any works to any other Lettable Unit; and

4.2.3 for any other purpose mentioned in or connected with:

4.2.3.1 this lease;

4.2.3.2 the Reservations; and

4.2.3.3 the Landlord's interest in the Property or the Building.

4.3 The Reservations may be exercised by the Landlord and by anyone else who is or becomes entitled to exercise them, and by anyone properly and reasonably authorised by the Landlord.

4.4 The Tenant shall allow all those entitled to exercise any right to enter the Property, to do so with their workers, contractors, agents and professional advisors, and to enter the Property at any reasonable time (whether or not during usual business hours) and, except in the case of an emergency, after having given reasonable notice in writing to the Tenant.

4.5 PROVIDED THAT the Landlord shall cause as little interference as is reasonably practicable to the Tenant's beneficial use and enjoyment of the Property in the exercise of the rights referred to in this clause 4 and shall make good promptly at its own cost and to the Tenant's proper satisfaction expressed in writing any damage caused by or because of the exercise of such rights to the Property and/or to the Tenant's fixtures and fittings and/or to the Tenant's chattels

4.6

5 THIRD PARTY RIGHTS

5.1 The Tenant shall comply with all obligations on the Landlord relating to the Third Party Rights insofar as those obligations relate to the Property and shall not do anything (even if otherwise permitted by this lease) that may interfere with any Third Party Right.

5.2 The Tenant shall allow the Landlord and any other person authorised by the terms of the Third Party Right to enter the Property in accordance with its terms.

6 THE ANNUAL RENT

6.1 The Tenant shall pay the Annual Rent and any VAT in respect of it by four equal instalments in advance on or before the Rent Payment Dates. The payments shall be made by banker's standing order or by any other method (but not by direct debit) that the Landlord requires at any time by giving notice to the Tenant.

6.2 The first instalment of the Annual Rent and any VAT in respect of it shall be made on the date of this lease and shall be the proportion, calculated on a daily basis,

in respect of the period beginning on the date of this lease and ending on the day before the next Rent Payment Date.

7 SERVICES AND SERVICE CHARGE

7.1 The "**Services**" are:

7.1.1 cleaning, maintaining, decorating and repairing the Common Parts, including the structural parts of the Building and all Service Media forming part of the Common Parts provided that, in respect of cleaning windows, the Landlord's obligation is limited to cleaning the outside of the windows of the Building;

7.1.2 lighting the Common Parts and cleaning, maintaining, repairing and replacing lighting machinery and equipment on the Common Parts;

7.1.3 cleaning, maintaining, repairing and replacing refuse bins on the Common Parts;

7.1.4 cleaning, maintaining, repairing and replacing signage for the Common Parts;

7.1.5 cleaning, maintaining, repairing, operating and replacing security machinery and equipment (including closed circuit television) on the Common Parts;

7.1.6 cleaning, maintaining, repairing, operating and replacing fire prevention, detection and fighting machinery and equipment and fire alarms on the Common Parts;

7.1.7 cleaning, maintaining, repairing and replacing a signboard showing the names and logos of the tenants and other occupiers in the entrance hall of the Building if any;

7.1.8 maintaining the landscaped and grassed areas of the Common Parts;

7.1.9 cleaning, maintaining, repairing and replacing the floor coverings on the internal areas of the Common Parts;

7.1.10 cleaning, maintaining, repairing and replacing the furniture and fittings on the Common Parts;

7.1.11 cleaning, maintaining, repairing and replacing the furniture, fittings and equipment in the lavatories on the Common Parts and providing hot and cold water, soap, paper, towels and other supplies for them;

7.1.12 heating the internal areas of the Building and cleaning, maintaining, repairing and replacing heating machinery and equipment serving the Building;

7.1.13 providing air-conditioning for the internal areas of the Common Parts and/or the Building and cleaning, maintaining, repairing and replacing air-conditioning equipment serving the Common Parts;

7.1.14 providing reception and cleaning staff for the Building and such reception staff shall co-ordinate the use of the boardroom and meetings rooms; and

7.1.15 any other service or amenity that the Landlord may in its absolute discretion provide for the benefit of the tenants and occupiers of the Building.

7.2 The "**Service Costs**" are the total of:

7.2.1 the whole of the proper costs properly incurred of:

7.2.1.1 providing the Services;

7.2.1.2 the supply and removal of electricity, gas, water, sewage and other utilities to and from the Building;

7.2.1.3 complying with the reasonable recommendations and the requirements of the insurers of the Building (insofar as those recommendations and requirements relate to the Common Parts);

7.2.1.4 complying with all laws relating to the Common Parts, their use and any works carried out at them, and relating to the use of all Service Media, machinery and equipment at or serving the Common Parts and to any materials kept at or disposed of from the Common Parts;

7.2.1.5 complying with the Third Party Rights insofar as they relate to the Common Parts; and

7.2.1.6 taking any steps (including proceedings) that the Landlord (acting reasonably) considers necessary to prevent or remove any encroachment over the Common Parts or to prevent the acquisition of any right over the Common Parts (or the Building as a whole) or to remove any obstruction to the flow of light or air to the Common Parts (or the Building as a whole);

7.2.2 the proper costs, fees and disbursements (on a full indemnity basis) of:

7.2.2.1 managing agents employed by the Landlord for the carrying out and provision of the Services or, where managing agents are not employed, a management fee for the same; and

7.2.2.2 accountants employed by the Landlord to prepare and audit the service charge accounts;

7.2.3 (insofar as they relate to the Building only) the costs of the salaries and employer costs (including pension, welfare and insurance contributions) of reception and cleaning staff for the Building and of all equipment and supplies needed for the proper performance of their duties;

7.2.4 all rates, taxes, impositions and outgoings payable in respect of the Common Parts, their use and any works carried out on them (other than any taxes payable by the Landlord in connection with any ownership or holding on trust of or dealing with or disposition of its reversionary interest in the Building); and

7.2.5 any VAT payable by the Landlord in respect of any of the items mentioned above except to the extent that the Landlord obtains credit for such VAT under the VATA 1994.

7.3 Subject to the Tenant paying the Service Charge, the Landlord shall use reasonable endeavours (where it is not the responsibility of the Tenant under this lease or save where any Service Media forms part of the Property):

7.3.1 to clean, maintain, decorate and repair the Common Parts, including the structural parts of the Building and all Service Media forming part of the Common Parts ;

7.3.2 to repair the Common Parts;

7.3.3 to provide heating and air-conditioning to the internal areas of the Common Parts and the Property during such periods of the year as the Landlord reasonably considers appropriate;

7.3.4 to provide electricity, gas and water to the Property;

7.3.5 to keep the internal areas of the Common Parts clean, and to clean the outside of the windows of the Building as often as the Landlord reasonably considers appropriate;

7.3.6 to keep the internal areas of the Common Parts reasonably well lit and in any event no worse lit than they are at the date of this Lease;

7.3.7 to supply hot and cold water, soap, paper, towels and other supplies for the lavatories in the Common Parts;

7.3.8 to clean, maintain, repair, operate and replace fire prevention, detection and fighting machinery and equipment and fire alarms on the Common Parts;

7.3.9 to heat the internal areas of the Building and clean, maintain, repair and replace heating machinery and equipment serving the Building; and

7.3.10 to provide air-conditioning for the internal areas of the Common Parts and clean, maintain, repair and replace air-conditioning equipment serving the Common Parts.

7.4 The Landlord may, but shall not be obliged to, provide any of the other Services. The Landlord shall not be obliged to carry out any works where the need for those works has arisen by reason of any damage or destruction by a risk against which the Landlord is not obliged to insure.

7.5 The Landlord shall not be liable for:

7.5.1 any interruption in, or disruption to, the provision of any of the Services for any reason that is outside the reasonable control of the Landlord provided that the Landlord has taken reasonably practicable steps to stop, limit or prevent any such interruption of disruption PROVIDED THAT this will not apply in relation to the failure of any utility providers; or

7.5.2 any injury, loss or damage suffered by the Tenant as a result of any absence or insufficiency of any of the Services or of any breakdown or defect in any Service Media, except where due to the negligence of the Landlord.

7.6 Before or as soon as practicable after the start of each Service Charge Year, the Landlord shall prepare and send the Tenant an estimate of the Service Costs for

that Service Charge Year and a statement of the estimated Service Charge for that Service Charge Year.

7.7 The Tenant shall pay the estimated Service Charge for each Service Charge Year in four equal instalments on each of the Rent Payment Dates.

7.8 In relation to the Service Charge Year current at the date of this lease, the Tenant's obligations to pay the estimated Service Charge and the actual Service Charge shall be limited to an apportioned part of those amounts, such apportioned part to be calculated on a daily basis for the period from and including the date of this lease to the end of the Service Charge Year. The estimated Service Charge for which the Tenant is liable shall be paid in equal instalments on the remaining Rent Payment Dates during the period from and including the date of this lease until the end of the Service Charge Year.

7.9 As soon as reasonably practicable after the end of each Service Charge Year, the Landlord shall prepare and send to the Tenant a certificate (prepared by an independent and properly qualified person) showing the Service Costs and the Service Charge for that Service Charge Year .For the period of one month from the date of receipt of the said certificate by the Tenant the Tenant shall be entitled to inspect (at a location convenient to the Tenant) all invoices receipts vouchers and any other relevant paperwork used to compile the Service Charge and to take copies thereof.

7.10 If any cost which should have been included in the calculation of the Service Charge in any Service Charge Year is omitted from it, the Landlord shall be entitled to include it in the estimate and certificate of the Service Charge in any following Service Charge Year. Otherwise, and except in the case of manifest or proven error, the Service Charge certificate shall be conclusive as to all matters of fact to which it refers.

7.11 If, in respect of any Service Charge Year, the Landlord's estimate of the Service Charge is less than the Service Charge, the Tenant shall pay the difference on written demand. If, in respect of any Service Charge Year, the Landlord's estimate of the Service Charge is more than the Service Charge, the Landlord shall credit the difference against the Tenant's next instalment of the estimated Service Charge (and where the difference exceeds the next instalment then the balance of the

difference shall be credited against each succeeding instalment until it is fully credited) or in the case of the last year of the Contractual Term the Landlord shall return promptly any outstanding balance to the Tenant.

8 INSURANCE

8.1 Subject to *clause 8.2*, the Landlord shall keep the Building insured against loss or damage by the Insured Risks for the sum which the Landlord considers to be its full reinstatement cost (taking inflation of building costs into account). The Landlord shall not be obliged to insure any part of the Property installed by the Tenant.

8.2 The Landlord's obligation to insure is subject to:

8.2.1 any exclusions, limitations, excesses and conditions that may be imposed by the insurers; and

8.2.2 insurance being available in the London insurance market on reasonable terms acceptable to the Landlord.

8.3 The Tenant shall pay to the Landlord on written demand:

8.3.1 the Insurance Rent;

8.3.2 any amount that is deducted or disallowed by the insurers pursuant to any excess provision in the insurance policy; and

8.3.3 the Tenant's Proportion of any costs that the Landlord incurs in obtaining a valuation of the Building for insurance purposes.

8.4 The Tenant shall:

8.4.1 promptly inform the Landlord if any matter occurs in relation to the Tenant or the Property that any insurer or underwriter may treat as material in deciding whether or on what terms to insure or to continue to insure the Building;

8.4.2 not do or omit anything as a result of which any policy of insurance of the Building (of the terms of which the Tenant has notice) may become void or voidable or otherwise prejudiced, or the payment of any policy money may be withheld, nor (unless the Tenant has previously notified the Landlord and has paid any increased or additional premium) anything as a result of which any increased or additional insurance premium may become payable;

8.4.3 comply at all times with the requirements and reasonable recommendations of the insurers relating to the Property and the use by the Tenant of the Common Parts;

8.4.4 promptly give the Landlord notice of the occurrence of any damage or loss relating to the Property arising from an Insured Risk;

8.4.5 not effect any insurance of the Property, but if it becomes entitled to the benefit of any insurance proceeds in respect of the Property pay those proceeds or cause them to be paid to the Landlord; and

8.4.6 pay the Landlord an amount equal to any insurance money that the insurers of the Building refuse to pay (in relation to the Building) by reason of any act or omission of the Tenant or any undertenant, their workers, contractors or agents or any person at the Property or the Common Parts with the actual or implied authority of any of them.

8.5 The Landlord shall, subject to obtaining all necessary planning and other consents, use all insurance money received (other than for loss of rent) in connection with any damage to the Building to repair the damage for which the money has been received or (as the case may be) in rebuilding the Building. The Landlord shall not be obliged to:

8.5.1 provide accommodation or facilities identical in layout or design so long as accommodation reasonably equivalent to that previously at the Property and its access, services and amenities is provided; or

8.5.2 repair or rebuild if the Tenant has failed to pay any of the Insurance Rent; or

8.5.3 repair or rebuild the Building after a notice has been served pursuant to *clause 8.7* or *clause 8.8*.

8.6 If the Property is damaged or destroyed by an Insured Risk or Uninsured Risk so as to be unfit for occupation and use or if the Common Parts are damaged or destroyed by an Insured Risk or Uninsured Risk so as to make the Property inaccessible or unusable then, unless and to the extent the policy of insurance in relation to the Property or the Common Parts has been vitiated in whole or in part in consequence of any act or omission of the Tenant, any undertenant or their respective workers, contractors or agents or any other person on the Property or the Common Parts with the actual or implied authority of any of them, payment of the Annual Rent, or a fair proportion of it according to the nature and extent of the damage, shall be suspended until the Property has been reinstated and made fit for occupation and use or the Common Parts have been reinstated so as to make

the Property accessible or useable (as the case may be), or until the end of three years from the date of damage or destruction, if sooner.

8.7 If, following damage to or destruction of the Building, the Landlord considers that it is impossible or impractical to reinstate the Building or the Property has not been reinstated so as to be fit for occupation or the Common Parts have not been reinstated to make the Property accessible or useable within one year after the date of damage or destruction, the Landlord may terminate this lease by giving notice to the Tenant. On giving notice this lease shall determine but this shall be without prejudice to any right or remedy of the Landlord or the Tenant in respect of any breach of the tenant covenants of this lease. Any proceeds of the insurance shall belong to the Landlord.

8.8 Provided that the Tenant has complied with its obligations in this clause, the Tenant may terminate this lease by giving notice to the Landlord if, following damage or destruction of the Property or the Common Parts by an Insured Risk, the Property has not been reinstated so as to be fit for occupation and use or the Common Parts have not been reinstated so as to make the Property accessible or useable within one year after the date of damage or destruction. On giving this notice this lease shall determine but this shall be without prejudice to any right or remedy of the Landlord or the Tenant in respect of any breach of the covenants of this lease. Any proceeds of the insurance shall belong to the Landlord.

9 RATES AND TAXES

9.1 The Tenant shall pay all present and future rates, taxes and other impositions and outgoings payable in respect of the Property, its use and any works carried out there, except:

9.1.1 any taxes payable by the Landlord in connection with ownership or holding on trust of or any dealing with or disposition of the reversion to this lease; or

9.1.2 any taxes (other than VAT and insurance premium tax) payable by the Landlord by reason of the receipt of any of the rents due under this lease.

9.2 If any such rates, taxes or other impositions and outgoings are payable in respect of the Property together with other land (including any other part of the Building) the Tenant shall pay a fair proportion of the total.

9.3 The Tenant shall not make any proposal to alter the rateable value of the Property or that value as it appears on any draft rating list, without the approval of the Landlord.

9.4 If, after the end of the term, the Landlord loses rating relief (or any similar relief or exemption) because it has been allowed to the Tenant, then the Tenant shall pay the Landlord an amount equal to the relief or exemption that the Landlord has lost.

10 UTILITIES

10.1 The Tenant shall pay all costs in connection with the supply and removal of electricity, gas, water, sewage, telecommunications and data and other services and utilities to or from the Property.

10.2 The Tenant shall comply with all laws and with any reasonable recommendations of the relevant suppliers relating to the use of those services and utilities the supply and removal of electricity, gas, water, sewage, telecommunications, data and other services and utilities to or from the Property.

11 COMMON ITEMS

11.1 From time to time to pay on demand a fair proportion (to be determined by the Landlord acting reasonably) of the expenses payable in respect of repairing renewing cleansing and lighting as appropriate all (if any) roofs walls fences Service Media drains roads paths pavements car parks and hard standings and other things the use or benefit of which is common to the Building and other premises insofar as such expense is not included in the annual service charge herein reserved

11.2 The Tenant shall comply with all reasonable regulations the Landlord may make and communicate to the Tenant from time to time in connection with the use of any of those Service Media, structures or other items.

12 VAT

12.1 All sums payable by the Tenant are exclusive of any VAT that may be chargeable. On receipt of a valid VAT invoice addressed to the Tenant the Tenant shall pay VAT in respect of all taxable supplies made to it in connection with this lease on the due date for making any payment.

12.2 Every obligation on the Tenant, under or in connection with this lease, to pay the Landlord or any other person any sum by way of a refund or indemnity, shall include an obligation to pay an amount equal to any VAT incurred on that sum by the

Landlord or other person, except to the extent that the Landlord or other person obtains credit for such VAT under the VATA 1994.

13 DEFAULT INTEREST AND INTEREST

13.1 If any Annual Rent has not been paid by the date it is due whether it has been formally demanded or not or if any other money due under the terms of this Lease has not been paid within 15 working days of the Tenant's receipt of a written demand therefor, the Tenant shall pay the Landlord interest on that amount at the Default Interest Rate (both before and after any judgment). Such interest shall accrue on a daily basis for the period beginning on the due date to and including the date of payment.

13.2 If the Landlord does not demand or accept any Annual Rent or other money due or tendered under this lease because the Landlord reasonably believes that the Tenant is in breach of any of the tenant covenants of this lease, then the Tenant shall, when that amount is accepted by the Landlord, also pay interest at the Interest Rate on that amount for the period beginning on the date the amount (or each part of it) became due until the date it is accepted by the Landlord.

14 COSTS

14.1 The Tenant shall pay the proper costs and expenses of the Landlord including any solicitors' or other professionals' costs and expenses (incurred both during and after the end of the term) properly incurred in connection with or in bona fide contemplation of any of the following:

14.1.1 the enforcement of the tenant covenants of this lease;

14.1.2 serving any notice in connection with this lease under section 146 or 147 of the Law of Property Act 1925 or taking any proceedings under either of those sections, notwithstanding that forfeiture is avoided otherwise than by relief granted by the court;

14.1.3 serving any notice in connection with this lease under section 17 of the Landlord and Tenant (Covenants) Act 1995;

14.1.4 the preparation and service of a schedule of dilapidations in connection with this lease; or

14.1.5 any consent or approval applied for under this lease, whether or not it is granted unless such consent or approval has been unreasonably withheld or delayed.

14.2 Where the Tenant is obliged to pay or indemnify the Landlord against any solicitors' or other professionals' costs and expenses (whether under this or any other clause of this lease) that obligation extends to those costs and expenses assessed on a full indemnity basis.

15 COMPENSATION ON VACATING

Any right of the Tenant or anyone deriving title under the Tenant to claim compensation from the Landlord on leaving the Property under the LTA 1954 is excluded, except to the extent that the legislation prevents that right being excluded.

16 SET-OFF

The Annual Rent and all other amounts due under this lease shall be paid by the Tenant or any guarantor (as the case may be) in full without any set-off, counterclaim, deduction or withholding (other than any deduction or withholding of tax as required by law).

17 PROHIBITION OF DEALINGS

17.1 The Tenant shall not assign, underlet, charge (other than by way of a bona fide charge at arms' length to a recognised financial institution), part with or share possession of this lease or the Property or hold the lease on trust for any person.

17.1.1 Notwithstanding anything else contained in this Lease if the Tenant for the time being is a company the sharing of the use of the Property or any part thereof with another company within the same group of companies as defined in Section 42(1) of the 1954 Act ("Group Company") shall be permitted provided that

17.1.1.1 no tenancy licence or other legal estate or interest nor any legally enforceable right of occupation shall thereby be created;

17.1.1.2 no relationship of landlord and tenant is established by the arrangement;

17.1.1.3 such use shall only continue so long as such other company shall remain a member of the same group as the Tenant

PROVIDED FURTHER THAT there shall be no more than two Group Companies (in addition to the Tenant) occupying the Property at one time and the Tenant shall promptly notify the Landlord in writing of any Group Company sharing occupation of the Property.

18 REPAIRS

18.1 The Tenant shall keep the Property clean and tidy and in good repair and condition and shall ensure that any Service Media within and exclusively serving the Property is kept in good working order PROVIDED THAT (and notwithstanding anything else contained in this Lease) the Tenant shall not be obliged to keep the Property in a better state of repair and condition than as evidenced by the Schedule of Condition.

18.2 The Tenant shall not be liable to repair the Property to the extent that any disrepair has been caused by an Insured Risk, unless and to the extent that:

18.2.1 the policy of insurance of the Property has been vitiated or any insurance proceeds withheld in consequence of any act or omission of the Tenant, any undertenant or their respective workers, contractors or agents or any person on the Property with the actual or implied authority of any of them; or

18.2.2 the insurance cover in relation to that disrepair is excluded, limited, is unavailable or has not been extended, as mentioned in *clause 8.2*.

19 DECORATION

19.1 The Tenant shall decorate the Property as often as is reasonably necessary and in the last three months before the end of the term.

19.2 All decoration shall be carried out in a good and proper manner using good quality materials that are appropriate to the Property and the Permitted Use and shall include all appropriate preparatory work.

19.3 All decoration carried out in the last three months of the term shall also be carried out to the reasonable satisfaction of the Landlord and using materials, designs and colours approved by the Landlord such approval not to be reasonably withheld.

19.4 The Tenant shall replace the floor coverings (by which is meant carpet or carpet tiles wherever they are present) at the Property within three months before the end of the term with new ones of good quality and appropriate to the Property and the Permitted Use.

20 ALTERATIONS AND SIGNS

20.1 The Tenant shall not make any structural alterations to the Property.

20.2 The Tenant shall not make any internal alterations to the Property without the consent of the Landlord, such consent not to be unreasonably withheld.

20.3 The Tenant shall not install nor alter the route of any Service Media at the Property without the consent of the Landlord, such consent not to be unreasonably withheld.

20.4 The Tenant shall not attach any sign, fascia, placard, board, poster or advertisement to the Property so as to be seen from the outside of the Building.

20.5 The Tenant shall not carry out any alteration to the Property which would, or may reasonably be expected to, have an adverse effect on the asset rating in any Energy Performance Certificate commissioned in respect of the Property.

21 RETURNING THE PROPERTY TO THE LANDLORD

21.1 At the end of the term the Tenant shall return the Property to the Landlord in the repair and condition required by this lease.

21.2 No later than three months before the end of the term, the Tenant shall remove items it has fixed to the Property, remove any alterations it has made to the Property and make good any damage caused to the Property by that removal.

21.3 At the end of the term, the Tenant shall remove from the Property all chattels belonging to or used by it.

21.4 The Tenant irrevocably appoints the Landlord to be the Tenant's agent to store or dispose of any chattels or items it has fixed to the Property and which have been left by the Tenant on the Property for more than ten working days after the end of the term. The Landlord shall not be liable to the Tenant by reason of that storage or disposal. The Tenant shall indemnify the Landlord in respect of any claim made by a third party in relation to that storage or disposal.

22 USE

22.1 The Tenant shall not use the Property for any purpose other than the Permitted Use.

22.2 The Tenant shall not use the Property for any illegal purpose nor for any purpose or in a manner that would cause loss, damage, injury, nuisance or inconvenience to the Landlord, the other tenants or occupiers of the Lettable Units or any owner or occupier of neighbouring property.

22.3 The Tenant shall not overload any structural part of the Building nor any Service Media at or serving the Property.

23 MANAGEMENT OF THE BUILDING

23.1 The Tenant shall observe all regulations made by the Landlord from time to time in accordance with the principles of good estate management and notified to the Tenant relating to the use of the Common Parts and the management of the Building.

23.2 Nothing in this lease shall impose or be deemed to impose any restriction on the use of any other Lettable Unit or any neighbouring property.

24 COMPLIANCE WITH LAWS

24.1 The Tenant shall comply with all laws relating to:

24.1.1 the Property and the occupation and use of the Property by the Tenant;

24.1.2 the use or operation of all Service Media and machinery and equipment at or serving the Property whether or not used or operated, and shall, where necessary, replace or convert such Service Media exclusively serving the Property so that it is capable of lawful use or operation;

24.1.3 any works carried out at the Property; and

24.1.4 all materials kept at or disposed from the Property.

24.2 Without prejudice to any obligation on the Tenant to obtain any consent or approval under this lease, the Tenant shall carry out all works that are required under any law to be carried out at the Property whether by the owner or the occupier.

24.3 Within five working days after receipt of any notice or other communication affecting the Property or the Building (and whether or not served pursuant to any law) the Tenant shall:

24.3.1 send a copy of the relevant document to the Landlord; and

24.3.2 insofar as it relates to the Property, take all steps necessary to comply with the notice or other communication and take any other action in connection with it as the Landlord may require at the joint cost of the Landlord and the Tenant.

24.4 The Tenant shall not apply for any planning permission for the Property.

24.5 The Tenant shall comply with its obligations under the CDM Regulations, including all requirements in relation to the provision and maintenance of a health and safety file.

24.6 The Tenant shall supply all information to the Landlord that the Landlord reasonably requires from time to time to comply with the Landlord's obligations under the CDM Regulations.

24.7 As soon as the Tenant becomes aware of any defect in the Property, it shall give the Landlord notice of it. The Tenant shall indemnify the Landlord against any liability

under the Defective Premises Act 1972 in relation to the Property by reason of any failure of the Tenant to comply with any of the tenant covenants in this lease.

24.8 The Tenant shall keep the Property equipped with all fire prevention, detection and fighting machinery and equipment and fire alarms which are required under all relevant laws or required by the insurers of the Property or reasonably recommended by them or reasonably required by the Landlord and shall keep that machinery, equipment and alarms properly maintained and available for inspection.

25 ENERGY PERFORMANCE CERTIFICATES

25.1 The Tenant shall:

25.1.1 co-operate with the Landlord so far as is reasonably necessary to allow the Landlord to obtain an Energy Performance Certificate and Recommendation Report for the Property or the Building including providing the Landlord with copies of any plans or other information held by the Tenant that would assist in obtaining an Energy Performance Certificate; and

25.1.2 allow such access to any Energy Assessor appointed by the Landlord as is reasonably necessary to inspect the Property for the purposes of preparing an Energy Performance Certificate and/or Recommendation Report for the Property or the Building.

25.2 The Tenant shall not commission an Energy Performance Certificate for the Property without the Landlord's consent.

26 ENCROACHMENTS, OBSTRUCTIONS AND ACQUISITION OF RIGHTS

26.1 The Tenant shall not grant any right or licence over the Property to a third party.

26.2 If a third party makes or attempts to make any encroachment over the Property or takes any action by which a right may be acquired over the Property, the Tenant shall:

26.2.1 promptly inform the Landlord and shall give the Landlord notice of that encroachment or action; and

26.2.2 take all steps (including any proceedings) the Landlord reasonably requires to prevent or license the continuation of that encroachment or action but at the joint cost of the Landlord and the Tenant.

26.3 The Tenant shall not obstruct the flow of light or air to the Property or any other part of the Building nor obstruct any means of access to the Property or any other part of the Building.

26.4 The Tenant shall not make any acknowledgement that the flow of light or air to the Property or any other part of the Building or that the means of access to the Property or any other part of the Building is enjoyed with the consent of any third party.

26.5 If any person takes or threatens to take any action to obstruct the flow of light or air to the Property or obstruct the means of access to the Property, the Tenant shall:

26.5.1 promptly inform the Landlord; and

26.5.2 take all steps (including proceedings) the Landlord reasonably requires to prevent or secure the removal of the obstruction but at the joint cost of the Landlord and the Tenant.

27 BREACH OF REPAIR AND MAINTENANCE OBLIGATIONS

27.1 The Landlord may enter the Property on giving reasonable written notice to inspect its condition and state of repair and may give the Tenant a notice of any breach of any of the tenant covenants in this lease relating to the condition or repair of the Property.

27.2 If the Tenant has not begun any works needed to remedy that breach within two months following that notice (or if works are required as a matter of emergency, then as soon as reasonably practicable) or if the Tenant is not carrying out the works with all due speed, then the Landlord may enter the Property and carry out the works needed.

27.3 The proper costs properly incurred by the Landlord in carrying out any works pursuant to this clause (and any professional fees and any VAT in respect of those costs) shall be a debt due from the Tenant to the Landlord and payable on written demand.

27.4 Any action taken by the Landlord pursuant to this clause shall be without prejudice to the Landlord's other rights, including those under *clause 30*.

28 INDEMNITY

28.1 The Tenant shall keep the Landlord indemnified against all liabilities, expenses, costs (including but not limited to any solicitors' or other professionals' costs and expenses), claims, damages and losses (including but not limited to any diminution

in the value of the Landlord's interest in the Building and loss of amenity of the Building) suffered or incurred by the Landlord arising out of or in connection with any breach of any tenant covenants in this lease, or any act or omission of the Tenant, any undertenant or their respective workers, contractors or agents or any other person on the Property or the Common Parts with the actual or implied authority of any of them.

28.2 The Landlord shall keep the Tenant indemnified against all liabilities expenses, costs (including but not limited to any solicitors' or other professionals' costs and expenses), claims, damages and losses suffered or incurred by the Tenant in connection with or arising out of Environmental Law which are the responsibility of the Landlord in accordance with clause 38 only.

28.3 All indemnities given under this Lease shall be subject to the condition that the parties hereto shall jointly negotiate and deal with any claims against the other and any actions and proceedings resulting therefrom in close consultation with one another and that neither party will settle or compromise any such claim without the prior written consent of the other party (such consent not to be unreasonably withheld or delayed) subject to the rights and powers of any insurers

29 LANDLORD'S COVENANT FOR QUIET ENJOYMENT

The Landlord covenants with the Tenant, that, so long as the Tenant pays the rents reserved by and complies with its obligations in this lease, the Tenant shall have quiet enjoyment of the Property without any interruption by the Landlord or any person claiming under by through under or in trust for the Landlord or by title paramount except as otherwise permitted by this lease.

30 RE-ENTRY AND FORFEITURE

30.1 The Landlord may re-enter the Property (or any part of the Property in the name of the whole) at any time after any of the following occurs:

30.1.1 any rent is unpaid 21 days after becoming payable whether it has been formally demanded or not;

30.1.2 any breach of any condition of, or tenant covenant in, this lease;

30.1.3 an Act of Insolvency.

30.2 If the Landlord re-enters the Property (or any part of the Property in the name of the whole) pursuant to this clause, this lease shall immediately end, but without prejudice to any right or remedy of the Landlord in respect of any breach of covenant by the Tenant or any guarantor.

31 JOINT AND SEVERAL LIABILITY

31.1 Where the Tenant comprises more than one person, those persons shall be jointly and severally liable for the obligations and liabilities of the Tenant arising under this lease. The Landlord may take action against, or release or compromise the liability of, or grant time or other indulgence to, any one of those persons without affecting the liability of any other of them.

31.2 Where a guarantor comprises more than one person, those persons shall be jointly and severally liable for the obligations and liabilities of a guarantor arising under this lease. The Landlord may take action against, or release or compromise the liability of, or grant time or other indulgence to, any one of those persons without affecting the liability of any other of them.

31.3 The obligations of the Tenant and any guarantor arising by virtue of this lease are owed to the Landlord and the obligations of the Landlord are owed to the Tenant.

31.4 The Landlord shall not be liable to the Tenant for any failure of the Landlord to perform any landlord covenant in this lease unless and until the Tenant has given the Landlord notice of the failure and the Landlord has not remedied the failure within a reasonable time of service of that notice.

32 ENTIRE AGREEMENT

32.1 This lease constitutes the whole agreement between the parties and supersedes all previous discussions, correspondence, negotiations, arrangements, understandings and agreements between them relating to its subject matter.

32.2 Nothing in this lease constitutes or shall constitute a representation or warranty that the Property may lawfully be used for any purpose allowed by this lease.

33 NOTICES, CONSENTS AND APPROVALS

33.1 Except where this lease specifically states that a notice need not be in writing, any notice given under or in connection with this lease shall be:

33.1.1 in writing and for the purposes of this clause an email is not in writing; and

33.1.2 given:

33.1.2.1 by hand or by pre-paid first-class post or other next working day delivery service at the party's registered office address (if the party is a company) or (in any other case) at the party's principal place of business.

33.2 If a notice complies with the criteria in *clause 33.1*, whether or not this lease requires that notice to be in writing, it shall be deemed to have been received:

33.2.1 if delivered by hand, at the time the notice is left at the proper address;

33.2.2 if sent by pre-paid first-class post or other next working day delivery service, on the second working day after posting; or

33.3 This clause does not apply to the service of any proceedings or other documents in any legal action or, where applicable, any arbitration or other method of dispute resolution.

33.4 Section 196 of the Law of Property Act 1925 shall otherwise apply to notices given under this lease.

33.5 Where the consent of the Landlord is required under this lease, a consent shall only be valid if it is given by deed, unless:

33.5.1 it is given in writing and signed by the Landlord or a person duly authorised on its behalf; and

33.5.2 it expressly states that the Landlord waives the requirement for a deed in that particular case.

If a waiver is given, it shall not affect the requirement for a deed for any other consent.

33.6 Where the approval of the Landlord is required under this lease, an approval shall only be valid if it is in writing and signed by or on behalf of the Landlord, unless:

33.6.1 the approval is being given in a case of emergency; or

33.6.2 this lease expressly states that the approval need not be in writing.

33.7 If the Landlord gives a consent or approval under this lease, the giving of that consent or approval shall not imply that any consent or approval required from a third party has been obtained, nor shall it obviate the need to obtain any consent or approval from a third party.

34 GOVERNING LAW

This lease and any dispute or claim arising out of or in connection with it or its subject matter or formation (including non-contractual disputes or claims) shall be governed by and construed in accordance with the law of England and Wales.

35 JURISDICTION

Each party irrevocably agrees that the courts of England and Wales shall have exclusive jurisdiction to settle any dispute or claim arising out of or in connection with this lease or its subject matter or formation (including non-contractual disputes or claims).

36 EXCLUSION OF SECTIONS 24-28 OF THE LTA 1954

36.1 The parties confirm that:

36.1.1 the Landlord served a notice on the Tenant, as required by section 38A(3)(a) of the LTA 1954, applying to the tenancy created by this lease, before this lease was entered into;

36.1.2 Mary Sargent who was duly authorised by the Tenant to do so made a statutory declaration dated 22 December, 2017 in accordance with the requirements of section 38A(3)(b) of the LTA 1954; and

36.1.3 there is no agreement for lease to which this lease gives effect.

36.2 The parties agree that the provisions of sections 24 to 28 of the LTA 1954 are excluded in relation to the tenancy created by this lease.

37 CONTRACTS (RIGHTS OF THIRD PARTIES) ACT 1999

A person who is not a party to this lease shall not have any rights under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this lease. This does not affect any right or remedy of a third party which exists, or is available, apart from that Act.

38 AGREEMENT ON ENVIRONMENTAL LIABILITIES

Notwithstanding any other provisions in this Lease, the Landlord and Tenant agree that:

38.1 Any liability under Environmental Law (including, without limitation, any liability under the Contaminated Land Regime) arising in respect of Hazardous Substances in, on, under or emanating from the Property, on or before the date of this Lease, shall be the sole responsibility of the Landlord. Save in relation to the management

of any asbestos at the Property revealed in the asbestos report dated 1 October 2015 which shall be the Tenant's sole responsibility.

38.2 This clause 38 constitutes an agreement on liabilities under the Department for Environment, Food and Rural Affairs' statutory guidance on the Contaminated Land Regime.

38.3 If the Enforcing Authority serves a notice under the Contaminated Land Regime on either party, either party may produce a copy of this Clause 38 to any Enforcing Authority or court for the purposes of determining liability under the Contaminated Land Regime, regardless of any confidentiality agreement that may exist between the parties relating to this Lease or any of its provisions.

38.4 Neither party shall challenge the application of the agreement on liabilities set out in this clause.

39 TENANT'S BREAK RIGHT

39.1 In this clause the following definitions apply:

Break Date: the 22nd day of December 2019

Break Notice: a written notice to terminate this lease on the Break Date and specifying the Break Date and served in accordance with this clause 39

39.2 Subject to clause 39.3, the Tenant may terminate this lease by serving a Break Notice on the Landlord at least six months before the Break Date.

39.3 The Break Notice shall have no effect if at the Break Date:

39.3.1 the Tenant has not paid any part of the Annual Rent, or any VAT in respect of it, which was due to have been paid; or

39.3.2 the whole of the Property is not given back to the Landlord at the end of the term free of any third party occupational rights and free of the occupational right of the Tenant.

39.4 The Break Notice shall be in writing and, for the purposes of this clause, writing does not include facsimile transmission or email.

39.5 The Break Notice shall not purport to terminate the Lease in relation to any part as opposed to the whole of the Property.

39.6 The Break Notice shall be signed by the Tenant or by a person who is expressed to sign on behalf of and with the authority of the Tenant.

39.7 The Break Notice shall be served by delivering it by hand or sending it by pre-paid first-class post or recorded delivery to the Landlord at The Merrifield Centre, Rosemary Lane, Cambridge CB1 3LQ.

39.8 In proving service of the Break Notice it shall be sufficient to prove that delivery by hand was made or that the envelope containing the Break Notice was correctly addressed and posted by pre-paid first-class post or recorded delivery, as the case may be.

39.9 A Break Notice delivered or sent by the Tenant in accordance with clause 39.8 shall be deemed to have been served on the Landlord:

39.9.1 if delivered by hand, on the day of delivery, except that if delivery occurs after noon on a Working Day or on a day that is not a Working Day, then the notice shall be deemed to have been served on the next Working Day;

39.9.2 if sent by pre-paid first-class post or recorded delivery, on the second Working Day after posting (for the avoidance of doubt, not including the date of posting itself).

39.10 The Break Notice shall be delivered or sent by the Tenant so that it shall be deemed to have been served on the Landlord as provided by clause 39.9 not less than six months before the Break Date stated in the Break Notice (and for the avoidance of doubt, the day of deemed receipt shall not be taken into account in calculating the period of six months).

39.11 Neither section 196 of the Law of Property Act 1925, nor section 1139 of the Companies Act 2006 shall apply to a Break Notice, but those sections shall apply to any other notice served pursuant to this clause.

39.12 Time shall be of the essence in respect of all time periods and limits in this clause.

39.13 Subject to clause 39.3, following service of the Break Notice, this Lease shall terminate on the Break Date specified in the Break Notice.

39.14 Termination of this Lease pursuant to this clause shall be without prejudice to any right or remedy of either party in respect of any antecedent breach of the covenants or conditions in this Lease.

39.15 If this Lease terminates in accordance with clause 39.14 then, within 14 days of the Break Date, the Landlord shall refund to the Tenant the proportion of the Annual Rent and any other moneys paid in advance under the Lease, and any VAT paid in respect of it, for the period from and excluding the Break Date up to and excluding

the next Rent Payment Date (in the case of the Annual Rent), or the end of the period in respect of which the moneys have been paid in advance (in respect of other payments),calculated on a daily basis.

40 LANDLORD'S BREAK RIGHT

40.1 In this clause the following definitions apply:

Break Date: the 22nd day of December 2019

Break Notice: a written notice to terminate this lease on the Break Date and specifying the Break Date and served in accordance with this clause 40

40.2 Subject to clause 40.3, the Landlord may terminate this lease by serving a Break Notice on the Tenant at least nine months before the Break Date.

40.3 The Break Notice shall have no effect if at the Break Date:

40.3.1 the Break Notice does not comply with the terms of this clause; or

40.3.2 the Break Notice is served otherwise in accordance with this clause.

40.4 The Break Notice shall be in writing and, for the purposes of this clause, writing does not include facsimile transmission or email.

40.5 The Break Notice shall not purport to terminate the Lease in relation to any part as opposed to the whole of the Property.

40.6 The Break Notice shall be signed by the Landlord or by a person who is expressed to sign on behalf of and with the authority of the Landlord.

40.7 The Break Notice shall be served by delivering it by hand or sending it by pre-paid first-class post or recorded delivery to the Tenant at The Merrifield Centre, Rosemary Lane, Cambridge CB1 3LQ.

40.8 In proving service of the Break Notice it shall be sufficient to prove that delivery by hand was made or that the envelope containing the Break Notice was correctly addressed and posted by pre-paid first-class post or recorded delivery, as the case may be.

40.9 A Break Notice delivered or sent by the Landlord in accordance with clause 40.8 shall be deemed to have been served on the Tenant:

40.9.1 if delivered by hand, on the day of delivery, except that if delivery occurs after noon on a Working Day or on a day that is not a Working Day, then the notice shall be deemed to have been served on the next Working Day;

40.9.2 if sent by pre-paid first-class post or recorded delivery, on the second Working Day after posting (for the avoidance of doubt, not including the date of posting itself).

40.10 The Break Notice shall be delivered or sent by the Landlord so that it shall be deemed to have been served on the Tenant as provided by clause 40.9 not less than nine months before the Break Date stated in the Break Notice (and for the avoidance of doubt, the day of deemed receipt shall not be taken into account in calculating the period of nine months).

40.11 Neither section 196 of the Law of Property Act 1925, nor section 1139 of the Companies Act 2006 shall apply to a Break Notice, but those sections shall apply to any other notice served pursuant to this clause.

40.12 Time shall be of the essence in respect of all time periods and limits in this clause.

40.13 Subject to clause 40.3, following service of the Break Notice, this Lease shall terminate on the Break Date specified in the Break Notice.

40.14 Termination of this Lease pursuant to this clause shall be without prejudice to any right or remedy of either party in respect of any antecedent breach of the covenants or conditions in this Lease.

40.15 If this Lease terminates in accordance with clause 40.14 then, within 14 days of the Break Date, the Landlord shall refund to the Tenant the proportion of the Annual Rent and any other moneys paid in advance under the Lease, and any VAT paid in respect of it, for the period from and excluding the Break Date up to and excluding the next Rent Payment Date (in the case of the Annual Rent), or the end of the period in respect of which the moneys have been paid in advance (in respect of other payments),calculated on a daily basis.

SCHEDULE 1

LANDLORD WORKS

In this Schedule the following words will have the following meanings:

"Cost" means all costs and expenses connected with the design, carrying out and completion of the Landlord's Works.

"Duty of Care Letter" means a signed duty of care letter to be addressed to the Tenant by the Independent Measurers in a form agreed by the parties acting reasonably.

"Independent Measurers" means such reputable measuring surveyors as the Landlord may choose to appoint.

"Internal Area" means the net internal area of the Property as determined by the Independent Measurers having measured the Property in square feet in accordance with the Code of Measuring Practice Sixth Edition RICS 2007

"Method Statement" means a statement outlining the way in which and the times at which the Works are to be carried out and completed.

"Landlord 's Works" means any works of division necessary to render the Property self-contained and capable of beneficial use and occupation in accordance with the terms of the Lease.

"Schedule" means the revised schedule of condition as referred to at clause 1.1.31.

1. **LANDLORD'S WORKS**

1.1 The Landlord and Tenant acknowledge that the Landlord's Works may be needed to the Property.

1.2 The Landlord and the Tenant will attempt to agree (acting reasonably) as soon as reasonably practicable following the date hereof on what, if anything, constitutes the Landlord's Works and once agreement has been reached and on the basis of the

Landlord's Works are agreed to be necessary the parties will agree on the Cost and the Method Statement (acting reasonably) and the Landlord will then carry out the Landlord's Works (at the joint costs of the parties).

1.3 If the Landlord and the Tenant cannot so agree in accordance with paragraph 1.2 then any issues of disagreement will be referred to an expert for a decision in accordance with paragraph 4.

1.4 If and to the extent the Expert decides that Landlord's Works are necessary then the Landlord will promptly carry out the Landlord's Works (at the joint cost of the parties).

2. CALCULATION OF ANNUAL RENT

2.1 The Landlord and Tenant agree and acknowledge that the Annual Rent in the Lease has been calculated as follows:

2.1.1 7,246 square feet at £25 per square foot ("Rate") in respect of the area to be exclusively occupied by the Tenant;

2.1.2 1,829 square feet at £12.50 per square foot ("Rate") in respect of the common areas (the " common areas") in the Building (shown shaded blue on Plan 1)

to give a total figure of £204,012.50 (exclusive of VAT).

2.2 Promptly following the completion of the Landlord's Works the Landlord will engage the Independent Measurers at the joint cost of the Landlord and Tenant to measure the Property and the common areas.

2.3 The Landlord will procure that the Independent Measurers issue the Duty of Care Letter to the Tenant promptly after completion of the measurement of the Property and the common areas by the Independent Measurers at the joint cost of the Landlord and Tenant.

2.4 If the product of the Independent Measurers' measured floor area of the Property and the common areas (after completion of the Works) and the appropriate Rate is:

2.4.1 equal to or less than the figure for the Annual Rent which appears in the Lease the Landlord will prepare a memorandum acknowledging that fact (in a form to be approved by the Tenant acting reasonably) and both the Landlord and the Tenant will sign and exchange one copy of the memorandum and attach it to the Lease and Counterpart and from thenceforward the Annual Rent shall be the figure in the said memorandum;

2.4.2 greater by 2.5% than the figure for the Annual Rent which appears in the Lease the Landlord will prepare a memorandum acknowledging that fact (in a form to be approved by the Tenant acting reasonably) and both the Landlord and the Tenant will sign and exchange one copy of the memorandum and attach it to the Lease and Counterpart and from thenceforward the Annual Rent shall be the figure in the said memorandum.

2.5 In the circumstances envisaged by paragraph 2.4.1 the Landlord will promptly refund to the Tenant any Annual Rent which has been overpaid by the Tenant since the commencement of the Lease.

2.6 In the circumstances envisaged by paragraph 2.4.2 the Tenant will promptly pay to the Landlord the balance of any Annual Rent which has been underpaid by the Tenant since the commencement of the Lease.

3. **SCHEDULE OF CONDITION**

3.1 Promptly on completion of the Landlord's Works in accordance with paragraph 1, the Landlord will commission the Schedule at the joint cost of the Landlord and Tenant. If the Landlord and the Tenant cannot agree on the Schedule then the issue will be referred to an expert for a decision in accordance with paragraph 4 and the Landlord and the Tenant agree that (if the surveyor will accept the appointment) the identity of the said expert shall be the same as that of any Expert appointed under paragraph 4.

3.2 On receipt of the Expert's decision as to the Schedule, the Landlord will complete the Schedule promptly and in any event within one month from the date of the Expert's decision on the Schedule and the Landlord and the Tenant will each sign and then exchange one copy of the Schedule by way of confirmation that it is the Schedule referred to in the Lease.

4. **EXPERT DETERMINATION**

4.1 In this paragraph 4 of Schedule 1, where any issue is required to be dealt with by, or submitted for the determination of, an independent expert, the following provisions of this paragraph 4 are to apply and in case of conflict with other provisions specifically relating to expert determination elsewhere in this Lease the provisions in this Schedule 1 are to prevail to the extent of the conflict.

4.2 In this paragraph 4 the Landlord and the Tenant are referred together as the "parties"

4.3 The expert is to be appointed by the parties jointly (acting reasonably), or if they cannot or do not agree on the appointment, appointed by whichever of the following is appropriate on application by either party:

4.3.1 the president from time to time of the Royal Institution of Chartered Surveyors; or

4.3.2 the president from time to time of the Institute of Chartered Accountants in England and Wales,

4.4 or in either case the duly appointed deputy of the president, or other person authorised by him to make appointments on his behalf.

4.5 The person so appointed is to

4.5.1 act as an expert, and not as an arbitrator; and

4.5.2 must afford the parties the opportunity within such a reasonable time limit as he may stipulate to make representations to him (accompanied by professional rental valuations, reports or other appropriate evidence in the relevant circumstances) and permit each party to make submissions on the representations of the other.

4.6 Neither party may without the consent of the other disclose to the expert correspondence or other evidence to which the privilege of non-production ("without prejudice") properly attaches.

4.7 The fees and expenses of the expert, including the cost of his nomination, are to be borne as the expert may direct (but in the absence of such a direction, by the parties in equal shares), but (unless they otherwise agree) the parties shall bear their own costs with respect to the determination of the issue by the expert.

4.8 One party may pay the costs required to be borne by another party if they remain unpaid for more than 15 Working Days after they become due and then recover these and any incidental expenses incurred from the other party on demand.

4.9 If the expert refuses to act, becomes incapable of acting or dies, either party may request the appointment of another expert in his stead under paragraph 4.3.

4.10 The determination of the independent expert, except in case of manifest error, is to be binding on the parties.

THIS Lease has been entered into on the date stated at the beginning of it.

Executed as a deed by
MERRIFIELD CENTRE LTD

acting by a director,
in the presence of: ../s/ David Williams……

Witness signature:

Witness name: /s/ Sarah Fordham……..

Witness Address: …Sarah Fordham……..

……

……

Witness occupation: ……

…Of fice Manager……..……...

Executed as a deed by

DISCUVA LIMITED

…/s/ Ernesto Reggiani……

acting by

a director, in the presence of:

Witness signature:

/s/ Sarah Fordham……..

Witness name:

Sarah Fordham…… …….

Witness Address:

……

……

……

Witness occupation:

Officer Manager……..

Exhibit 4.32

Confidential Materials omitted and filed separately with the
Securities and Exchange Commission. Double asterisks denote omissions.

DATED 16 OCTOBER 2017

EQUITY AND REVENUE SHARING AGREEMENT (Seeding Drug Discovery Initiative and Translation Award)

BETWEEN

(1) SUMMIT (OXFORD) LIMITED

and

(2) THE WELLCOME TRUST LIMITED

THIS AGREEMENT is made on 16 October 2017

BETWEEN:

(1) **THE WELLCOME TRUST LIMITED**, a company registered in England & Wales with company no. 2711000 with registered address at 215 Euston Rd London NW1 2BE UK, as Trustee of the Wellcome Trust, a charity registered in England under no. 210183 (the **"Trust"**); and

(2) **SUMMIT (OXFORD) LIMITED**, a limited company registered in England and Wales under number 04636431 whose registered office is at 136A Eastern Avenue, Milton Park, Abingdon, Oxfordshire OX14 4SB (the **"Company"**).

WHEREAS:

(A) Pursuant to a funding agreement between the Trust and the Company's holding company, Summit Therapeutics PLC (formerly Summit Corporation PLC and hereinafter **"Summit")** dated 30 October 2009, the Trust made a programme-related investment by way of an award of two million, two hundred and eighty eight thousand, two hundred and twenty one pounds sterling (£2,288,221) to Summit to progress the development of a novel class of antibiotics for the targeted treatment of *Clostridium difficile* infection in consideration of a share of any resulting revenue (the "**SDD Award**").

(B) The Trust made a Translation Award (award no. 099444/Z/12/Z) to Summit to support a first-in-human Phase I and Phase II clinical trial for the novel *Clostridium difficile* antibiotic SMT19969 (subsequently given the International Non-proprietary Name "ridinilazole") in consideration of a share of any resulting revenue (the "**TA Award**").

(C) The Company is the wholly owned trading subsidiary of Summit and the entity that will be Exploiting the Exploitation IPRs (as defined in the TA Funding Agreement dated 19 October 2012). Summit has assigned the benefit and burden of the TA Funding Agreement (as defined below) to the Company and the Company acknowledges to the Trust that it is bound by the terms of the TA Funding Agreement.

(D) To facilitate management and commercialisation of the technology arising under the SDD Award and the TA Award, the Parties have agreed that the Exploitation IPRs shall be exploited in accordance with the terms of this Agreement.

IT IS HEREBY AGREED as follows:

1. **INTERPRETATION**

1.1 Capitalised terms in this Agreement shall be interpreted in accordance with the definitions as set out in the TA Funding Agreement or above. For ease, important definitions from the TA Funding Agreement are set forth in Schedule 3 Where a capitalised term is defined in both this Agreement and the TA Funding Agreement, the definition in this Agreement shall apply.

1.2 In this Agreement, unless the context otherwise requires:

1.3	"**Accounting Standard**"	means IFRS (International Financial Reporting Standards) as generally and consistently applied throughout each Party's organisation;
1.4	**"BARDA"**	means the Biomedical Advanced Research and Development Authority;
1.5	**"Effective Date**"	means 16 October, 2017;
1.6	**"Exploitation Terms"**	means the terms for the exploitation of the Exploitation IPR as set out in Schedule 1 to this Agreement;
1.7	**"First Commercial Sale"**	means, with respect to RDZ in a country, the first sale for end use or consumption of RDZ in such country after all regulatory approvals legally required for such sale have been granted by the regulatory authority of such country;
1.8	**"Pre-Commercial Payments"**	means all cumulative Net Revenue, which for clarity excludes any grant funding or any development funding received by the Company from a Third Party licensee (or sub-licensee) prior to the First Commercial Sale of RDZ
1.9	**"Quarterly Statement"**	has the meaning set out in Clause 4.1;
1.10	"**RDZ**"	means ridinilazole (SMT19969);
1.11	"**SDD Award**"	has the meaning set out in Recital (A);
1.12	"**TA Funding Agreement**"	means the Translation Award Funding Agreement between the Parties dated 19 October 2012; and
1.13	"**TA Award**"	has the meaning set out in Recital (B).

1.14 References in this Agreement to any statutory provisions shall be construed as references to those provisions as respectively amended consolidated or re-enacted (whether before or after the Effective Date) from time to time and shall include any provisions of which they are consolidations or re-enactments (whether with or without amendment).

1.15 The Schedules and Recitals form part of this Agreement and any reference to this Agreement shall include the Schedules and Recitals.

1.16 In this Agreement:

(a) the masculine gender shall include the feminine and neuter and the singular number shall include the plural and vice versa;

(b) references to persons shall include bodies corporate, unincorporated associations, partnerships and individuals; and

(c) except where the contrary is stated, any reference in this Agreement to a Clause or Schedule is to a Clause of or Schedule to this Agreement, and any reference within a Clause or Schedule to a sub-Clause, paragraph or other sub-division is a reference to such sub-Clause, paragraph or other sub-division so numbered or lettered in that Clause or Schedule.

1.17 The headings in this Agreement are inserted for convenience only and shall not affect the construction of the provision to which they relate.

1.18 References to the winding-up of a person include a company administration, dissolution, liquidation, bankruptcy, of such person and an equivalent or analogous procedure under the law of any jurisdiction in which that person is incorporated, domiciled or resident or carries on business or has assets.

1.19 Any reference to books, records or other information includes books, records or other information in any format or medium including paper, electronically stored data, video or audio recordings and microfilm.

1.20 Any phrase introduced by the terms “including”, “include”, “in particular” or any similar expression shall be construed as illustrative and shall not limit the sense of the words preceding those terms.

1.21 Reference to any statute, statutory instrument, regulation, by law or other requirement of English law and to any English legal term for any actions, remedy, method of judicial proceeding, legal document, legal status, court, official or any legal concept or doctrine shall, in respect of any jurisdiction other than England, be deemed to include that which most nearly approximates in that jurisdiction to the relevant English term.

2 REVENUE SHARING ARRANGEMENTS

2.1 The Trust and the Company shall share cumulative Net Revenue received in respect of Exploitation of the Exploitation IPRs in accordance with the Exploitation Terms. The Parties agree that the Exploitation IPRs are those pertaining to RDZ and that RDZ is the Project Compound and the Licensed Product as defined in the TA Funding Agreement.

2.2 The Parties further agree that any development funding or grant funding received from BARDA or other Third Parties, including licensees, shall not be classed as Revenue.

2.3 For the avoidance of doubt, the Company's obligation to share cumulative Net Revenue received from Third Parties prior to the First Commercial Sale of RDZ shall be expressly limited to a one-time milestone payment as set out in Schedule 1 payable only following the First Commercial Sale of RDZ.

2.4 In the event that the Company receives any equity as part payment for a licence granted where a Third Party commercialises RDZ, then the Parties will discuss in good faith to determine an equitable share of such equity or a cash equivalent for the Trust.

2.5 In the event of a sale or assignment by the Company to a Third Party of the Exploitation IPR and/or the assets pertaining to RDZ, the Trust shall be entitled to its share of the net proceeds of such sale received by the Company as Net Revenue (including any deferred consideration or ongoing revenue stream to the Company in respect of the Exploitation IPR or assets pertaining to RDZ) and thereafter this Agreement shall terminate so that the share of Net Revenue set forth in Schedule 1 is not payable to the Trust by the acquiring Third Party.

2.6 In the event of (i) a sale of the shares of the Company or (ii) a change of control it is the expectation of the Parties that the obligations of the Company with respect to revenue sharing under this Agreement remain binding on the Company despite the change in ownership of the shares of the Company. For clarity the Trust shall not be entitled to a share of the net proceeds received by the shareholders of the Company on a sale of the shares of the Company unless the Trust is a shareholder in the Company at the relevant time.

3 RECOVERY OF COSTS

3.1 Where Direct Costs incurred/allowed in a given accounting year exceed the Revenue from Exploitation of Exploitation IPRs for that year, then such excess costs shall be carried forward and offset against future Revenue until such time as they have been fully recovered.

4 ACCOUNTING STATEMENTS AND PAYMENTS

4.1 Within [**] days of the end of each Calendar Quarter, the Company shall deliver a statement to the Trust setting out for the relevant Calendar Quarter:

(a) Revenue and Net Revenue received;

(b) deductible Direct Costs and taxes;

(c) sales of Licensed Products made by any member of the Company's Group or any Third Party;

(d) the share of Net Revenue due to the Trust pursuant to Clause 2.1 above; and

(e) cumulative Revenue, cumulative Net Revenue and cumulative Direct Costs;

(the **"Quarterly Statement"**).

4.2 The Trust shall deliver to the Company an invoice for the amount due to it as set out in the Quarterly Statement in pounds sterling.

4.3 The share of Net Revenue due to the Trust and any other amount invoiced shall be payable to the Trust within [**] days of receipt of the invoice.

4.4 All payments of Net Revenue made by the Company to the Trust or by the Trust to the Company as the case may be under this Agreement shall be made in pounds sterling. Payment shall be made by electronic wire transfer of immediately available funds directly to the account of the relevant Party designated below or to any other account which the relevant Party may specify by written notice in accordance with Clause 6.

4.5 Bank Account for the Trust:

Account Name:	[**]
Account No.:	[**]
Bank:	[**]
Sort code:	[**]
SWIFT code:	[**]
Branch:	[**]

4.6 Written confirmation of such transfer shall be sent by the Party sending the funds to the individual at the Party receiving the funds at the address provided in Clause 6 below.

4.7 Where any Revenue and Direct Costs in respect of the Exploitation IPRs is received or made in a currency other than sterling, the sterling equivalent of the sum shall be:

(a) where such sum has been converted into sterling prior to preparation of the Quarterly Statement, the actual sterling sum on conversion; or

(b) where such conversion has not taken place prior to preparation of the Quarterly Statement, calculated using the average of the buying and selling rates quoted by [**] at the date the sum is received or paid by the Exploiting Party as applicable, or at such other date as the paying Party may reasonably specify having regard to the circumstances.

4.8 If the paying Party fails to pay any amount payable by it under this Agreement on the relevant due date, interest shall accrue on the overdue amount from the due date up to the date of

actual payment (both before and after judgement) at the rate equivalent to [**] percent ([**]%) per annum above the three month sterling LIBOR from time to time.

4.9 The VAT registration details for the Company and the Trust:

(a) VAT registration details for the Company: 876331407

(b) VAT registration details for the Trust: 744495211

4.10 All payments shall be made net of any withholding or similar tax payments required by law.

4.11 The Company shall keep such records as are reasonably necessary to enable a proper assessment to be made of the following for at least [**] years:

(a) the sums payable under this Agreement;

(b) Revenue and Net Revenue received;

(c) deductible Direct Costs and taxes on the Exploitation IPRs;

(d) sales of Licensed Products made by any member of the Company's Group or any Third Party; and

(e) cumulative Revenue, cumulative Net Revenue and cumulative Direct Costs;

(the "**Records**").

4.12 The Company shall allow an independent accountant duly authorised on behalf of and at the expense of the Trust to inspect the Records by prior written appointment during normal business hours and not more than [**]. Such accountant shall not disclose to any Third Party or use for any unauthorised purpose any information not relevant to the verification of the sums due to the Trust that is obtained as a result of any such inspection. The Company shall procure that these inspection and audit rights extend to the records of the Company's Group and any sub-licensees thereof.

4.13 The Trust shall pay for the audit as well as its own legal expenses associated with enforcing its rights with respect to any payments due under this Agreement except where the audit reveals a discrepancy of [**] percent ([**]%) or more of any sums paid or payable, in which case the costs of the audit shall be paid by the Company.

5 DURATION AND TERMINATION

5.1 This Agreement shall commence on the Effective Date and shall continue for whichever is the longer of:

(a) the last to expire of the Project Patents;

(b) the expiry of any agreement entered into by Company with a Third Party for the Exploitation of the Project IPRs; or

(c) the expiry of any payment obligation owed to the Trust relating to the Exploitation of the Project IPRs.

5.2 Either Party shall have the right to terminate this Agreement forthwith at any time ("**Terminating Party**") upon giving written notice of termination to the other Party ("**Defaulting Party**"), upon the occurrence of any of the following events:

(a) the Defaulting Party commits a breach of a material obligation set out in this Agreement which is not capable of remedy;

(b) the Defaulting Party commits a breach of a material obligation set out in this Agreement which is capable of remedy but has not been remedied within [**] days of the receipt by it of a notice from the other Party identifying the breach and requiring its remedy;

(c) the Defaulting Party is unable or admits inability to pay its debts as they fall due, suspends making payments on any of its debts or, by reason of actual or anticipated financial difficulties commences negotiations with one or more of its creditors with a view to rescheduling any of its indebtedness;

(d) a proposal is made or a nominee or supervisor is appointed for a composition in satisfaction of the debts of the Defaulting Party or a scheme or voluntary arrangement of its affairs within the meaning of the relevant bankruptcy or insolvency laws, or the Defaulting Party enters into any composition or voluntary arrangement for the benefit of its creditors, or proceedings are commenced in relation to the Defaulting Party under any law, regulation or procedure relating to the re-construction, deferment or re-adjustment of all or substantially all of the Defaulting Party's debts;

(e) the Defaulting Party takes any action, or any legal proceedings are started whether by a Third Party or not, for the purpose of the winding up or dissolution of the Defaulting Party, other than for a solvent reconstruction or amalgamation;

(f) the appointment of a liquidator, trustee, receiver, administrative receiver, receiver and manager, interim receiver custodian, sequestrator, administrator or similar officer, in respect of all or a substantial part of the assets of the Defaulting Party;

(g) an effective resolution being passed for the winding-up or entering into administration (whether out of court or otherwise) of the Defaulting Party;

(h) a distress, execution or other legal process being levied against all or substantially all of the assets of the Defaulting Party, and not being discharged or paid out in full within [**] Business Days of the commencement of each process;

(i) the occurrence in respect of the Defaulting Party of any event in any jurisdiction to which it is subject having an effect similar to that of any of the events referred to in Clauses 5.2(c)to 5.2(h)above.

6 NOTICES

6.1 Any notice to be given pursuant to this Agreement shall be in writing in the English language and shall be delivered by overnight courier, by registered, recorded delivery or certified mail (postage prepaid) or by email confirmed by registered, recorded delivery or certified mail (postage prepaid) to the address or email address of the recipient Party set out below or such other address or email address as a Party may from time to time designate to the other Party.

6.2 **Address of Company**

Summit (Oxford) Limited

136A, Eastern Avenue, Milton Park

Abingdon

Oxfordshire

OX14 4SB

For the attention of: The Company Secretary

Email: [**]

6.3 **Address of the Trust**

Innovations Division

The Wellcome Trust Limited

215 Euston Road

London, NW1 2BE

For the attention of: The Operations Manager

With a copy to [**]

Email: [**]

6.4 Any notice given pursuant to Clause 6.1 shall be deemed to have been received in the case of delivery by courier or by certified mail, on the day of receipt, provided receipt occurs on a Business Day or otherwise on the next following Business Day.

7 GENERAL

7.1 As the Company is taking RDZ through Phase III trials, the Parties hereby agree that Clause 16 (Unexploited IPRs), shall be deleted from the TA Funding Agreement with effect from the Effective Date. Furthermore, the Parties have agreed that Clauses 5.2, 5.3, 12, 13, 14.3, 17 and 18 shall be deleted from the TA Funding Agreement with effect from the Effective Date and that Clauses 2, 3, 4, 6, 10, 11, 14.1, 14.3, 14.5, 14.7, 14.8, 14.9, 14.10, 14.11, 15 and 19 are, from the Effective Date, no longer applicable as they relate to the performance of the Project which has now been completed.

7.2 This Agreement is in addition to the TA Funding Agreement (as may be amended from time to time), which, subject to Clause 7.1 above, will continue to apply unless terminated on its terms. Should there be any conflict between this Agreement and the TA Funding Agreement, then this Agreement shall prevail. For clarity, Clauses 7, 8, 9, 20, 23, 24, 28, 30.1, 30.3 and 30.4 from the TA Funding Agreement are still applicable and shall be imported into this Agreement by operation of this Clause.

7.3 Nothing in this Agreement shall give rise to any partnership or the relationship of principal and agent between the Trust and the Company.

7.4 All notices and communications shall be in writing and addressed to the Parties at the relevant address stated at the beginning of this Agreement (or such other address as may be notified from time to time).

7.5 None of the rights or obligations under this Agreement may be assigned or transferred without the prior written consent of the other Party. This Agreement shall be binding on and enure for the benefit of the successors in title of the Parties.

7.6 No waiver of any breach or default under this Agreement or any of the terms herein shall be effective unless such waiver is in writing and has been signed by the Parties. No waiver of any such breach or default shall constitute a waiver of any other or subsequent breach or default.

7.7 If any provisions of this Agreement are held to be invalid, illegal or unenforceable (in whole or in part) such provisions or parts shall to that extent be deemed not to form part of this Agreement but the remainder of this Agreement shall continue in full force and effect.

7.8 Each Party shall do and execute or arrange for the doing or executing of all acts, documents and things as may be necessary in order to implement this Agreement.

7.9 This Agreement (and any dispute, controversy, proceedings or claim of whatever nature arising out of this Agreement or its formation) shall be governed by and construed in accordance with the laws of England. The Parties irrevocably submit to the exclusive jurisdiction of the Courts of England.

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IN WITNESS whereof the Parties or their duly authorised representatives have executed this Agreement on the date hereinbefore written.

Signed for and on behalf of

SUMMIT (OXFORD) LIMITED

by its duly authorised representative:
Signature: /s/ Glyn Edwards
Name: Glyn Edwards
Title: Director

Signed for and on behalf of

THE WELLCOME TRUST LIMITED as trustee of the Wellcome Trust

by its duly authorised representative:
Signature: /s/ Iain Ward
Name: Iain Ward
Title: Associate General Counsel Innovations

SCHEDULE 1 – EXPLOITATION TERMS

Where a Third Party commercialises RDZ:

a. a share of [**] per cent ([**]%) of Net Revenues received by the Company from sales by the Third Party licensee of RDZ.;
b. a one-time milestone payment to be made following the First Commercial Sale of RDZ of [**] per cent ([**]%) of cumulative Pre-Commercial Payments received by the Company from Licensees. Hence, should the Company receive cumulative Pre-Commercial Payments of [**] US Dollars ($[**]) prior to First Commercial Sale of RDZ, the one-time milestone payment to be paid to the Trust following the First Commercial Sale of RDZ shall be [**] US dollars ($[**]); and
c. a one-time milestone of [**] pounds Sterling (£[**]) when aggregate Net Revenues exceed [**] pounds Sterling (£[**]).

Where Summit commercialises RDZ:

a. a share of [**] percent ([**]%) of Net Revenues and
b. a one-time milestone payment of [**] pounds sterling (£[**]) when aggregate Net Revenues exceed [**] pounds sterling (£[**]).

SCHEDULE 2 TO THE REVENUE SHARING AGREEMENT

COST OF GOODS

For the purpose of calculating the cost of the Licensed Product (API bulk drug substance or finished drug product meaning finished product formulation of a Licensed Product containing API bulk drug substance, filled into unit packages for final labelling and packaging, and as finally labelled and packaged in a form ready for administration) a standard costing approach is to be applied. The following types of expenses shall be included:

(i) direct materials (including shipping);

(ii) direct labour;

(iii) indirect manufacturing costs;

(iv) quality assurance, and

(v) certain variances as set out in 5 below, but not including other production costs, as identified below.

Each of these categories of expenses are further specified below.

In any event, the Cost of Goods shall include all cost elements appropriate under the **Accounting Standard**.

To the extent that such API bulk drugs substance, finished drug product is manufactured by a Third Party manufacturer, the actual fees paid by a Party or any of its Affiliates to the Third Party for the manufacture, supply, packaging, labelling and shipping of such API bulk drug substance, finished drug product or placebo, and any reasonable out-of-pocket costs and direct labor costs actually incurred by such Party or any of its Affiliates in managing or overseeing the Third Party relationship, shall all be determined in accordance with the books and records of the applicable Party or its Affiliates maintained in accordance with the Accounting Standard.

1. Direct Materials

Materials used in the manufacturing process that are traced directly to the completed Licensed Product, such as:

- Inert raw materials or excipients
- Active substances/ingredients
- Packaging components such as bottles, caps, labels, etc.

2. Direct Labour

The cost of employees engaged in production activities that are directly identifiable with Licensed Product costs. This shall exclude supervision, which is included in indirect labour, and production support activities such as inspection, plant and equipment maintenance labour, and material handling personnel.

Direct labour cost includes:

- Base pay, overtime, vacation and holidays, illness, personal time with pay and shift differential.
- Cost of employee fringe benefits such as health and life insurance, payroll taxes, welfare, pension and profit sharing.

3. Indirect Manufacturing Costs

Costs for plant and equipment are to be applied to standard costs taking normal capacity utilization as a reference.

Start-up costs including reasonable costs for failed validation batches

Costs which are ultimately allocated to product based on standard direct labour hours of the operating departments. These costs include:

- Indirect Production Labour - salaries of employees engaged in production activities who are not classified as direct labour, including supervision, clerical, etc.
- Costs of Direct Labour - employees not utilized for the manufacturing of product such as training and general duties.
- Indirect Materials - supplies and chemicals which are used in the manufacturing process and are not assigned to specific products but are included in manufacturing overhead costs. Includes supplies for which direct assignment to products is not practical.
- Utilities - expenses incurred for fuel, electricity and water in providing power for production and other plant equipment and waste disposal.
- Maintenance and Repairs - amount of expense incurred in-house or purchased to provide services for plant maintenance and repairs of facilities and equipment.
- Other Services - purchased outside services and rentals such as the cost of security, ground maintenance, etc.
- Depreciation - of plant and equipment utilizing the straight-line method of calculation.
- Insurance - cost of comprehensive and other insurance necessary for the safeguard of manufacturing plant and equipment.
- Taxes - expense incurred for taxes on real and personal property (manufacturing site, buildings and the fixed assets of equipment, furniture and fixtures, etc.) If manufacturing site includes other operations (marketing, R&D, etc.), taxes are allocated to manufacturing on the basis of total real and personal property.
- Cost of manufacturing, service departments - such as:

  (where applicable)

- Packaging Engineering
- Manufacturing Maintenance
- Industrial Engineering
- Receiving and Warehousing
- Purchasing and Accounting
- Production Scheduling
- Inventory Management
- Plant Materials Management
- Central Weigh
- Manufacturing Administration

- Allocated costs of services provided to manufacturing including: (where applicable)
  - Cafeteria
  - Personnel Operations
  - Health and Safety Services
  - Division Engineering and Operations Services
  - Plant Services (housekeeping)
  - Manufacturing Information Systems
  - Plant Power
  - Office of V.P. Manufacturing

  Various bases are used for allocating these costs to manufacturing operating departments including headcount, square feet, metered utilities use, estimated services rendered, EDP computer hours, etc.

4. Quality Assurance Costs

Direct labour and indirect costs for Quality Assurance departments testing and approving materials used in manufacturing and completed manufacturing batches and finished products. This includes all manufacturing in-process testing and testing of finished materials. Excluded from product costs are Quality Assurance costs related to research and development, stability testing, and other costs customarily excluded from such Quality Assurance costs.

5. Variance Costs

- Standard Cost of Goods include cost elements which are set at so-called standard costs. They serve as a norm on how much typically a product costs. Deviations from such standard costs are captured in variances.
- Inventory re/devaluation shall mean the gain or loss as a result of the inventory value adjustment due to changes in the standard costs.
- Non-product related production costs shall contain Technical Operations Corporate Headquarter overhead costs, non-product allocated QA costs, validation costs, directly expensed IT project costs, and other costs that cannot be attributed to specific products.
- Warehousing & Distribution costs are costs related to warehousing and distribution activities for Finished Goods to be shipped to 3rd parties.
- Write-offs are captured for the destruction of products that cannot be used anymore due to expiration of shelf-life, spoilage in the production process, and transportation mishaps.
- Third Party royalties for manufacturing or marketing, and/or supply royalties paid to third parties
    - Product liability and/or business interruption insurance expenses, and
    - Patent maintenance costs

The following expenses are not included in production costs:

a) Inventory Carrying Costs

b) Regulatory Affairs Costs

c) Significant idle capacity is eliminated from factory overhead and product cost.

d) Intracompany profit.

SCHEDULE 3

KEY DEFINITIONS FROM THE TA FUNDING AGREEMENT

"Direct Costs" means any costs and expenses incurred or allowed from time to time in accordance with this Agreement by or for the account of the Trust or the Company (as appropriate) in prosecuting, maintaining, enforcing or defending any of the Exploitation IPRs, marketing the Exploitation IPRs and negotiating, concluding or enforcing agreements for the licensing or other Exploitation of the Exploitation IPRs (including by way of acquisition of equity in a company), including without limitation:

(a) all reasonable legal, accounting and other professional fees and charges;

(b) official filing, prosecution, maintenance and renewal fees;

(c) travelling and other out-of-pocket expenditure; and

(d) Cost of Goods;

"Net Revenue" means Revenue less:

(a) any Direct Costs;

(b) any applicable VAT on Revenue and/or Direct Costs;

(c) amounts repaid or credited and allowances including cash, credit or free goods allowances, given by reason of billing errors, discounts, actually allowed or paid or accrued;

(d) amounts refunded or credited for Licensed Products which were rejected or damaged or recalled or by reason of reasonable purchase chargebacks or rebates;

(e) freight, postage and shipping insurance invoiced to the Third Party;

(f) taxes, tariffs, customs duties and surcharges and other governmental charges incurred in connection with the sale, exportation or importation of Licensed Products; and

(g) government mandated and other reasonable rebates (such as those in respect of any state or federal Medicare or Medicaid or similar programs).

The transfer of Licensed Products between the Company and any of its Affiliates shall not be considered a sale for the purposes of calculating Revenue. In such cases, Revenue shall be determined on the gross invoiced price levied by the Affiliate on a Third Party, less the aforementioned deductions to the extent they are allowed, paid or accrued.

Any Licensed Product which is transferred by the Company or its Affiliates to a Third Party on less than arm’s length terms shall be deemed for the purposes of calculation of Revenue to be a sale at the list price of Licensed Product provided always that the use of Licensed Product in clinical trials shall not give rise to any deemed sale under this definition.

Transfers or dispositions of Licensed Product free of charge and in line with normal industry practice (a) for charitable purposes; (b) for non-commercial manufacturing purposes; (c) as free promotional samples of Licensed Product; or (d) for regulatory or governmental purposes shall not in each case be deemed "sales" for the purposes of calculating Revenue;

"Revenue"	means the pre-tax gross receipts actually received by the Company and its Affiliates from time to time in respect of the Exploitation of Exploitation Project IPRs and/or Licensed Products, whether by grant of a licence or an option thereto in respect of any Exploitation IPRs and/or Licensed Products, the assignment of the Exploitation IPR or otherwise, including, without limitation, gross receipts representing sales of the Licensed Products, cash sums, other monetary sums, royalties, licences fees, signature fees, lump sum payments or otherwise and/or any other consideration actually received by the Company and/or its Affiliates such as the provision of premises, equipment or cross licences. Where any consideration comprising Revenue is received other than in money the value of the consideration shall be determined by reference to the Fair Value of the goods, services, licence or other benefit to the Exploiting Party as at the date of receipt by the Company and/or its Affiliates. The Company shall pay to the Trust an amount in cash as required to satisfy the Trust's share of the Fair Value at the time it converts the non-cash consideration into cash. If the Parties are unable to agree on the Fair Value such dispute shall be referred to an expert under Clause 20 of the Funding Agreement. For the avoidance of doubt, Revenues shall include any award of damages received by the Company and/or its Affiliates in respect of enforcement of the Exploitation IPRs, less the costs of such action. For the further avoidance of doubt, Revenue shall not include any equity investment made in the Company by a Third Party or money paid to the Company by way of a grant.

DATE [AGREEMENT DATE]

Summit Therapeutics plc

- and –

[NON-EXECUTIVE DIRECTOR NAME]

NON-EXECUTIVE DIRECTOR

RESTRICTED STOCK UNIT (RSU) AGREEMENT (IN THE FORM OF A NOMINAL COST OPTION)

THIS AGREEMENT is dated on [AGREEMENT DATE] and is made BETWEEN:

(1) **Summit Therapeutics plc** whose registered office is at 136a Eastern Avenue, Milton Park, Abingdon, Oxfordshire, OX14 4SB (the "**Company**"); and

(2) **[NON-EXECUTIVE DIRECTOR NAME AND ADDRESS]** (the "**RSU Holder"**).

WHEREAS the Company wishes to grant to the RSU Holder a restricted stock unit (RSU) in the form of a nominal-cost option on the terms set out in this Agreement, and this RSU is intended to comply with the requirements of Section 409A of the Code.

NOW THIS DEED WITNESSES AS FOLLOWS:

1 DEFINITIONS AND INTERPRETATION

1.1 In this Schedule, unless otherwise stated, the words and expressions below have the following meanings:

"ADS"	an American Depositary Share being an authorised depositary security denominated in US dollars and listed on NASDAQ which represents a number of Shares and which may be evidenced by an American Depositary Receipt;
"ADS Ratio"	the ratio of Shares per ADS in place from time to time that indicates the number of Shares that an ADS represents, which at the date of grant is five Shares to one ADS;
"AIM"	a market operated by the London Stock Exchange;
"AIM Rules"	the rules for companies whose shares are admitted to trading on AIM published by the London Stock Exchange;
"Board"	subject to clause 10.8, the board of the Company, any duly authorised committee of the board or other duly authorised committee acting under delegated authority from the board;
"Code"	the United States Internal Revenue Code 1986, as amended;
"Company"	Summit Therapeutics plc registered in England and Wales under number 05197494;
"Control"	the meaning given by section 995 of the Income Tax Act 2007;
"Dealing Day"	any day on which the London Stock Exchange is open for business;
"Dealing Restrictions"	restrictions imposed by the Company's share dealing code, the AIM Rules or any applicable laws or regulations which impose restrictions on share dealing;
"Exercise Price"	the price per Share at which Shares subject to the RSU may be acquired on the exercise of the RSU (being not less than the nominal value of a Share) as set out in clause 2.1, as adjusted from time to time in accordance with the terms of this Agreement;
"Grant Date"	the date of this Agreement;
"Group Member"	the Company, any Subsidiary of the Company, any company which is (within the meaning of section 1159 of the Companies Act 2006) the Company's holding company or a Subsidiary of the Company's holding company or, if the Board so determines, any body corporate in relation to which the Company is able to exercise at least 20% of the equity voting rights and "Group" will be construed accordingly;
"Internal Reorganisation"	where immediately after a change of Control of the Company, all or substantially all of the issued share capital of the acquiring company is owned directly or indirectly by the persons who were shareholders in the Company immediately before the change of Control;
"Market Value"	on any day, an amount equal to: (i) in relation to a Share: (a) for so long as the Shares are quoted on AIM or another recognised stock exchange, the closing price of a Share on the relevant date, or if that is not a Dealing Day, the Dealing Day immediately preceding the relevant date; or (b) if the Shares are not quoted on any such exchange, the market value of a Share as determined in accordance with Part VIII Taxation of Chargeable Gains Act 1992 on the relevant date (or such earlier date as determined by the Board); and (ii) in relation to an ADS, the closing price of an ADS on the relevant date, or if that is not a Dealing Day, the Dealing Day immediately preceding the relevant date.
"Normal Vesting Date"	the date on which the RSU will normally Vest, which shall be the first anniversary of the Grant Date;
"Office"	the office of non-executive director of the Company;

"RSU"	the restricted stock unit representing a right to acquire Shares subject to and in accordance with the terms of this Agreement;
"Section 409A"	Section 409A of the Code;
"Share"	a fully paid ordinary share of 0.1p in the capital of the Company;
"Subsidiary"	the meaning given by section 1159 of the Companies Act 2006;
"Tax Liability"	any tax or social security contributions liability in connection with the RSU for which the RSU Holder is liable and for which any Group Member or former Group Member is obliged to account to any relevant authority;
"US Taxpayer"	the RSU Holder, to the extent she is a: a. US citizen; b. US permanent resident (evidenced by a green-card); c. non-US citizen who moves to the United States on or after the Grant Date and who is (or is expected to become) subject to US taxation as a resident alien; or d. non-US citizen to the extent that she is or becomes subject to Section 409A, including a non-resident alien taxpayer, with respect to all or some portion of the RSU that is deemed to be income from a US source; and
"Vest"	the point at which the RSU becomes capable of exercise in accordance with this Agreement, and "Vesting", "Vesting Date", "Vested" and "Unvested" will be construed accordingly.

1.2 References in this Agreement to:

1.2.1 any statutory provisions are to those provisions as amended or re-enacted from time to time;

1.2.2 the singular include the plural and vice versa; and

1.2.3 the masculine include the feminine and vice versa.

1.3 Headings do not form part of this Agreement.

1.4 This Agreement and the RSU granted pursuant to this are intended to comply with Section 409A.

2 GRANT OF RSU

2.1 The Company hereby grants to the RSU Holder an RSU in the form of an option to acquire [NUMBER] Shares at the Exercise Price of £0.01 per Share subject to the provisions of this Agreement.

2.2 Subject to clause 8, the RSU may only be satisfied by:

2.2.1 the issue of new Shares; and/or

2.2.2 the transfer of Shares held by the Company in treasury.

3 RESTRICTIONS ON TRANSFER AND BANKRUPTCY

3.1 The RSU must not be transferred, assigned, charged or otherwise disposed of in any way (except in the event of the RSU Holder's death, to her personal representatives) and will lapse immediately on any attempt to do so.

3.2 The RSU will lapse immediately if the RSU Holder is declared bankrupt or, if the RSU Holder is outside the UK, any analogous event occurs.

4 DIVIDEND EQUIVALENTS

4.1 The Board may decide at any time prior to the issue or transfer of the Shares following exercise of the RSU that the RSU Holder will receive an amount (in cash and/or additional Shares and/or ADSs) equal in value to any dividends that would have been paid on those Shares on such terms and over such period (ending no later than the Vest Date) as the Board may determine. This amount may assume the reinvestment of dividends (on such basis as the Board may determine) and may exclude or include special dividends.

4.2 Any such amount will be payable as soon as reasonably practicable after exercise of the RSU and, unless clause 6.2 applies, by no later than 31 December of the calendar year in which the RSU Vests.

5 REDUCTION OF RSU AND CLAWBACK

5.1 Notwithstanding any other term of this Agreement, the Board may, in its discretion and taking into account all relevant factors including the RSU Holder's level of responsibility, determine that the provisions of either or both of clauses 5.3 and 5.4 should be applied in respect of the RSU if:

5.1.1 in the case of the provisions of clause 5.3, any of the circumstances described in clause 5.2 have occurred; and

5.1.2 in the case of the provisions of clause 5.4, any of the circumstances described in clauses 5.2.1 and 5.2.4 have occurred, within the period beginning on the Grant Date or such earlier date as the Board determines on or before the Grant Date and ending on the later of second anniversary of Vesting or fifth anniversary of the Grant Date, or such longer period as is required under any US Securities and Exchange Commission ("SEC") rules that are applicable to the Company in respect of the RSU Holder.

5.2 The circumstances referred to in clause 5.1 are:

5.2.1 a material misstatement of the Group's audited financial results;

5.2.2 a material failure of risk management by the Company, any other Group Member or a relevant business unit;

5.2.3 serious reputational damage to the Company, any other Group Member or a relevant business unit;

5.2.4 material misconduct on the part of the RSU Holder; or

5.2.5 any other circumstances which the Board in its discretion considers to be similar in their nature or effect.

5.3 The Board may, in its discretion, determine at any time prior to the Vest of the RSU to:

5.3.1 reduce (including to zero) the number of Shares to which the RSU relates or may relate; and/or

5.3.2 impose further conditions on the RSU.

5.4 Subject to clause 5.5, the Board may, in its discretion, determine that at any time after the Vesting of the RSU and prior to the later of the second anniversary of Vesting and the fifth anniversary of the Grant Date (or such longer period as is required by SEC rules that are applicable to the Company) to:

5.4.1 take the action referred to in clauses 5.3.1 or 5.3.2 if a Vested RSU has not yet been exercised, or if Shares or cash have not yet been delivered to the RSU Holder following the exercise of the RSU; and/or

5.4.2 require the RSU Holder to make a cash payment to the Company in respect of some or all of the Shares or cash delivered to her under the RSU; and/or

5.4.3 require the RSU Holder to transfer for nil consideration some or all of the Shares delivered to her under the RSU, and the Board will have discretion to determine the basis on which the amount of cash or Shares is calculated including whether and if so to what extent to take account of any tax or social security liability applicable to the RSU.

5.5 If the action or conduct of the RSU Holder, Group Member or relevant business unit is under investigation prior to the second anniversary of the Vest Date and such investigation has not yet been concluded by that date, the period referred to in clause 5.4 will end on such later date as the Board considers appropriate to allow such investigation to be concluded.

5.6 For the purposes of this clause 5, references to Group Member or a relevant business unit include references to any former Group Member or former business unit.

6 VESTING AND EXERCISE

6.1 Subject to clauses 7, 9, and 10, the RSU will Vest on the Normal Vesting Date and the RSU may then be exercised in accordance with the terms of this clause 6 until 31 December of the calendar year in which the RSU Vests, after which point the RSU will lapse unless clause 6.2 applies.

6.2 If, on the Normal Vesting Date (or on any other date on which the RSU is due to Vest under clauses 9 or 10) a Dealing Restriction applies to the RSU which does not lift prior to 31 December of the calendar year in which the RSU Vests, the RSU may then be exercised to the extent Treas. Reg. §1.409A-2(b)(7)(ii) is applicable when the Dealing Restriction lifts and in no event later than 31 December of the calendar year in which the Dealing Restriction lifts.

6.3 To exercise the RSU, the RSU Holder must pay the aggregate Exercise Price for the Shares subject to the RSU, or enter into arrangements acceptable to the Board to pay that amount.

6.4 Subject to clause 7, the RSU may be exercised pursuant to this clause 6 or clause 9 or 10 in such form or manner as the Board may determine, provided that exercise of the RSU will not take effect until the Company receives payment of the aggregate Exercise Price or an undertaking to pay that amount and a notice of exercise of the RSU.

6.5 Subject to clauses 7 and 8, where the RSU has been exercised, the number of Shares in respect of which the RSU has been exercised, together with any additional Shares, ADSs or cash to which the RSU Holder becomes entitled under clause 4, will be issued, transferred or paid (as applicable) to the RSU Holder as soon as reasonably practicable thereafter and, unless clause 6.2 applies, by no later than 31 December of the calendar year in which the RSU Vests.

7 TAXATION AND REGULATORY ISSUES

7.1 The RSU Holder will be responsible for and indemnifies each relevant Group Member against any Tax Liability relating to her RSU. Any Group Member may withhold an amount equal to such Tax Liability from any amounts due to the RSU Holder (to the extent such withholding is lawful) and/or make any other arrangements as it considers appropriate to ensure recovery of such Tax Liability including, without limitation, the sale of sufficient Shares or ADSs acquired subject to the RSU to realise an amount equal to the Tax Liability.

7.2 The exercise of the RSU and the issue, or transfer from treasury, of Shares or ADSs under this Agreement will be subject to obtaining any approval or consent required by any relevant authority, any Dealing Restrictions or any other applicable laws or regulations (whether in the UK or overseas).

8 ALTERNATIVE MEANS OF SETTLEMENT

8.1 The Board may determine t at any time prior to the date on which Shares in respect of which the RSU has been exercised have been issued or transferred to the RSU Holder that, in substitution for her right to acquire the Shares to which her RSU relates, the RSU Holder will instead receive on exercise of her RSU either:

8.1.1 a cash sum in accordance with clause 8.2;

8.1.2 a reduced number of Shares in accordance with clause 8.3; or

8.1.3 a number of ADSs in accordance with clause 8.4, provided that the issue of ADSs to the RSU Holder does not breach any securities laws or regulation in the US or any other relevant jurisdiction.

8.2 A cash sum to which the RSU Holder becomes entitled under this clause 8.2 will be equal to the Market Value of the number of Shares which would otherwise have been issued or transferred, less the aggregate Exercise Price payable, to the RSU Holder in satisfaction of the exercise of the RSU and for these purposes:

8.2.1 Market Value will be determined by reference to the date of exercise; and

8.2.2 the cash sum will be paid to the RSU Holder as soon as reasonably practicable after the exercise of the RSU (or, if later, the date of such determination) net of any deductions (including but not limited to, any Tax Liability or similar liabilities) as may be required by law and, unless clause 6.2 applies, by no later than 31 December of the calendar year in which the RSU Vests.

8.3 The number of Shares to which the RSU Holder becomes entitled under this clause 8.3 will be equal to the Market Value of that number of Shares which would otherwise have been issued or transferred to the RSU Holder in satisfaction of the exercise of the RSU, less any deductions (including, but not limited to, any Tax Liability or similar liabilities) as may be required by law in respect of the RSU, and for these purposes:

8.3.1 Market Value will be determined by reference to the date of exercise;

8.3.2 the number of Shares to which the RSU Holder is entitled will be issued or transferred to her as soon as reasonably practicable after the exercise of the RSU and, unless clause 6.2 applies, by no later than 31 December of the calendar year in which the RSU Vests.

8.4 The number of ADSs to which the RSU Holder becomes entitled under this clause 8.4 will be calculated by applying the ADS Ratio in force as at the date of exercise to the number of Shares which would otherwise have been issued or transferred to the RSU Holder in satisfaction of the exercise of the RSU, and for these purposes:

8.4.1 Market Value will be determined by reference to the date of exercise; and

8.4.2 subject clause 7, the number of ADSs to which the RSU Holder is entitled will be issued or transferred to her as soon as reasonably practicable after the exercise of the RSU and, unless clause 6.2 applies, by no later than 31 December of the calendar year in which the RSU Vests.

9 CESSATION OF OFFICE

Death

9.1 If the RSU Holder dies prior to the Normal Vesting Date, if the RSU is Unvested as of the date of her death, it will Vest in full as of the date of death.

9.2 If the RSU Vests in accordance with clause 9.1, or was already Vested but not yet exercised at the date of death, it may then be exercised, subject to clause 10, on or before 31 December in the calendar year of Vest, after which time it will lapse unless clause 6.2 applies.

Cessation of Office

9.3 If the RSU Holder ceases to hold Office prior to the Normal Vesting Date for any reason other than death, the RSU will continue and, subject to it Vesting and lapsing earlier under clause 10, will Vest and be exercisable in accordance with clause 6.1.

10 CORPORATE EVENTS

10.1 Where any of the events described in clause 10.2 or 10.3 occur and such event is a change in ownership or effective control as provided in Section 409A(a)(2)(v) and Treas. Reg. §1.409A-3(i)(5), subject to clauses 10.6 and 10.7, if the RSU is not yet Vested, it will Vest in full at the time of such event. The RSU will be exercisable until 31 December in the calendar year of Vest after which time it will lapse unless clause 6.2 applies.

10.2 The events referred to in clause 10.1 are:

10.2.1 General offer

If any person (either alone or together with any person acting in concert with her):

10.2.1.1 obtains Control of the Company as a result of making a general offer to acquire Shares; or

10.2.1.2 already having Control of the Company, makes an offer to acquire all of the Shares other than those which are already owned by her and such offer becomes wholly unconditional.

10.2.2. Scheme of arrangement

A compromise or arrangement in accordance with section 899 of the Companies Act 2006 for the purposes of a change of Control of the Company is sanctioned by the Court.

10.3 If a person becomes bound or entitled to acquire Shares under sections 979 to 982 or 983 to 985 of the Companies Act 2006 (takeover offers: right of offeror to buy out minority shareholder etc.), the RSU will Vest in full and may be exercised during the period while that person remains so bound or entitled, or until 31 December of the calendar year of Vesting, whichever is earlier. The RSU will lapse at the end of such period unless clause 6.2 applies. It is the intent that the RSU will be exercised and delivered in accordance with Section 409A although no individual tax treatment is guaranteed by the Company.

10.4 Winding-up

On the passing of a resolution for the voluntary winding-up or the making of an order for the compulsory winding up of the Company, the Board will determine:

whether the RSU if not yet Vested will Vest in full; and

the period of time during which any Vested RSU may be exercised (provided, unless clause 6.2 applies, that this does not end later than 31 December of calendar year of Vesting), after which time it will lapse.

To the extent that the RSU does not Vest under clause 10.4 it will lapse immediately. Where the Board resolves to Vest RSUs pursuant to this clause 10.4, it is the intent that any such resolution will be made such that the RSUs will be exercised in accordance with Section 409A although no individual tax treatment is guaranteed by the Company.

10.5 Other events

If the Company is or may be affected by a demerger, delisting, special dividend or other similar event and in the opinion of the Board, such event may affect the current or future value of Shares to a material extent and the Board determines it would not be appropriate or practical to adjust the RSU in accordance with clause 11 the Board may determine that the following provisions will apply:

10.5.1 the RSU will Vest in full on such terms as the Board may determine; and

10.5.2 the Board will determine the period during which any Vested RSU may be exercised (provided, unless clause 6.2 applies, that this does not end later than 31 December of the calendar year of Vesting), after which time it will lapse.

To the extent that RSU does not Vest it will lapse immediately, unless the Board determines otherwise. It is the intent that the RSU will be exercised and delivered in accordance with Section 409A although no individual tax treatment is guaranteed by the Company.

10.6 Exchange

The RSU will not Vest under clause 10.1 but will be exchanged on the terms set out in clause 10.7 to the extent that:

10.6.1 an offer to exchange the RSU (the "**Existing RSU**") is made and accepted by the RSU Holder;

10.6.2 there is an Internal Reorganisation, unless the Board determines that the RSU should Vest under clause 10.1; or

10.6.3 the Board decides (before the relevant event) that the Existing RSU will be exchanged automatically.

To the extent the RSU is exchanged pursuant to this clause 10.6 and 10.7, it is the intent that any exchange will be done in accordance with Section 409A although no individual tax treatment is guaranteed by the Company.

10.7 Exchange terms

If this clause 10.7 applies, the Existing RSU will not Vest but will be exchanged in consideration of the grant of a new RSU which, in the opinion of the Board, is equivalent to the Existing RSU, but relates to shares in a different company (whether the acquiring company or a different company).

10.8 Meaning of Board

Any reference to the Board in this clause 10 means the members of the Board immediately prior to the relevant event.

11 ADJUSTMENTS

11.1 The number of Shares subject to the RSU and the Exercise Price of the RSU may be adjusted in such manner as the Board determines, in the event of:

11.1.1 any variation of the share capital of the Company; or

11.1.2 a demerger, delisting, special dividend or other similar event which may, in the opinion of the Board, affect the current or future value of Shares.

12 AMENDMENTS

12.1 The Board may at any time amend the terms of the RSU by written agreement with the RSU Holder.

13 LEGAL ENTITLEMENT

13.1 This clause 13 applies during the RSU Holder's Office and after cessation of such Office.

13.2 The grant of the RSU to the RSU Holder does not create any right for that RSU Holder to be granted any further RSUs or to be granted RSUs on any particular terms, including the number of Shares to which RSUs relate.

13.3 The RSU Holder acknowledges that nothing in the Agreement will confer on her any right to continue in Office.

13.4 The RSU Holder waives all rights to compensation for any loss in relation to the RSU, including:

13.4.1 any loss or reduction of any rights or expectations under the Agreement in any circumstances or for any reason;

13.4.2 any exercise of a discretion or a decision taken in relation to the RSU, or any failure to exercise a discretion or take a decision; and

13.4.3the operation, suspension, termination or amendment of the Agreement.

14 GENERAL

14.1 Shares issued or transferred from treasury under this Agreement will rank equally in all respects with the Shares then in issue, except that they will not rank for any voting, dividend or other rights attaching to Shares by reference to a record date preceding the date of issue or transfer from treasury.

14.2 The Board will have full authority to interpret and construe any provision of this Agreement and decisions of the Board will be final and binding on all parties.

14.3 Any notice or other communication in connection with the Agreement may be delivered personally or sent by electronic means or post, in the case of a company to its registered office (for the attention of the company secretary), and in the case of an individual to her last known address. Where a notice or other communication is given by post, it will be deemed to have been received 72 hours after it was put into the post properly addressed and stamped, and if by electronic means, when the sender receives electronic confirmation of delivery or if not available, 24 hours after sending the notice.

14.4 No third party will have any rights under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of the Agreement (without prejudice to any right of a third party which exists other than under that Act).

14.5 The RSU Holder consents to the holding and processing of personal data provided by the RSU Holder to the Company for all purposes relating to the Agreement, including but not limited to administering and maintaining RSU Holder records, providing information to any registrars, brokers or other third party administrators, providing information to future purchasers of the Company or the business in which the RSU Holder works and transferring information about the RSU Holder to a country or territory outside the European Economic Area or elsewhere.

14.6 The RSU evidenced by this Agreement is intended to comply with the requirements of Section 409A and any ambiguities herein will be interpreted to so comply. The RSU Holder shall have no right to accelerate or defer any payment hereunder unless such acceleration or deferral is permitted by Section 409A. The Company makes no representation or warranty and shall have no liability to the RSU Holder or any other person if any provisions or payments, compensation or other benefits under the RSU are determined to constitute nonqualified deferred compensation subject to Section 409A but do not satisfy the conditions of that section.

14.7 This Agreement will be governed by and construed in accordance with the laws of England and Wales. Any person referred to in this Agreement submits to the exclusive jurisdiction of the Courts of England and Wales.

IN WITNESS of which the parties have executed and delivered this Agreement as their deed on the day and year first above written.

EXECUTED AS A DEED (but not delivered until dated) by **SUMMIT THERAPEUTICS PLC** acting by two Directors or a Director and the Secretary:-)
)
)

Director

Director/Secretary

SIGNED AS A DEED (but not delivered until dated) by **[NON-EXECUTIVE DIRECTOR NAME]**)
)

in the presence of:-)

Signature of witness:

Name of witness:

Address:

Occupation:

Exhibit 8.1

SUBSIDIARIES OF THE REGISTRANT

Name of Subsidiary	Jurisdiction of incorporation or organization
Summit Therapeutics Inc.	Delaware, USA
Summit Corporation Limited	England and Wales
Summit (Oxford) Limited	England and Wales
Summit (Wales) Limited	England and Wales
Summit (Cambridge) Limited	England and Wales
Summit Discovery 1 Limited	England and Wales
Summit Corporation Employee Benefit Trust Company Limited	England and Wales
MuOx Limited	England and Wales
Discuva Limited	England and Wales
Summit Infectious Diseases Limited	England and Wales

Certification by the Chief Executive Officer

Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Glyn Edwards, certify that:

1. I have reviewed this annual report on Form 20-F of Summit Therapeutics plc (the "Company");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;

4. The Company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and

5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: April 13, 2018

By: /s/ Glyn Edwards
Name: Glyn Edwards
Title: Chief Executive Officer

Certification by the Chief Financial Officer

Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Erik Ostrowski, certify that:

1. I have reviewed this annual report on Form 20-F of Summit Therapeutics plc (the "Company");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;

4. The Company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and

5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: April 13, 2018

By: /s/ Erik Ostrowski

Name: Erik Ostrowski

Title: Chief Financial Officer

Certification by the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report on Form 20-F of Summit Therapeutics plc (the "Company") for the year ended January 31, 2018, as filed with the U.S. Securities and Exchange Commission on the date hereof (the "Report"), the undersigned Glyn Edwards, as Chief Executive Officer of the Company, and Erik Ostrowski, as Chief Financial Officer of the Company, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of his knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 13, 2018

By: /s/ Glyn Edwards
Name: Glyn Edwards
Title: *Chief Executive Officer*

By: /s/ Erik Ostrowski
Name: Erik Ostrowski
Title: *Chief Financial Officer*

Exhibit 15.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form F-3 (No. 333-211301) of Summit Therapeutics plc of our report dated April 11, 2018 relating to the consolidated financial statements, which appears in this Form 20-F.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
Reading, UK
April 13, 2018