ANNUAL REPORT AND FINANCIAL STATEMENTS

for the year ended

31 December 2019

Adaptimmune Therapeutics plc

Company Number 09338148

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DIRECTORS	Mr L M Alleva Dr A Behbahani Ms B Duncan Mr J Furey Mr G Kerr Mr D M Mott Mr J J Noble Dr C E Sigal Mr A G Rawcliffe (appointed 1 September 2019) Dr T Zaks
SECRETARY	Ms M Henry
COMPANY NUMBER	09338148
REGISTERED OFFICE	60 Jubilee Avenue Milton Park Abingdon Oxfordshire OX14 4RX
AUDITOR	KPMG LLP 2 Forbury Place 33 Forbury Road Reading RG1 3AD

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Adaptimmune Therapeutics plc was incorporated on 3 December 2014. The Directors submit this report and the Consolidated Financial Statements of Adaptimmune Therapeutics plc and its subsidiaries, Adaptimmune Limited and Adaptimmune LLC (which may be referred to as "the Group", "we", "us" or "our") as of and for the years ended 31 December 2019 and 2018, as well as the financial statements for Adaptimmune Therapeutics plc ("the Company" or "the parent company") as of and for the years ended 31 December 2019 and 2018.

Adaptimmune Therapeutics plc is a public company limited by shares and incorporated and domiciled in England and Wales. Adaptimmune Limited is registered in England and Wales. Adaptimmune LLC is registered in the United States of America.

BASIS OF PRESENTATION

Our Directors have elected to prepare the group financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the EU and in compliance with IFRSs issued by the IASB. The parent company financial statements are drawn up in accordance with the Companies Act 2006 and Financial Reporting Standard 101 ("FRS 101").

PRINCIPAL ACTIVITIES

The principal activity of Adaptimmune Therapeutics plc is the research, development and commercialisation of cell therapies to treat cancer.

We are a clinical-stage biopharmaceutical company focused on providing novel cell therapies to people with cancer. We are a leader in the development of T-cell therapies for solid tumours. Our proprietary SPEAR (Specific Peptide Enhanced Affinity Receptor) T-cell platform enables us to identify cancer targets, find and genetically engineer T-cell receptors ("TCRs") against those targets, and produce therapeutic candidates for administration to patients. Using our affinity engineered TCRs, we aim to become the first company to have a TCR T-cell approved for the treatment of a solid tumour indication. We have clinical trials ongoing with our wholly-owned ADP-A2M4, ADP-A2M4CD8 (the ''SURPASS'' trial), each targeting the MAGE-A4 antigen, and ADP-A2AFP SPEAR T-cells targeting the AFP antigen in a total of ten solid tumour types including non-small cell lung cancer (''NSCLC''), head and neck cancer, ovarian, urothelial, melanoma, hepatocellular, oesophageal, gastric, synovial sarcoma and myxoid round cell liposarcoma (''MRCLS'') cancers.

RESULTS AND DIVIDENDS

The result for the year is set out in the Consolidated Income Statement on page 71.

The Directors do not propose a dividend (2018: $nil).

CHARITABLE AND POLITICAL CONTRIBUTIONS

No charitable contributions were paid during the year (2018: $nil).

No donations were made during the year to political organisations (2018: $nil).

FINANCIAL INSTRUMENTS

Please refer to the Financial Risk Management section included in our Strategic Report, beginning on page 10 of this document.

STRUCTURE OF THE GROUP'S CAPITAL

Please refer to note 19 to the financial statements.

DIRECTORS

The following Directors have held office since the dates indicated below.

Mr L M Alleva	(Appointed 5 March 2015 and re-elected 20 June 2018)
Dr A Behbahani	(Appointed 12 February 2015 and re-elected 21 June 2017 and 2 May 2019)
Ms B Duncan	(Appointed 23 June 2016 and re-elected 21 June 2017)
Mr J Furey	(Appointed 5 July 2018 and re-elected 2 May 2019)
Mr G Kerr	(Appointed 1 November 2016 and re-elected 21 June 2017)
Mr D M Mott	(Appointed 12 February 2015 and re-elected 20 June 2018)
Mr J J Noble	(Appointed 3 December 2014 and re-elected 16 June 2016 and 2 May 2019)
Mr A G Rawcliffe	(Appointed 1 September 2019)
Dr C E Sigal	(Appointed 12 February 2015 and re-elected 16 June 2016 and 20 June 2018)
Dr T Zaks	(Appointed 14 November 2016 and re-elected 21 June 2017)

During the year ended 31 December 2019, there were five full meetings of the Board of Directors. All of our then Directors attended a minimum of 75% of the aggregate of the meetings of the Board of Directors and meetings of its committees of which he or she was a member during 2019. Mr Rawcliffe was appointed to the Board of Directors and as Chief Executive Officer effective from 1 September 2019 and attended 100% of the meetings of the Board of Directors from his appointment date through to the end of 2019. In addition, Mr Rawcliffe was in attendance at 100% of the committee meetings of the Board of Directors from his appointment date through to the end of 2019.

One-third of the Directors are subject to retirement by rotation at each Annual General Meeting of shareholders.

THIRD PARTY INDEMNITY PROVISION FOR DIRECTORS

At the time the report is approved, there are no qualifying third party indemnity provisions in place for the benefit of one or more of the Directors.

EMPLOYEE ENGAGEMENT

The company is not required to report on employee engagement in the Directors' Report because there were fewer than 250 UK employees in the Group for the year ended 31 December 2019. However, the Group is committed to the continued development of employee engagement by an effective communications and consultative framework. Further information regarding employee engagement is included in the Section 172 (1) statement set out in our Strategic Report.

DISABLED PERSONS

Applications for employment by disabled persons are always fully considered, bearing in mind the respective aptitudes and abilities of the applicant concerned. In the event of members of staff becoming disabled, every effort is made to ensure that their employment with the Group continues and the appropriate training is arranged. It is the policy of the Group that the training, career development and promotion of a disabled person should, as far as possible, be identical to that of a person who does not suffer from a disability.

BUSINESS RELATIONSHIPS

The Directors have had regard to the company's need to foster business relationships with suppliers, customers and others. Further information is provided in the Section 172 (1) statement set out in our Strategic Report.

ENVIRONMENTAL MATTERS

Please refer to the Environmental Matters section included in our Strategic Report and to the information provided in the Section 172 (1) statement set out in our Strategic Report.

GOING CONCERN

Our business activities, together with the factors likely to affect our future development, performance and position, are set out in our Strategic Report.

In determining whether our financial statements can be prepared on a going concern basis, our Directors considered the Group's business activities, together with the factors likely to affect our future development and performance. The review also included our financial position and cash flows.

As of the date of this report, our Directors have a reasonable expectation that we have adequate resources to continue in business for not less than 12 months from the signing of these accounts. Accordingly, the financial statements have been prepared on the going concern basis.

AUDITOR

A resolution to reappoint KPMG LLP will be proposed at the forthcoming Annual General Meeting.

STATEMENT AS TO DISCLOSURE OF INFORMATION TO THE AUDITOR

All Directors in office at the time the report is approved confirm the following:

(i) so far as each Director is aware, there is no relevant audit information of which the Company's auditors are unaware; and

(ii) each Director has taken all the steps that he or she ought to have taken in his or her duty as a Director in order to make himself or herself aware of any relevant audit information and to establish that the Company's auditors are aware of that information.

The Directors' Report was approved by the Board on 26 February 2020.

On behalf of the Board

Adrian Rawcliffe
Director

2 March 2020

INTRODUCTION

Adaptimmune Therapeutics plc ("the Company") was incorporated on 3 December 2014. Adaptimmune Therapeutics plc on behalf of itself and its subsidiaries, Adaptimmune Limited and Adaptimmune LLC (which may be referred to as "the Group", "we", "us" or "our"), is required to produce a strategic report complying with the requirements of the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 and the Companies (Miscellaneous Reporting) Regulations 2018 (the "Regulations").

OVERVIEW

We are a clinical-stage biopharmaceutical company focused on providing novel cell therapies to people with cancer. We are a leader in the development of T-cell therapies for solid tumours.

Our proprietary SPEAR (Specific Peptide Enhanced Affinity Receptor) T-cell platform enables us to identify cancer targets, find and genetically engineer T-cell receptors (''TCRs'') against those targets, and produce therapeutic candidates (''Cell therapies'') for administration to patients. Using our affinity engineered TCRs, we aim to become the first company to have a TCR T-cell approved for the treatment of a solid tumour indication. We have clinical trials ongoing with our wholly-owned ADP-A2M4, ADP-A2M4CD8 (the ''SURPASS'' trial), each targeting the MAGE-A4 antigen, and ADP-A2AFP SPEAR T-cells targeting the AFP cancer antigen in a total of ten solid tumour types including non-small cell lung cancer (''NSCLC''), head and neck cancer, ovarian, urothelial, melanoma, hepatocellular, oesophageal, gastric, synovial sarcoma and myxoid round cell liposarcoma (''MRCLS'') cancers. Current data provide an encouraging demonstration of the potential of our SPEAR T-cell platform across multiple targets and a range of solid tumours:

- ***ADP-A2M4—Multiple Indications:*** A Phase 1 clinical trial is ongoing in urothelial, melanoma, head and neck, ovarian, NSCLC, oesophageal and gastric cancers, synovial sarcoma and MRCLS. RECIST responses have been reported in patients with synovial sarcoma and head and neck cancer. A radiation sub-study under this Phase 1 clinical trial is continuing with a partial response being seen in the first patient treated. A Phase 2 clinical trial has been initiated in synovial sarcoma and MRCLS indications. In addition, planning is ongoing for initiation of a clinical trial combining ADP-A2M4 with a PD-1 / PD-L1 pathway inhibitor in 2020.

- ***ADP-A2AFP - Hepatocellular Carcinoma***: We continue dosing patients in our Phase 1, open-label, dose-escalation study designed to evaluate the safety and anti-tumour activity of our alpha fetoprotein (''AFP'') therapeutic candidate for the treatment of hepatocellular carcinoma, or HCC. Patients are being treated with target doses of 5 billion Cell therapies (range 1.2 to 6 billion) and the first patient treated at this target dose achieved a partial response.

- ***ADP-A2M4CD8—SURPASS Trial:*** Enrolment has started in a Phase 1 trial for a next generation SPEAR T-cell, ADP-A2M4CD8. This next generation SPEAR T-cell utilizes the same engineered T-cell receptor as ADP-A2M4, but with the addition of a CD8α homodimer. The addition of the CD8α homodimer has been shown in vitro to increase cytokine release and SPEAR T-cell potency. A partial response was reported in the first patient treated.

A fourth SPEAR T-cell, the NY-ESO SPEAR T-cell, was transitioned to GlaxoSmithKline (''GSK'') in 2018, following GSK's exercise of its option to obtain an exclusive global license to the NY-ESO SPEAR T-cell program in September 2017.

We have our own manufacturing facility in the United States that manufactures Cell therapies to treat patients across a broad range of solid tumours. We also have our own dedicated vector manufacturing in the United Kingdom which,

together with our US manufacturing facility, will enable us to continue improving the effectiveness and patient experience associated with our cell therapies.

We continue to develop our preclinical pipeline of new cell therapies, including Cell therapies, CAR-Ts and novel HLA independent TCR (''HiT'') therapies to both new targets and to existing targets towards further HLA types. As part of this research and development, we are developing next generation and combination approaches to enhance our cell therapies. These are being developed internally and in collaboration with third parties including Alpine Immune Sciences (''Alpine'') and Noile-Immune Biotech Inc (''Noile-Immune'').

We have also developed an allogeneic platform for ''off-the-shelf'' cell immunotherapies, including CAR-T and TCR T-cells. On 13 January 2020, we entered into an agreement with Universal Cells Inc. (''Universal Cells''), a wholly-owned subsidiary of Astellas Pharma Inc, for the co-development and co-commercialization of stem-cell derived allogeneic CAR-T and TCR T-cell therapies. The agreement covers the co-development and co-commercialization of up to three T-cell therapies and combines Universal Cells' donor cell platform and our stem-cell derived allogeneic T-cell platform. Universal Cells also has the right to select two targets and develop allogeneic cell therapy candidates independently. This agreement follows collaboration with Universal Cells Inc since 2015 on the development of gene-edited induced pluripotent stem cells (iPSCs), for which Adaptimmune has the exclusive rights to develop and commercialize resulting T-cell therapy products using its proprietary process for generating T-cells from iPSCs.

OUR SPEAR T-CELL THERAPIES

The Immune System and T-cells

The immune system plays an important role in targeting and destroying cancer cells. Specifically, T-cells, which are a type of white blood cell, and their receptors create a natural system that is designed to scan the body for diseased cells. In general, cells process proteins internally and then convert these proteins into peptide fragments which are then presented on the cell surface by a protein complex called the Human Leukocyte Antigen, or HLA. T-cells naturally scan all other cells in the body for the presence of abnormal peptide fragments, such as those generated from infectious agents. Recognition of this peptide-HLA complex takes place through the TCR expressed on the T-cells. However, binding of naturally occurring TCRs to cancer targets tends to be very poor because cancer proteins appear very similar to naturally occurring proteins on healthy cells.

Target Identification and Validation

Before developing any engineered cell therapy, it is important to identify and validate a suitable target cancer peptide. The target must be expressed primarily only on the cancer cells of interest and with expression in normal non-cancerous tissue only where a risk to the patient would be deemed acceptable. Careful validation and identification of targets is important to ensuring that any engineered cell therapy is specific to the targeted cancer and does not bind to the same target on non-cancer cells, or that the receptor in the cell therapy does not recognize a similar peptide or protein derived in normal cells. Our target identification platform is focused on three approaches. First, we are using our platform to validate cancer testis antigens, for example the MAGE-A4 antigen. Second, we are using our platform to identify non-cancer testis antigens which are closely related to a specific disease indication, for example the AFP antigen. Finally, we are identifying targets in the context of different HLA types or extracellular cell surface targets for HLA-independent constructs ensuring that we can address a broad patient population either across multiple HLA types or without HLA restriction, respectively.

Engineering of T-cells

Following identification of a suitable target peptide, we identify TCRs or other cell therapy receptors (for example CAR that are capable of binding to that target peptide or protein. We then engineer and optimize those identified receptors to enhance and optimize their ability to recognize and bind to the cancer targets, thereby enabling a highly targeted immunotherapy which complements a patient's immune system. The optimized cell therapy then undergoes extensive preclinical safety testing prior to administration to patients. Our SPEAR T-cell platform technology which utilizes affinity engineered TCRs enables us to develop a pipeline of targets and TCR therapeutic candidates that we believe may be

effective in a variety of cancer types that are unresponsive to currently available and experimental therapies. We have three wholly owned SPEAR T-cells currently in clinical trials (ADP-A2M4CD8, ADP-A2M4 and ADP-A2AFP) and a pipeline of SPEAR T-cells and other cell therapies in development, including SPEAR T-cells directed to peptides expressed in the context of different HLA-types

Other cell therapies being developed include CAR T-cells where a CAR (Chimeric Antigen Receptor) is engineered to recognize proteins expressed on the surface of the cancer cells to enable the T-cells to be directed to and to recognize those cancer cells and HLA-independent TCRs (HiTs) which are able to recognize cell surface antigens expressed by cancer cells independently of HLA.

Administration to Patients

The current process for treating a patient with our cell therapies involves extracting the patient's T-cells and then combining the extracted cells with our delivery system containing the gene for our engineered cell therapy, through a process known as transduction. Our delivery system uses a type of self-inactivating (SIN) virus, known as SIN-lentivirus, to transduce the patient's T-cells ("lentiviral vector"). The transduced T-cells are then expanded and infused back into the patient. When these T-cells encounter a recognised peptide or protein, they multiply and initiate the destruction of the targeted cancer cells.

PRODUCT PIPELINE

ADP-A2M4—Multiple Indications: Clinical trials are ongoing with our ADP-A2M4 SPEAR T-cell in multiple indications. In addition, planning is ongoing for initiation of a clinical trial combining ADP-A2M4 with a PD-1 / PD-L1 pathway inhibitor in 2020.

- A Phase 1 clinical trial in multiple tumour indications, namely urothelial, melanoma, head and neck, ovarian, NSCLC, oesophageal and gastric cancers, synovial sarcoma and MRCLS completed enrolment in early 2020.
    - As of 23 October 2019, data from 14 evaluable patients with synovial sarcoma treated in the expansion phase of this trial demonstrated an overall response rate of 50% (including both confirmed and unconfirmed partial responses (PRs)). 13 out of 14 evaluable patients had evidence of disease control (with best overall responses of partial response (7 patients) or stable disease (7 patients)). A clinical update was provided at the Connective Tissue Oncology Society in November 2019.
    - Beyond synovial sarcoma tumour shrinkage has been observed in patients with melanoma and ovarian cancers and a partial response was reported in a head and neck cancer patient.
- A Phase 2 clinical trial has been initiated in synovial sarcoma and MRCLS. The trial will take place at sites in the United States, Canada and Europe. The trial will include up to 60 patients at a selected dose of up to 10 billion transduced ADP-A2M4 Cell therapies. Primary responses will be assessed by overall response rate by RECIST v1.1 ("Response Evaluation Criteria In Solid Tumours v1.1"). The lymphodepletion regimen will be fludarabine (30mg/m2/day) for 4 days and cyclophosphamide (600 mg/m2/day) for 3 days.
- A radiation sub-study under the Phase 1 clinical trial is continuing at the MD Anderson Cancer Center. The sub-study will treat up to 10 patients and has a primary endpoint of safety, with RECIST v1.1 responses being a secondary endpoint. The radiation is a low dose radiation and is administered to lesions or isocenters prior to lymphodepletion.

ADP-A2AFP - Hepatocellular Carcinoma: We continue dosing patients in our Phase 1, open-label, dose-escalation study designed to evaluate the safety and anti-tumour activity of our alpha fetoprotein (''AFP'') therapeutic candidate for the treatment of hepatocellular carcinoma, or HCC. The trial is open in the United States, United Kingdom and the European Union. Patients are now enroling in Cohort 3 and are being treated with target doses of 5 billion Cell therapies (range 1.2 to 6 billion). The first patient treated in this cohort had a confirmed PR (decrease of 100% in target lesions). Most adverse events to date are consistent with those typically experienced by cancer patients undergoing cytotoxic chemotherapy or other cancer immunotherapies.

ADP-A2M4CD8—SURPASS Trial: Enrolment has started in a Phase 1 trial for a next generation SPEAR T-cell, ADP-A2M4CD8. This next generation SPEAR T-cell utilizes the same engineered T-cell receptor as ADP-A2M4, but with the addition of a CD8α homodimer. The addition of the CD8α homodimer has been shown in vitro to increase cytokine release and SPEAR T-cell potency. The SURPASS trial will enrol up to 30 patients across multiple solid tumour indications. Similar to our other trials, the SURPASS trial will be a three-cohort dose escalation study. Unlike the other trials, the stagger between patients will be shorter and the starting dose in the first cohort will be 0.8 to 1.2 billion Cell therapies, instead of 100 million Cell therapies, as was previously the case. Each dose cohort will enrol three patients and can be expanded to six patients if a dose limiting toxicity occurs. After dose escalation is complete, there is an Expansion Phase with doses up to 10 billion cells. The lymphodepletion regimen will be fludarabine (30mg/m2/day) for 4 days and cyclophosphamide (600 mg/m2/day) for 3 days. A partial response was reported in the first patient treated.

ADP-A2M10: Two Phase 1 clinical trials were conducted with ADP-A2M10 for the treatment of (i) NSCLC, and (ii) urothelial, melanoma and head and neck cancers in the United States, Canada, the United Kingdom and Spain. Enrolment in these trials closed as planned in 2019.

NY-ESO SPEAR T-cell Therapy (transitioned to GSK)

A fourth SPEAR T-cell, the NY-ESO SPEAR T-cell, was transitioned to GlaxoSmithKline (''GSK'') in 2018, following GSK's exercise of its option to obtain an exclusive global license to the NY-ESO SPEAR T-cell program in September 2017. GSK has assumed full responsibility for all development, manufacturing and commercialization activities for the NY-ESO SPEAR T-cell, including progression of this SPEAR T-cell into further clinical trials. Under the ongoing Collaboration and License Agreement with GSK, a third target program remains ongoing. GSK is currently entitled to nominate a fourth target program and, upon satisfying other conditions, may have the right to nominate a fifth program under the GSK Collaboration and License Agreement, in each case excluding our ongoing wholly-owned development programs.

Preclinical candidates and next generation technology

We continue to progress development of new SPEAR T-cells and other cell therapies including HLA-independent TCRs (HiTs) and CAR-Ts directed to new targets and to targets expressed in the context of HLA-types other than HLA-A2. As part of our preclinical development we also have multiple development programs ongoing both internally and with third party collaborators to develop various approaches to enhance our cell therapy products.

Allogeneic iPSC platform

We are looking to develop affinity engineered donor T-cells that are universally applicable to all patients by developing gene-edited inducible pluripotent stem cells (iPSC) differentiated to T-cells by our in-house proprietary process. These "off-the shelf cells" are being developed to overcome the current limitation of autologous therapies that need to be manufactured specifically for each patient and donor-derived T-cells which may need repeated infusions. The enhanced T-cell technology being developed involves selective engineering for the removal of certain cell surface proteins (for example, Human Leukocyte Antigen ("HLA") molecules) and the addition of our receptor candidates, without the use of

nucleases, to develop these T-cell products. If successful, this will enable us to treat our patients with an off-the-shelf cell therapy product.

Manufacturing Platform Development

Manufacturing Capability

We have our own SPEAR T-cell manufacturing capability at the Navy Yard in Philadelphia, Pennsylvania which is capable of manufacturing all of our wholly owned assets across a range of solid tumours. The Navy Yard facility is currently able to produce SPEAR T-cell product for up to 10 patients per month. With further investment the facility could treat over 1,000 patients per year. We also have the ability to use third party contract manufacturing if required to increase capacity.

We have our own dedicated vector manufacturing capability in the United Kingdom, within the Catapult Cell and Gene Therapy Manufacturing Centre in Stevenage, which is now able to produce vector for our Phase 1 clinical trials. The first batch of GMP vector was completed in Q4 of 2019 and is pending final quality release testing. Control of our own end-to-end manufacturing process (including vector, T-cell and analytical quality control testing) enables us to improve and further develop our processes for manufacture of our cell therapies. We continue to work with our third party vector manufacturer for supply of vectors to support our ongoing clinical trials.

Manufacturing Improvements

We have the goal of reducing the time between apheresis of a patient and return of affinity enhanced SPEAR T-cells back to the patient. We have made a number of changes to our current SPEAR T-cell manufacturing process and are continuing to make changes. We are now able to manufacture SPEAR T-cells with a 25 day processing time and we continue to optimize further. The combination of integrated manufacturing capability with continuing process development enables us to continue to be a leader in cell therapy manufacture.

COLLABORATIONS AND STRATEGIC ALLIANCES

Universal Cells Co-development Collaboration Agreement

On 13 January 2020, the Group entered into a Co-development and Co-commercialization agreement ("Agreement") with Universal Cells, Inc., a wholly-owned subsidiary of Astellas Pharma Inc ("Universal Cells").

Under the Agreement the parties will agree on up to three targets and will co-develop T-cell therapies directed to those targets pursuant to an agreed research plan. For each target, Universal Cells will fund co-development up until completion of a Phase 1 trial for products directed to such target. Upon completion of the Phase 1 trial for a product, Universal Cells and Adaptimmune will elect whether to progress with co-development and co-commercialization of such product, or to allow the other party to pursue the candidate independently.

If the parties progress with co-development and co-commercialization of a product, then each party will grant the other party a co-exclusive license to co-develop and co-commercialize such product in the field of T-cell therapy. If a product is developed solely by one party, then the other party will grant to the continuing party an exclusive license to develop and commercialize such product in the field of T-cell therapy.

In addition, Universal Cells is also granted the right to develop, independently of Adaptimmune, allogeneic T-cell therapy candidates directed to two targets selected by Universal Cells. Universal Cells will have sole rights to develop and commercialize products directed against such products.

Under the terms of the agreement, Adaptimmune may receive up to $897.5 million in payments, including:

- An upfront payment of $50 million.
- Development milestones of up to $73.75 million for each co-developed and co-commercialized product

- Development milestones of up to $147.5 million per product and up to $110 million in sales milestones for products developed unilaterally by Universal Cells.

In addition, Adaptimmune will receive research funding of up to $7.5 million per year and tiered royalties on net sales in the mid-single to mid-teen digits.

Under the terms of the Agreement and in consideration for rights under certain contributed Universal Cells technology for a product unilaterally developed by Adaptimmune, Universal Cells may receive up to $552.5 million, including up to $147.5 million in milestone payments per product and up to $110 million in sales milestones. In addition, Universal Cells will receive tiered royalties on net sales in the mid-single to mid-teen digits.

To the extent that Universal Cells and Adaptimmune co-develop and co-commercialize any product, the parties will share equally all worldwide costs and profits. Further details governing the parties' co-commercialization will be articulated in a product-specific commercialization agreement.

Either party can terminate the Agreement in the event of material breach or insolvency of the other party. Universal Cells can terminate the Agreement for convenience in its entirety or partly in relation to any targets and products directed to such targets. Adaptimmune can terminate the Agreement for convenience in relation to any target it is unilaterally developing and to products directed to such target.

In addition to the Agreement, the parties have also made amendments to the pre-existing agreement between Universal Cells, Inc. and Adaptimmune which was announced on 1 December 2015. The amendments relate primarily to changes to the development plan agreed between the parties and the pre-existing agreement has been amended and re-stated as at 13 January 2020 as a result of the changes agreed. The pre-existing agreement relates to the use of Universal Cells gene editing and HLA-editing technology in the context of the development of our own allogeneic T-cell therapies.

GSK Collaboration and License Agreement

We entered into the GSK Collaboration and License Agreement regarding the development, manufacture and commercialization of TCR therapeutic candidates in May 2014. The collaboration is for up to five programs. The first program was the NY-ESO SPEAR T-cell program, in relation to which GSK has now exercised its option to take an exclusive license. The second program related to development of a SPEAR T-cell to a peptide derived from the PRAME antigen. This program has now completed. The third target program with GSK remains ongoing and two other targets may be nominated by GSK at specified times under the agreement.

Under the terms of the GSK Collaboration and License Agreement, the Company may be entitled to:

- development milestones of up to £18 million ($23 million) per product and HLA-type for the NY-ESO Program and up to £21.5 million ($27.3 million) per product and HLA-type for other programs (including the third target program);

- regulatory milestones of up to £36 million ($45.7 million) per product and HLA-type for the NY-ESO program and up to £40 million ($50.8 million) per product and HLA-type for other programs (including the third target program); and

- commercialization milestones upon the first commercial sale of a product of up to £70.5 million ($89.5 million) per product and HLA-type for the NY-ESO Program and up to £80 million ($101.5 million) per product and HLA-type for other programs (including the third target program).

The development and regulatory milestones are per product milestones and are dependent on achievement of certain obligations, the nature of the product being developed, stage of development of product, territory in which an obligation is achieved and type of indication or indications in relation to which the product is being developed. In addition for any program, multiple products may be developed in the context of different HLA-types. As of 31 December 2019, we had achieved development milestones of $69.6 million.

For other programs (including the third target program) under the GSK Collaboration and License Agreement, an option fee is also payable of up to £6 million ($7.6 million) on exercise of the option by GSK, after which GSK is responsible for all development expenses.

For any product that is commercialized by GSK, the Company may receive tiered sales milestones up to £200 million ($253.8 million) per product and HLA-type and mid-single to low double-digit royalties on worldwide net sales of the applicable product. Royalties are payable while there is a jointly owned or solely owned valid patent claim covering the SPEAR T-cell in the country in which the relevant SPEAR T-cell is being sold and, in each case, for a minimum of 10 years from first commercial sale of the relevant TCR therapeutic. Sales milestones also apply once any TCR therapeutic covered by the GSK Collaboration and License Agreement is on the market.

On 7 September 2017, we announced that GSK had exercised its exclusive option for the NY-ESO SPEAR T-cell program. Transition of the program to GSK occurred during 2018. GSK has now assumed full responsibility for the NY-ESO SPEAR T-cell program including any ongoing clinical trials. As a result of the option exercise, Adaptimmune received £48 million (approximately $61 million) from GSK over the course of the transition period. This included development milestones of £18 million (approximately $23 million) and an option payment of £30 million (approximately $38 million), which also allows GSK to nominate two additional targets following completion of the transition. Successful continuation of development and subsequent commercialization of NY-ESO would trigger additional payments for development milestones, tiered sales milestones, and mid-single to low double-digit royalties on worldwide net sales.

Upon nomination of the third target program by GSK, we have granted to GSK an exclusive option to the nominated target which can be exercised up to four months after approval of an IND application in relation to a TCR therapeutic candidate directed against the nominated target. We are responsible for taking the third target program through preclinical testing and up to IND application filing. GSK is responsible for the IND filing itself should the preclinical testing and development be favorable.

Two other targets may be nominated by GSK at specified times under the GSK Collaboration and License Agreement, excluding any wholly-owned research programs already in progress by us. Upon nomination by GSK of any of these two additional targets, we will grant to GSK an exclusive option on each target, which can be exercised up to four months after approval of an IND application in relation to a TCR therapeutic candidate directed against the nominated target. Nomination also triggers the start of a collaboration program to develop the relevant TCR therapeutic candidate directed to the nominated target peptide.

Following exercise of any option (including the options for the NY-ESO SPEAR T-cell and third target programs), we will grant to (and have granted in relation to the NY-ESO SPEAR T-cell) GSK an exclusive worldwide license under intellectual property rights specific to the SPEAR T-cell developed under the relevant collaboration programs. GSK will, at its own expense, be fully responsible for all further development and commercialization of the relevant T-cell candidates. The licenses do not include a right for GSK to develop alternative affinity-enhanced TCRs using our intellectual property rights or to develop other TCR therapeutic candidates directed to different target peptides. Under the agreement, we are also prohibited from independently developing or commercializing T-cell therapeutics directed at the targets subject to outstanding options granted to GSK.

The GSK Collaboration and License Agreement is effective until all payment obligations expire, including any ongoing royalty payments due in relation to GSK's sale of any covered TCR therapeutic candidates. The agreement can also be terminated on a collaboration program-by-collaboration program basis by GSK for lack of feasibility or inability to meet certain agreed requirements. Both parties have rights to terminate the agreement for material breach upon 60 days' written notice or immediately upon insolvency of the other party. GSK has additional rights to terminate either the agreement or any specific license or collaboration program upon 60 days' written notice to us. Additional payments may be due to us as a result of such termination, and where we continue any development of any TCR therapeutic candidate resulting from a terminated collaboration program, depending on the stage of development, royalties may be payable to GSK at a mid-single-digit percentage rate of net sales. We also have rights to terminate any license where GSK ceases development or withdraws any licensed SPEAR T-cells in specified circumstances.

Preclinical and Clinical Collaborations

We have third party collaborations in place with Noile-Immune, Alpine Immune Sciences and Bellicum.

With Alpine, we are collaborating to develop next-generation SPEAR T-cell products that incorporate Alpine's secreted and transmembrane immunomodulatory protein technology. The collaboration agreement was announced in May 2019, and we believe that the Alpine technology will complement our existing internal next generation technology and enhance anti-tumour potential through engagement of further rapid and flexible immunomodulatory mechanisms. In the Noile-Immune collaboration, announced in August 2019, we will co-develop next-generation SPEAR T-cell products, incorporating Noile-Immune's PRIME (proliferation inducing and migration enhancing) technology, based upon co-expression of IL-7 and CCL19. Under the Bellicum collaboration we are evaluating Bellicum's GoTCR technology (inducible MyD88/CD40 co-stimulation, or iMC) with our SPEAR T-cells for the potential to create enhanced T-cell therapeutics.

We also have a strategic alliance agreement with the MD Anderson Cancer Center which covers both the conduct of certain clinical trials for our SPEAR T-cell therapies and also certain pre-clinical research work.

BUSINESS STRATEGY

Building on our leadership position with T-cell therapies in solid tumour indications, our strategic objective is to be a world leader in designing and delivering cell therapies that transform the lives of people with cancer. We have an ambition to have the first TCR T-cell approved for a solid tumour indication. In order to achieve our objectives, we are focused on the following:

Progressing our T-cell therapies through research and development. We continue to advance our T-cell therapies through development including our SPEAR T-cells which are in clinical trials in multiple tumour indications. In research, we are developing new cell therapies which we aim to advance into clinical trials, to treat different indications and patient populations, on completion of pre-clinical testing. For example, we are generating SPEAR T-cells, CAR-T and HLA independent TCR T-cells (''HiT'') against multiple tumour indications.

Advancing our cell therapies towards commercialization. Depending on data from Phase 1 clinical trials, we will rapidly progress clinical candidates through clinical trials and towards commercialization. For example, our ADP-A2M4 therapy is in a Phase 2 clinical trial, called SPEARHEAD-1, in North America, Canada, UK and the European Union for the treatment of patients with synovial sarcoma and MRCLS. Depending on the data obtained, we aim to progress quickly towards commercialization of ADP-A2M4 in these indications. Planning for commercialization of this therapy is in progress.

Continuing to develop 'off-the-shelf' cell immunotherapies. We are progressing with our allogeneic (or 'off the shelf') platform for the development of cell therapies, both internally and in collaboration with partners. We believe, using an "off-the-shelf" product will be transformative for patients. The platform is being developed to facilitate manufacture of multiple cell therapy products including TCR T-cells, CAR-T cells and other cell therapies.

Continuing to develop next-generation and combination approaches to further enhance our cell therapies. We continue to evaluate and work to understand the tumour micro-environment and the mechanism of action of our cell therapies in order to enhance them. We will continue to progress these approaches internally and through multiple external collaborations including those with Alpine and Noile-Immune. These approaches include next generation approaches like ADP-A2M4CD8, currently in the SURPASS Phase 1 trial, for which the aim is to

increase cytokine release and SPEAR T-cell potency, as well as combination approaches like our intended combination trial with a PD-1/ PD-L1 pathway inhibitor.

Continuing to improve our manufacturing and patient supply processes to optimize how we deliver our cell therapies to patients. We are continuing to enhance our T-cell and vector manufacturing processes at all stages of the process. Improvements may enhance the end cell therapy product and reduce overall turnaround time, all of which will enable us to treat patients quicker and more effectively.

Building an integrated cell therapy company capable of delivering our cell therapies to patients. We continue to build and develop our capabilities as an integrated cell therapy company across all activities required for researching, developing, manufacturing, supplying and commercializing our cell therapies. Having a fully integrated capability across all these areas enables flexibility and control.

Expanding our intellectual property portfolio. We intend to continue building on our technology platform, comprising intellectual property, proprietary methods and know-how in the field of cell therapies. These assets form the foundation for our ability to strengthen our product pipeline and to defend and expand our position as a leader in the field of cell therapies.

DEVELOPMENT AND PERFORMANCE DURING THE PERIOD

On 1 January 2019, the Group adopted *International Financial Reporting Standard ("IFRS") 16, Leases ("IFRS 16").* The comparative financial information for the year ended 31 December 2018 has not been restated and is prepared in accordance with the previous accounting guidance.

Revenue

Revenue decreased by 98% to $1.1 million for the year ended 31 December 2019 from $59.5 million for the year ended 31 December 2018. Revenue comprises the following (in thousands):

For the year ended 31 December	**2019**	**2018**	**Increase/decrease**	
Development revenue	$ 1,122	$ 20,391	$ (19,269)	(94)%
License revenue	—	39,114	39,114	N/A
	$ 1,122	**$ 59,505**	**$ (58,383)**	**(98)%**

The revenue recognised for the year ended 31 December 2019 is due to development work of products to the third target nominated by GSK under the GSK Collaboration and License Agreement. The development and license revenue for the year ended 31 December 2018 was recognised due to the performance under the NY-ESO transition program and the PRAME development plan, which were completed in 2018.

Future revenues will depend on the progress of the third target program, the development of programs for additional targets, and GSK's progress with the NY-ESO program, which are difficult to predict. We estimate that the remaining $2.1 million of revenue from the $3.2 million received following nomination of the third target should be recognised by the end of 2020.

Research and Development Expenses

Research and development expenses decreased by 6% to $108.5 million for the year ended 31 December 2019 from $115.2 million for the year ended 31 December 2018.

The net decrease in our research and development expenses of $6.7 million for the year ended 31 December 2019 compared to the year ended 31 December 2018 was primarily due to the following:

- an increase of $1.7 million in salaries, materials, equipment, depreciation of property, plant and equipment and other employee-related costs, due to a combination of factors including wage inflation, increased temporary staff costs, and an increase in the average number of employees engaged in research and development from 320 to 322

- a decrease of $8.8 million in subcontracted expenditures, including clinical trial expenses, contract research organization (CRO) costs and contract manufacturing expenses. This was primarily driven by a decrease in subcontracted expenses and clinical trial costs due to the transfer of NY-ESO to GSK in 2018

- an increase in expenditure of $1.9 million on manufacturing due to increased activity at our U.S. facility in Philadelphia and the development of a dedicated vector manufacturing capability in Stevenage, Hertfordshire, United Kingdom

- an increase of $5.0 million due to a provision for purchase commitments relating to the supply of the Dynabeads® CD3/CD28 technology. Management considered that there is sufficient uncertainty surrounding the utility of the Dynabeads, which is dependent upon current clinical trial plans, the Company's clinical pipeline, manufacturing methods and undetermined future projects, to result in the purchase commitment being recognised in Research and Development expenses in the period.

- a decrease of $6.5 million in share-based compensation expense due to forfeitures of share options

Our subcontracted costs for the year ended 31 December 2019 were $32.8 million, compared to $41.6 million in the same period of 2018, of which $18.5 million related to process development for our SPEAR T-cell platform and the remaining $14.3 million related to our wholly owned pipeline, including ADP-A2M4, ADP-A2M10 and ADP-A2AFP. Our research and development expenses are highly dependent on the phases and progression of our research projects and future clinical trial results and therefore fluctuate from period to period.

Administrative Expenses

General and administrative expenses decreased by 12% to $42.6 million for the year ended 31 December 2019 from $48.3 million in the same period in 2018.

The net decrease of $5.7 million was primarily due to forfeitures of share options and favourable realised foreign exchange differences on transactions.

Other Income

Other income relates to reimbursements of certain equity issue costs and other expenses through the U.K. Research and Development Expenditure Credit. Other income decreased by 29% to $1.0 million for the year ended 31 December 2019 from $1.4 million in the year ended 31 December 2018.

Finance Income

Finance income increased by $0.2 million to $3.0 million in the year ended 31 December 2019 compared to $2.8 million in the year ended 31 December 2018. Finance income comprises interest income and net unrealized foreign exchange gains.

Finance Expense

Finance expense decreased by $5.1 million to $2.9 million in the year ended 31 December 2019 from $8.0 million in the year ended 31 December 2018. Finance expense comprises net unrealized foreign exchange losses, and, following the transition to *IFRS 16, Leases* on 1 January 2019, interest costs on lease liabilities. The movement in finance expense is primarily due to a decrease in net unrealized foreign exchange losses in the year ended 31 December 2019 due to movements in foreign exchange rates.

Taxation credit

The taxation credit primarily relates to tax credits received under the U.K. Research and Development Scheme for small and medium sized entities (the "SME R&D Tax Credit") offset by income taxes arising in the U.S. tax jurisdiction. The taxation credit increased by $2.1 million to $18.3 million for the year ended 31 December 2019 from $16.2 million for the year ended 31 December 2018. As a result of the transition of the NY-ESO program to GSK in 2018, a higher proportion of our R&D expenses were eligible for the SME Tax Credit in the year ended 31 December 2019.

POSITION OF GROUP AT YEAR END

Liquidity and Capital Resources

Since our inception, we have incurred significant net losses and negative cash flows from operations. We financed our operations primarily through sales of equity securities, cash receipts under our GSK Collaboration and License Agreement, government grants and research and development tax and expenditure credits. From inception through to 31 December 2019, we have raised:

- $513.8 million of proceeds from issues of equity, net of issue costs;
- $151.4 million upfront fees, milestones and exercise fees under our GSK Collaboration and License Agreement;
- $2.8 million of income in the form of government grants; and
- $40.4 million in the form of U.K. research and development tax credits and receipts from the U.K. RDEC Scheme.

We use a non-GAAP measure, Total Liquidity, which is defined as the total of cash and cash equivalents, and marketable securities, to evaluate the funds available to us in the near-term. A description of Total Liquidity and reconciliation to cash and cash equivalents, the most directly comparable IFRS measure, are provided below under "Non-GAAP measures".

On 13 January 2020, we entered into a co-development and co-commercialization agreement with Astellas Pharma Inc. We received an upfront payment of $50.0 million in January 2020 under the agreement and we are entitled to receive research funding of up to $7.5 million per year. In addition, on 24 January 2020, the Company closed its underwritten public offering of its 21,000,000 American Depository Shares (ADSs) which together with the full exercise by the underwriter on 7 February 2020 of their option to purchase an additional 3,150,000 ADSs, generated net proceeds of approximately $89.8 million.

As at 31 December 2019, we had cash and cash equivalents of $50.4 million and Total Liquidity of $89.5 million. We believe that our Total Liquidity combined with the upfront payment and the recently completed public offering of ADSs described above will be sufficient to fund our operations, based upon our currently anticipated research and development activities and planned capital spending, into the second half of 2021.

During the year ended 31 December 2019, the Group incurred a net loss of $130.6 million, used cash of $106.1 million in its operating activities, and generated revenues of $1.1 million. The Group has incurred net losses in most periods since inception, and it expects to incur operating losses in future periods.

Management considers that there are no reasonable conditions or events, in the aggregate, that cast significant doubt about the Group's ability to continue as a going concern for a period of at least one year from the date the financial statements are issued.

SUMMARY OF CASH FLOWS

Operating Activities

Net cash used in operating activities increased by $1.9 million to $106.1 million for the year ended 31 December 2019 from $104.2 million for the year ended 31 December 2018. Net cash used in operating activities is significantly impacted by the timing of milestone payments received from GSK under the GSK Collaboration and License Agreement. In the year ended 31 December 2019, we received $3.2 million of milestone payments from GSK compared to $30.2 million in the year ended 31 December 2018. Excluding the GSK milestone payments and the associated VAT, the cash used in operations decreased in the year ended 31 December 2019. This was primarily due to higher subcontracted expenditure being incurred in 2018 under the GSK Collaboration Agreement.

Net cash used in operating activities of $106.1 million for the year ended 31 December 2019 comprised a net loss before tax of $148.9 million and lease interest paid of $1.8 million, offset by $9.5 million of favourable changes in operating assets and liabilities, noncash items of $15.6 million, net taxes received of $16.1 million, and interest received of $3.4 million. The noncash items consisted primarily of depreciation expense on plant and equipment of $7.2 million, amortization of intangibles of $0.8 million, share-based compensation expense of $8.3 million, and unrealised foreign exchange losses of $1.1 million, offset by other adjustments of $0.8 million and net interest income of $1.0 million.

Investing Activities

Net cash from investing activities was a cash inflow of $90.4 million and outflow of $17.6 million for the years ended 31 December 2019 and 2018, respectively.

Net cash from investing activities in the year ended 31 December 2019 included purchases of property and equipment of $1.6 million, acquisition of intangibles of $6.0 million, investment in financial assets at fair value through other comprehensive income with maturities greater than three months but less than 12 months of $27.3 million, offset by cash inflows from maturity or redemption of financial assets at fair value through other comprehensive income with maturities greater than three months but less than 12 months of $125.3 million. In the year ended 31 December 2019, the investments in marketable securities were reduced to fund the Group's ongoing operations.

Net cash from investing activities in the year ended 31 December 2018 included purchases of property and equipment of $3.9 million, acquisition of intangibles of $0.9 million, investment in financial assets at fair value through other comprehensive income with maturities greater than three months but less than 12 months of $150.8 million and cash inflows from maturity or redemption of financial assets at fair value through other comprehensive income with maturities greater than three months but less than 12 months of $138.0 million. In the year ended 31 December 2018, the Group invested surplus cash, including net proceeds from issuance of shares, in marketable securities.

Financing Activities

Net cash from financing activities was an outflow of $1.9 million and an inflow of $102.7 million for the years ended 31 December 2019 and 2018, respectively.

Net cash used in financing activities for the year ended 31 December 2019 consisted of principal payments of lease liabilities following the transition to *IFRS 16, Leases* on 1 January 2019 of $2.3 million, offset by proceeds from exercise of share options of $0.4 million.

Net cash provided by financing activities for the year ended 31 December 2018 consisted of $99.7 million net of issuance costs of $0.3 million, raised through a registered direct offering in September 2018 and proceeds from exercise of share options of $3.0 million.

KEY PERFORMANCE INDICATORS

Total Liquidity (a non-GAAP financial measure) is the total of cash and cash equivalents and marketable securities. Each of these components appears in the consolidated balance sheet. The IFRS financial measure most directly comparable to Total Liquidity is cash and cash equivalents as reported in the consolidated financial statements, which reconciles to Total Liquidity as follows (in thousands):

As of 31 December	**2019**	**2018**
Cash and cash equivalents	$ 50,412	$ 68,379
Marketable securities	39,130	136,755
Total Liquidity	**$ 89,542**	**$ 205,134**

We believe that the presentation of Total Liquidity provides useful information to investors because management reviews Total Liquidity as part of its management of overall liquidity, financial flexibility, capital structure and leverage. The definition of Total Liquidity includes marketable securities, which are highly-liquid and available to use in our current operations.

PRINCIPAL RISKS AND UNCERTAINTIES

Financial

We are a clinical-stage biopharmaceutical company with no products approved for commercial sale. We have not generated any revenue from any product sales or royalties. We have a history of losses and anticipate that we will incur continued losses for at least the next few years. We cannot be certain that we will achieve or sustain profitability and it is very difficult to predict any future financial performance. Our resources will continue to be devoted substantially to research and development for the foreseeable future and our ability to generate any revenue from any of our current therapeutic candidates cannot be guaranteed. We cannot be certain that additional funding will be available on acceptable terms, or at all. There is a risk that should we fail to obtain this additional funding we may have to significantly delay, scale back or discontinue the development or commercialization of our SPEAR T-cells, cell therapies or other research and development initiatives. Our license and supply agreements may also be terminated if we are unable to meet the payment obligations under these agreements. We could be required to seek collaborators for our SPEAR T-cells or other cell therapies at an earlier stage than otherwise would be desirable or on terms that are less favorable to us than might otherwise be available or relinquish or license on unfavourable terms our rights to our cell therapies in markets where we otherwise would seek to pursue development or commercialization ourselves. Our current cash projections include reliance on our ability to obtain certain tax credits and our ability to obtain or continue to obtain such tax credits cannot be guaranteed.

Dependence on Clinical Candidates

Our business is dependent on a small number of clinical candidates. There is no certainty that the results obtained in clinical trials of our existing clinical candidates will be sufficient to enable progression of those candidates through our clinical

programmes or the obtaining of regulatory approval or marketing authorisation. The results are initial patient results and there is no certainty that other patients will respond or that responses will continue. There can also be no guarantee that clinical candidates will progress through clinical programmes within anticipated timescales or that we will be able to recruit sufficient clinical trial subjects at all or within anticipated timescales. There is significant competition from third party trials in relation to the recruitment of patients. The outcome of clinical trials is inherently uncertain. Negative results seen in clinical programmes with one clinical candidate may impact on our other clinical programmes or prevent other clinical programmes from starting. T-cell therapy is a novel approach for cancer treatment which is not completely understood and the impact of such therapy cannot be predicted. Our clinical candidates may cause adverse events or fatalities which result in the suspension or halting of clinical programmes.

Research Programmes

We have a number of pre-clinical and other candidates (including next generation candidates) under development. Development of further candidates and pre-clinical assessment of those candidates takes a substantial amount of time, effort and money and we may encounter significant delays in taking further candidates into clinical programmes or in finding suitable further candidates to further develop.

Manufacturing

Manufacturing and administration of our cell therapies is complex and highly regulated. As a result we may encounter difficulties or delays in manufacture of cell therapies, testing and release of our cell therapies during or following manufacture, scaling up or further development of any part of our manufacturing process or any associated development activities. Given the complexity of the manufacturing processes, there is a risk that we will not be able to manufacture our cell therapies reliably or at acceptable costs or on required timescales. Any delays in our manufacture of cell therapies (whether at our own manufacturing facility or at our third party contract manufacturer's facility) can adversely affect a patient's outcomes and result in delays to our clinical trials. Delays or failures in our manufacturing process can result for a number of different reasons including failure in the process itself, lack of reliability in the process, inaccuracy or failure to produce test results or poor test results, product loss caused by logistical issues, inability to obtain manufacturing slots from our third party contract manufacturers, inability to procure starting materials, close-down of manufacturing facility (whether our own or a third party facility), contamination of starting materials, a requirement to modify or further develop the manufacturing process and supply chain failures or delays. There are additional risks associated with developing a commercially viable process including scaling of our manufacturing process to the levels required and sourcing of materials. Any delay or failure to develop a commercially viable process may delay the progression of our cell therapies into pivotal trials and our ability to commercialise those cell therapies.

The manufacture of our existing cell therapies is heavily reliant on third parties who are outside of our control. A delay or problem with any of our third party contract manufacturers or third party suppliers can result in delays to the overall manufacturing process, an inability to supply our therapeutics to clinical trial sites when required, and increased cost being incurred in the manufacture and supply of our cell therapies.

Our manufacturing process needs to comply with regulatory requirements in the United States, Canada, UK and certain countries in the European Union. Any failure to comply with the relevant regulatory requirements could result in delays in or termination of our clinical programmes or suspension or withdrawal of regulatory approvals for our cell therapies or manufacturing process (whether at our own facility or at the facility of any of our third party contract manufacturers).

Commercialisation

Our ability to commercialise any cell therapies is dependent on the progression of clinical candidates through regulatory approval processes and on the results seen in clinical trials. Clinical trials are expensive, time-consuming and difficult to implement and there is no guarantee that the results seen in any clinical trials will be sufficient to progress to the next stage of any clinical approval or ultimately to the obtaining of a marketing approval for any of our cell therapies.

The market opportunities for our cell therapies may be limited in terms of geographic scope or type of patients which can be treated. Our estimates of the potential patient population which can be treated may be inaccurate affecting the amount of revenue obtainable for any product. Likewise the amount of revenue that can be obtained in relation to any cell therapies may be impacted by the nature of pricing reimbursement coverage or schemes available or in place in any specific country and the continuation of such coverage and schemes. We currently have no marketing or sales force and we will have to establish a marketing capability prior to bringing any cell therapies to market. Even if we are successful in obtaining regulatory approval, our candidates may not gain market acceptance or utility.

In addition, we will face increasing competition from third parties as we proceed through clinical programmes, and such third parties may have more funding and resources than us, impacting on our end ability to bring our therapeutic candidates to market.

Regulation

Our clinical candidates are highly regulated and the regulatory process is lengthy and time-consuming. We may experience significant delays in obtaining regulatory approval or be required to make changes to our clinical programmes or therapeutic candidates by regulatory authorities. Our ability to obtain or maintain accelerated approval or orphan drug designation for any clinical candidate is difficult to predict and may require the development of additional processes or assays. Even if we are successful in obtaining regulatory approvals in one country, this does not mean that we will be successful in other countries and further clinical programmes may be required to obtain required regulatory approvals in such other countries. Should we obtain regulatory approval for any of our cell therapies we will be subject to ongoing regulatory obligations and requirements which may result in significant additional expense or delays to commercialisation of our products. Any failure to comply with regulatory requirements at any stage in the development of our cell therapies may harm our reputation and significantly affect our operating results.

We are also subject to regulation as a company both in the United Kingdom and the United States including in relation to financial controls, anti-bribery and other internal policies and controls. If we fail to establish and maintain proper internal controls our ability to comply with applicable regulations could be impaired.

Litigation

We face an inherent risk of product liability given the nature of our business and will face an even greater risk upon commercialisation of any candidates. We cannot guarantee that any insurance coverage we obtain will be sufficient to cover any product liability that arises. We may also face claims brought by third parties in relation to the way in which we run or manage our business, report the results of our business, or the impact our operations have on such third parties.

Third Parties

Commercialisation of certain of our cell therapies depends heavily on the ongoing collaborations with GSK and Universal Cells Inc.

Performance of the GSK Collaboration and License Agreement and the extent to which further targets are nominated under that agreement depend on decisions taken by GSK. We have no control over whether GSK will elect to progress additional targets under the collaboration arrangements and therefore trigger additional payments from GSK under the GSK Collaboration and License Agreement. GSK also has the ability to influence or control decisions taken in relation to the development of any cell therapies covered by the agreement.

The collaboration agreement with Universal Cells Inc entered into in January 2020 requires mutual agreement on which targets will be developed under the collaboration. It is likely to take time to select and agree these targets. Until a target is agreed, a research program cannot be implemented for that target. Delays in agreeing research programs under the collaboration may impact our ability to receive research funding and may also impact development of our underlying "off-the-shelf" platform. Development of iPSC derived cell therapies under the collaboration agreements with Universal Cells relies on the performance by Universal Cells Inc. and other members of the same group of companies and there can be no

assurance that such performance will be provided on a timely basis or that any cell therapies resulting from the performance of the collaboration will proceed through research, development and in to clinical trials.

We also rely heavily on and are dependent on ThermoFisher Scientific Inc. ("ThermoFisher") and the technology we obtain from them for the activation and expansion of T-cells. Inability to obtain the relevant technology from ThermoFisher would cause delays to our clinical programmes and our ability to manufacture, supply and administer our TCR therapeutic candidates. We also rely heavily on third parties to conduct our clinical trials including universities, medical institutions, Contract Research Organisations ("CROs") and other clinical supply organisations.

Intellectual Property

We may be forced to litigate to enforce or defend our intellectual property rights and to protect our trade secrets. We may also not be able to obtain suitable protection for our technology or products, or the cost of doing so may be prohibitive or excessive. We cannot provide any assurance that the intellectual property rights that we own or license provide protection from competitive threats or that we would prevail in any challenge mounted to our intellectual property rights. Third parties may claim that our activities or products infringe upon their intellectual property which will adversely affect our operations and prove costly and time-consuming to defend against. We have licensed, and expect to continue to license, certain intellectual property rights from third parties. We cannot provide any assurances that we will be successful in obtaining and retaining licences or proprietary or patented technologies in the future. Further, our products may infringe the intellectual property rights of others and we may be unable to secure necessary licences to enable us to continue to manufacture or sell our products.

Suppliers

We depend upon a limited number of suppliers, and certain components or raw materials for our cell therapies may only be available from a sole source or limited number of suppliers. Even if the key components that we source are available from other parties, the time and effort involved in obtaining any necessary regulatory approvals for substitutes could impede our ability to replace such components timely or at all. The loss of a sole or key supplier would impair our ability to deliver products to our patients or clinical sites in a timely manner, adversely affect our sales and operating results and negatively impact our reputation.

Employees

We rely on the ongoing involvement of certain key employees. Our ability to further progress our clinical candidates and develop further clinical candidates is dependent on our ability to grow the size and capabilities of our organisation and we may experience difficulties in managing this growth or achieving this growth within anticipated timescales.

Facilities

If any of our existing facilities or any future facilities, infrastructure or our equipment, including our information technology systems, were damaged or destroyed, or if we experience a significant disruption in our operations for any reason, our ability to continue to operate our business could be materially harmed. For example, if our US facility or infrastructure was damaged or destroyed we may be unable to make certain cell therapies until an alternative manufacturer has been found. We maintain insurance coverage against damage to our property and equipment and business interruption and research and development.

Brexit

The United Kingdom formally exited the European Union, commonly referred to as Brexit, on 31 January 2020. Under the terms of its departure, the United Kingdom will enter a transition period during which it will continue to follow all European Union rules and the trading relationship will remain the same. The transition period is scheduled to end on 31 December 2020. The long term effects of Brexit will depend on the agreements or arrangements the United Kingdom makes with the European Union including whether it will retain access to the European Union markets either during a transitional period or more permanently. There will be 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 these negotiations continue to unfold. As a result of this uncertainty, financial markets could experience volatility which could adversely affect the market price of our ADSs. Depending on the final terms of Brexit and the agreements or arrangements negotiated with the European Union and potentially during the transition period, we may also face new regulatory costs and challenges or require additional resources that could have a material adverse effect on our operations, including the potential for a delay in our clinical progress and approvals in Europe.

FINANCIAL RISK MANAGEMENT

The Group is exposed to market risks in the ordinary course of our business, which are principally limited to interest rate fluctuations, foreign currency exchange rate fluctuations, particularly between pound sterling and U.S. dollar, and credit risk. These risks are managed by maintaining an appropriate mix of cash deposits and securities in various currencies, placed with a variety of financial institutions for varying periods according to expected liquidity requirements.

As of 31 December 2019, we held $39.1 million in marketable securities, with the aim of diversifying our investments and reducing credit risks. We have not entered into investments for trading or speculative purposes.

Interest Rate Risk

The Group's surplus cash and cash equivalents are invested in interest-bearing savings, money market funds, corporate debt securities and commercial paper from time to time. The Group's investments in corporate debt securities are subject to fixed interest rates. The Group's exposure to interest rate sensitivity is impacted by changes in the underlying U.K. and U.S. bank interest rates and the fair market value of our corporate debt securities will fall in value if market interest rates increase. Management does not believe an immediate one percentage point change in interest rates would have a material effect on the fair market value of our portfolio, and therefore does not expect the operating results or cash flows to be significantly affected by changes in market interest rates.

Currency Risk

The Group is exposed to foreign exchange rate risk because we currently operate in the United Kingdom and the United States. The Group's revenue from the GSK Collaboration and License Agreement is denominated in pounds sterling and is generated by the U.K.-based subsidiary, which has a pounds sterling functional currency. As a result, these sales are subject to translation into U.S. Dollars when the Group consolidates its financial statements. The Group's expenses are generally denominated in the currency in which the operations are located, which are the United Kingdom and the United States. However, the U.K.-based subsidiary incurs significant research and development costs in U.S. dollars and, to a lesser extent, Euros.

The results of operations and cash flows will be subject to fluctuations due to changes in foreign currency exchange rates, which could harm our business in the future. The Group seeks to minimize this exposure by maintaining currency cash balances at levels appropriate to meet foreseeable expenses in U.S. dollars and pounds sterling. To date, the Group has not used forward exchange contracts or other currency hedging products to manage exchange rate exposure, although it may do so in the future. The exchange rate as of 31 December 2019, the last business day of the reporting period, was £1.00 to $1.31.

Credit Risk

The Group's cash and cash equivalents are held with multiple banks and the Group monitors the credit rating of those banks. The investments in corporate debt securities and commercial paper are subject to credit risk. The Group's investment policy limits investments to certain types of instruments, such as money market instruments, corporate debt securities and commercial paper, places restrictions on maturities and concentration by type and issuer and specifies the minimum credit ratings for all investments and the average credit quality of the portfolio.

Trade receivables were $nil and $0.2 million as of 31 December 2019 and 2018, respectively. Trade receivables arise in relation to the GSK Collaboration and License Agreement. We have been transacting with GSK since 2014, during which time no impairment losses have been recognised.

Going Concern

The Group's financial position, including its cash flows and liquidity position, are fully described in the consolidated financial statements. As of 31 December 2019, the Group had cash and cash equivalents of $50.4 million, marketable securities of $39.1 million, and stockholders' equity of $134.1 million. On 13 January 2020, the Group entered into a co-development and co-commercialization agreement with Astellas Pharma Inc. and received an upfront payment of $50.0 million in January 2020 under the agreement. The Group is also entitled to receive research funding of up to $7.5 million per year. In addition, on 24 January 2020, the Company closed an underwritten public offering of 21,000,000 of its American Depository Shares (ADSs), which, together with the full exercise by the underwriters on 7 February 2020 of their option to purchase 3,150,000 additional ADSs, generated net proceeds of $89.8 million.

During the year ended 31 December 2019, the Group incurred a net loss of $130.6 million, used cash of $106.1 million in its operating activities, and generated revenues of $1.1 million. The Company has incurred net losses in most periods since inception, and it expects to incur operating losses in future periods. We believe that our cash, cash equivalents and marketable securities combined with the upfront payment and the recently completed public offering of ADSs described above, will be sufficient to fund our operations, based upon our currently anticipated research and development activities and planned capital spending.

Having reviewed cash flow forecasts for at least the 12 month period following the date of signing the financial statements, the Directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for a period of not less than 12 months from the signing of these financial statements.

ENVIRONMENTAL MATTERS

Our operations require the use of hazardous materials, which, among other matters, subjects us to a variety of federal, state, local and foreign environmental, health and safety laws, regulations and permitting requirements, including those relating to the handling, storage, transportation and disposal of biological and hazardous materials and wastes. The primary hazardous materials we handle or use include human blood samples and solvents. Some of the regulations under the current regulatory structure provide for strict liability, holding a party liable for contamination at currently and formerly owned, leased and operated sites and at third-party sites without regard to fault or negligence. We could be held liable for damages and fines as a result of our, or others', operations or activities should contamination of the environment or individual exposure to hazardous substances occur. We could also be subject to significant fines for failure to comply with applicable environmental, health and safety requirements. We cannot predict how changes in laws or development of new regulations will affect our business operations or the cost of compliance.

GREENHOUSE GAS REPORT

Our greenhouse gas emissions estimates for 2019 and 2018 have been prepared in accordance with the U.K. Government's Department for Environment, Food and Rural Affairs (Defra) guidance document "Environmental Reporting Guidelines: Including Mandatory GHG emissions reporting guidance, from June 2013".

Greenhouse Gas Emissions for the Group

Period	Year ended 31 December 2019	Year ended 31 December 2018
Source	**Tonnes carbon dioxide equivalent (tCO2-e)**	**Tonnes carbon dioxide equivalent (tCO2-e)**
Estimated greenhouse gas emissions from our own activities, including the combustion of fuel and the operation of our facilities	0.00	0.00
Estimated greenhouse gas emissions from purchased electricity, heat, steam or cooling for own use	3,459.94	3,263.63
Total estimated greenhouse gas emissions	**3,459.94**	**3,263.63**
Intensity ratio: Total greenhouse gas emissions per employee on the basis of the average number of 410 full-time equivalent employees during the year ended 31 December 2019 (2018: 409).	**8.438**	**8.038**

We have used the most recent evidence or estimates provided by our energy supply partners to generate our disclosure of emissions for the period. These include the purchase of electricity, heat, steam or cooling. Standard emissions factors from Defra's GHG Conversion Factor Repository were applied to estimate emissions. The Group considers that the intensity ratio of tonnes of carbon dioxide per full-time equivalent employee is a suitable metric for its operations.

Electricity usage at our leased facilities in the United States and the United Kingdom drive the majority of our greenhouse gas emissions. Our estimates reflect the use of coolant gasses for refrigeration purposes at our laboratories in Oxfordshire. The increase in greenhouse gas emissions in the year ended 31 December 2019 compared to the year ended 31 December 2018 is driven by several factors, including the acquisition of an additional office in the United Kingdom. The Group actively looks to minimise indirect areas of emissions by enabling remote working and promoting online conferencing facilities to reduce business travel.

EMPLOYEES

As at 31 December 2019, we had 400 employees (including our Chief Executive Officer who is also a Company Director), compared to 430 as at 31 December 2018. Of these employees, 315 were in R&D (including in manufacturing and operations, and quality control and quality assurance) and 85 were in management and administrative functions (including business development, finance, intellectual property, and information technology and general administration). The average number of full-time equivalent employees during the year ended 31 December 2019 was 410 (*year ended 31 December 2018: 409*). We have never had a work stoppage and none of our employees are covered by collective bargaining agreements or represented by a labour union. We believe our employee relations are good.

Diversity

Appointments within the Group are made on merit according to the balance of skills and experience offered by prospective candidates. Whilst acknowledging the benefits of diversity, individual appointments are made irrespective of personal characteristics such as race, disability, gender, sexual orientation, religion or age.

A breakdown of the employment statistics on the basis of employees as at 31 December 2019 is as follows:

Position	Male	Female	Total
Company Director (1)	9	1	10
Senior Manager	3	1	4
Other Employees	166	229	395
Total Employees (2)	169	230	399

(1) Includes our Chief Executive Officer
(2) Excludes our Chief Executive Officer

EMPLOYEE CONSULTATION AND HUMAN RIGHTS

The Group places considerable value on the involvement of its employees. Meetings are held with employees to discuss the operations and progress of the business and employees are encouraged to become involved in the success of the Group through share option schemes (see note 25 to the financial statements).

The Group endeavours to impact positively on the communities in which it operates. The Group does not, at present, have a specific policy on human rights. However, we have several policies that promote the principles of human rights. We will respect the human rights of all our employees, including: provision of a safe, clean working environment; ensuring employees are free from discrimination and coercion; not using child or forced labour and respecting the rights of privacy and protecting access and use of employee personal information. We also have an equal opportunities policy which promotes the right of every employee to be treated with dignity and respect and not to be harassed or bullied on any grounds.

SECTION 172 (1) STATEMENT

Introduction

Section 172(1) of the Companies Act 2006 sets out the director's duty to promote the success of the company. It provides that a director of a company must act in the way he/she considers, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole, and in doing so have regard (amongst other matters) to:

a. The likely consequences of any decision in the long term

b. The interests of the company's employees

c. The need to foster the company's business relationships with suppliers, customers and others

d. The impact of the company's operations on the community and the environment

e. The desirability of the company maintaining a reputation for high standards of business conduct, and

f. The need to act fairly as between members of the company.

This section describes how the Directors have had regard to the matters set out in Section 172 (1) (a) to (f) when performing their duty to promote the success of the company.

Our strategy

As set out in the Business strategy section earlier in our Strategic Report, building on our leadership position with T-cell therapies in solid tumour indications, our strategic objective is to be a world leader in designing and delivering cell therapies that transform the lives of people with cancer. We have an ambition to have the first TCR T-cell approved for a solid tumour indication.

Key stakeholder groups

Our key stakeholder groups and methods of engagement are designed to support our business strategy. Understanding our stakeholders enables their interests and the potential impact of decisions on them to be considered during Board discussions.

Our key stakeholder groups, their material interests and our engagement with them, as a company and through the Board, are summarised in the following table. As noted below, Board engagement may frequently occur through our CEO, who is a Director, and our executive team members and other senior managers where appropriate. Effective from 1 September 2019, Adrian Rawcliffe (formerly, our CFO) was appointed as our CEO and a Director. Prior to 1 September 2019, our CEO was James Noble who was also a Director. Mr Noble continues to serve as a Non-Executive Director.

Summary of key stakeholder groups and engagement

People with cancer	
Their interests	• To find a potential therapy to cure or alleviate their condition or improve quality of life • To contribute to research into potential new cell therapies
How we engage	• Engagement is primarily through the Principal Investigators and sub-investigators performing our clinical trials and who represent the patients on our clinical trials • We meet with certain patient groups applicable to particular cancer indications • We attend conferences relevant to cancer to share information from our clinical trials and engage with others in the cancer field • A dedicated Patient and Family area on our website provides resources • We support initiatives such as Cancer Immunotherapy Month
How the Board engages	• Our CEO and other members of our leadership team meet with members of the clinical site study conduct teams and other key stakeholders at clinical sites • Regular reports concerning our clinical trials presented at Board meetings, with key updates as required

Hospital sites for our clinical trials	
Their interests	• Improved scientific knowledge, education and awareness in relation to the applicable cancer indications including the ability to communicate improvements in the field to others • Ability to treat patients with new cell therapies, as part of our clinical trials, and to understand and assess the impact of those cell therapies on people with cancer • Safety and training in procedures used for administration of our cell therapies
How we engage	• Our clinical operations team directly builds and maintains relationships with hospital sites running our clinical trials and, in particular, with the clinical teams engaged with those clinical trials • Training is provided by our clinical operations team as part of the activation process for all clinical sites participating in our clinical trials • Publication and presentation opportunities are provided to investigators at clinical sites as clinical data emerges • We share translational and other emerging data with investigators at clinical sites in order to improve the experience for those investigators and for patients
How the Board engages	• Regular reports presented at Board meetings, with key updates as required • Reports presented to Board include summaries from Scientific Advisory Board (SAB) meetings. Our SAB is comprised of individuals with experience in the cancer field who meet with members of our executive team, clinical operations team and R&D team • Material findings from Safety Advisory Board are included in Board reports. The Safety Advisory Board comprises third party individuals with experience in cancer field who meet to discuss safety data and ensure that clinical trials progress with a favourable risk:benefit profile for patients
Regulators	
Their interests	• Patient safety and compliance with regulations
How we engage	• Our regulatory team engages directly with regulatory authorities in multiple jurisdictions • Where relevant, our regulatory team engages with regulators ahead of any formal approvals for trial designs to discuss the trial design and anticipated next steps with regulatory agencies
How the Board engages	• Regular reports presented at Board meetings, with key updates as required

Employees	
Their interests	• Ability, through their work, to enable and support the development of cell therapies that could potentially make a difference to people with cancer • Training, development and prospects • Health and safety and working conditions • Diversity and inclusion • Fair pay, benefits and share plans
How we engage	• As of 31 December 2019, we had 400 employees working out of facilities in Oxfordshire and Stevenage in the UK and Philadelphia in the USA. • Our new CEO, Adrian Rawcliffe, conducted a listening tour in 2019 that included meetings offered to all employees to seek feedback on company status and development. Almost all employees took up this opportunity. This enabled input to development of the company's mission statement: "to transform the lives of people with cancer by designing and developing cell therapies" • Management development training including "Lunch and Learn" sessions • Executive training programme for senior leaders • Project First programme enhances collaborations across departments and ensures multi-function approaches to critical projects • Health and safety committee led by employees and attended by executive team members • Recruitment policy focused on merit and ability has attracted highly-skilled employees representing approximately 27 different nationalities • Performance based reward; bonus scheme and share option plans open to all employees • Staff intranet with multiple articles covering the business; weekly newsletter • Global town halls with our CEO, executive team and employees as presenters • Q&A sessions with CEO and executive team • CEO video message updates • Corporate Huddles and Monthly Mingles provide informal opportunities for local office groups in the UK and USA to share and discuss updates with our CEO and executive team in person

	• Open plan working environment, combined with meeting spaces, provides a flexible infrastructure that fosters daily collaboration along with the capacity for team meetings and confidential discussions
How the Board engages	In addition to the engagement by our CEO, who is a Director, outlined above: • Board meetings are held at the company's facilities in the UK and USA • Board members hold one-to-one meetings with managers • Employees are invited to present at Board meetings and/or attend for discussion of matters relating to their specialist area • VP, Human Resources attends all Board Remuneration Committee meetings and provides reports on employee matters • Board also receives reports on employee matters
Shareholders	
Their interests	• Comprehensive view of financial and sustainable performance of the business • Share price
How we engage	• Regular reporting on the Group's performance, including through our Annual and Quarterly Reports and press releases • Investor Relations website • Investor conferences and roadshows • Annual General Meeting
How the Board engages	• Regular reports on investor and analyst feedback • Quarterly conference calls hosted by our CEO and executive team • Regular one-to-one meetings and calls with our CEO and executive team • In 2019, our new CEO held a "listening tour" involving meetings with investors

Partners	
Their interests	• Development of new or enhanced technologies
How we engage	• Strategic collaborations and licensing agreements • Senior management engagement with partner senior management during negotiations and beyond • Alliance management process in place for all strategic alliances to ensure effective operation of relationship with partners • Joint steering committee meetings and other committee meetings held regularly once collaboration is underway • CEO and executive team member visits to partners and visits by partner senior management to Adaptimmune
How the Board engages	• Regular reports presented at Board meetings on progress of collaborations • Scoping out of relationship and material changes to relationship are approved by Board and executive team
Suppliers	
Their interests	• Efficient and trusted relationship • Ongoing successful supply relationship
How we engage	• Supplier policies and supplier agreements in place with all material suppliers • Dedicated internal function to manage supplier relationships with material suppliers • Regular audits of material suppliers to ensure consistency of supply and compliance with supplier requirements • Visits to engage with suppliers including in relation to new technology developments • Technology collaborations and trials of new technologies are undertaken where appropriate
How the Board engages	• Regular reports presented at Board meetings for major suppliers • Senior management engagement with supplier senior management for material suppliers • CEO and executive team member visits to suppliers and visits by supplier senior management to Adaptimmune

Communities and environment	
Their interests	• Safe environment • Sustainable employer
How we engage	• Presentations at local schools and colleges • Internships • Membership of local and regional networks • Direct engagement locally with MPs and local and regional councils • Bike to Work schemes in place at our offices • Car share programme available at our Oxfordshire facility • Recycling programme in place at our offices • Travel policy focused on essential travel and encouragement of alternative forums for meetings other than physical meetings • Videoconferencing facility and Skype meetings encouraged
How the Board engages	• Supports ongoing investment in videoconferencing infrastructure as part of Budget review • High proportion of Board committee meetings held by videoconference and teleconference

Illustrative examples

Examples of consideration of stakeholder interests during Board discussions and decisions are provided below.

Initiation of a Phase 2 SPEARHEAD-1 trial with ADP-A2M4 in synovial sarcoma and MRCLS (SPEARHEAD-1)

- A Phase 2 clinical trial in synovial sarcoma and MRCLS was announced in May 2019. The trial will take place at sites in the United States, Canada and Europe and include up to 60 patients at a selected dose of up to 10 billion transduced ADP-A2M4 SPEAR T-cells.

- In deciding to proceed with this trial, the Board considered the interests of, and potential impact on, patients, hospital sites, employees, suppliers and shareholders during discussions of recommendations regarding potential study plans, including resourcing and expenditure. The senior executive team and the Board held an additional briefing session prior to the Board meeting.

Initiation of a new Phase 1 trial with ADP-A2M4CD8 (SURPASS)

- A Phase 1 trial for a next generation SPEAR T-cell, ADP-A2M4CD8 was initiated during 2019. The SURPASS trial will enrol up to 30 patients across multiple solid tumour indications.

- In deciding to proceed with this trial, the Board considered the interests of, and potential impact on, patients, hospital sites, employees, suppliers and shareholders during discussions of recommendations regarding potential study plans, including resourcing and expenditure. The senior executive team and the Board held an additional briefing session prior to the Board meeting.

Material agreements

- In 2019, we announced agreements with Alpine Immune Sciences Inc and Noile-Immune Biotech Inc relating to the development of further next-generation approaches. On 13 January 2020 we entered into a co-development and co-commercialization agreement with Universal Cells Inc, a wholly owned subsidiary of Astellas, relating to the development of stem-cell derived 'off-the-shelf' CAR-T and TCR T-cell therapies.

- In deciding to proceed with approval of these agreements, the Board considered the key terms of the agreements and their potential economic impact on shareholders as well as the potential benefits for cancer patients, hospital sites and shareholders that may ultimately result from the development of further next-generation approaches and development of stem-cells derived 'off-the-shelf' CAR-T and TCR T-cell therapies. The impact on suppliers and employees was also considered during discussions.

Underwritten public offering

- On 24 January 24, 2020, the Company closed an underwritten public offering of 21,000,000 American Depository Shares (ADSs) which, together with the full exercise by the underwriters on 7 February 2020 of their option to purchase an additional 3,150,000 ADSs, generated net proceeds of approximately $89.8 million, after deducting underwriting discounts and commissions and other estimated offering expenses.

- In deciding to proceed with the underwritten public offering, the Board considered the interests of shareholders, including the potential dilution impact, and the benefits for shareholders, cancer patients, employees and suppliers from securing additional funding to extend the company's cash runway and enable advancement of the development of its immunotherapies.

The Directors continue to be committed to having regard to the matters set out in Section 172 (1) (a) to (f) when performing their duty to promote the success of the company.

The Strategic Report was approved by the Board on 26 February 2020.

On behalf of the Board

Adrian Rawcliffe
Director

2 March 2020

Remuneration Committee Chairman's Statement

On behalf of the Board of Directors of Adaptimmune Therapeutics plc, I am pleased to present the Directors' Remuneration Report for the year ended 31 December 2019. Shareholders will be invited to approve the Report on Remuneration (which will be a non-binding advisory vote) at the Annual General Meeting of shareholders to be held on 18 June 2020.

Period Covered by the Directors' Remuneration Report

The Directors' Remuneration Report that follows is for the full year period from 1 January 2019 to 31 December 2019 except where otherwise stated.

The Remuneration Committee

The Committee is responsible for reviewing and establishing our executive remuneration policy and philosophy, including making recommendations regarding the remuneration of our Chief Executive Officer ("CEO") to the Board for its approval, and determining and approving the remuneration of other senior executive officers. While the Board sets the remuneration of our CEO, who is our sole Executive Director, the Committee makes recommendations on such matters to the Board.

Philosophy

We seek to attract and retain outstanding employees who have the potential to support the growth of the Group and to attract and retain Non-Executive Directors who can substantially contribute to our success as an innovative, clinical-stage biopharmaceutical company. As the Group has operations in the United Kingdom and the United States, our senior executives and our Non-Executive Directors live and work in the U.K. and the U.S., and we are listed on a U.S. stock exchange, we assess the competitiveness of our policies against both U.K. and U.S. benchmarks and practices, with an increasing focus on U.S. benchmarks and practices.

Business Strategy during 2019

Our primary goal in 2019 was to progress the development of the Group including:

- the advancement of our clinical trials for ADP-A2M4 and ADP-A2AFP;
- completion of enrolment of our clinical trial for ADP-A2M10;
- continuing to use our SPEAR T-cell platform to generate SPEAR T-cells for cancers where existing therapeutic approaches are limited;
- continuing to understand, further enhance and improve the effectiveness and persistence of our SPEAR T-cell therapies; and
- the optimisation and expansion of our process development and manufacturing capabilities to maintain our leadership position in the TCR space and the continued expansion of our intellectual property portfolio.

2019 Business Highlights

2019 was a year of strong operational performance for Adaptimmune.

Key business highlights during 2019 included:

Advancement of our existing clinical trials for ADP-A2M4 and ADP-A2AFP

- A Phase 1 clinical trial for ADP-A2M4 in multiple tumour indications (urothelial, melanoma, head and neck, ovarian, NSCLC, oesophageal and gastric cancers, synovial sarcoma and MRCLS) completed enrolment in early 2020.

- As of 23 October 2019, data from 14 evaluable patients with synovial sarcoma treated in the expansion phase of this trial demonstrated an overall response rate of 50% (including both confirmed and unconfirmed partial responses (PRs)). 13 out of 14 evaluable patients had evidence of disease control (with best overall responses of partial response (7 patients) or stable disease (7 patients)). A clinical update was provided at the Connective Tissue Oncology Society in November 2019.

- Beyond synovial sarcoma, tumour shrinkage has been observed in patients with melanoma and ovarian cancers and a partial response was reported in a head and neck cancer patient.

- A radiation sub-study under the Phase 1 clinical trial is continuing at the MD Anderson Cancer Center. The sub-study will treat up to 10 patients and has a primary endpoint of safety, with RECIST v1.1 responses being a secondary endpoint.

- We continue dosing patients in our Phase 1, open-label, dose-escalation study designed to evaluate the safety and anti-tumour activity of our alpha fetoprotein (''AFP'') therapeutic candidate (ADP-A2AFP) for the treatment of hepatocellular carcinoma, or HCC. The trial is open in the United States, United Kingdom and the European Union. Patients are now enroling in Cohort 3 and are being treated with target doses of 5 billion SPEAR T-cells (range 1.2 to 6 billion). The first patient treated in this cohort had a confirmed PR (decrease of 100% in target lesions). Most adverse events to date are consistent with those typically experienced by cancer patients undergoing cytotoxic chemotherapy or other cancer immunotherapies.

Completion of enrolment in our ADP-A2M10 trial

- Two Phase 1 clinical trials were conducted with ADP-A2M10 for the treatment of (i) NSCLC, and (ii) urothelial, melanoma and head and neck cancers in the United States, Canada, the United Kingdom and Spain. Enrolment in these trials closed as planned in 2019.

Initiation of a Phase 2 SPEARHEAD-1 trial with ADP-A2M4 in synovial sarcoma and MRCLS

- Based on the data seen in the Phase 1 clinical trial with ADP-A2M4, a Phase 2 clinical trial was announced in synovial sarcoma and MRCLS in May 2019. The trial will take place at sites in the United States, Canada and Europe. The trial will include up to 60 patients at a selected dose of up to 10 billion transduced ADP-A2M4 SPEAR T-cells. Primary responses will be assessed by overall response rate by RECIST v1.1 ("Response Evaluation Criteria In Solid Tumours v1.1"). The lymphodepletion regimen will be fludarabine (30mg/m2/day) for 4 days and cyclophosphamide (600 mg/m2/day) for 3 days.

Initiation of a new Phase 1 trial with ADP-A2M4CD8

- A Phase 1 trial for a next generation SPEAR T-cell, ADP-A2M4CD8 was initiated during 2019. This next generation SPEAR T-cell utilizes the same engineered T-cell receptor as ADP-A2M4, but with the addition of a CD8α homodimer. The addition of the CD8α homodimer has been shown in vitro to increase cytokine release and SPEAR T-cell potency. The SURPASS trial will enrol up to 30 patients across multiple solid tumour indications. Similar to our other trials, the SURPASS trial will be a three-cohort dose escalation study.

Optimization and expansion of our manufacturing capabilities

- Our own dedicated vector manufacturing capability in the United Kingdom, within the Catapult Cell and Gene Therapy Manufacturing Centre in Stevenage, is now able to produce vector for our Phase 1 clinical trials. The first batch of GMP vector was completed in Q4 of 2019 and is pending final quality release testing. Control of our own end-to-end manufacturing process (including vector, T-cell and analytical quality control testing) enables us to improve and further develop our processes for manufacture of our cell therapies.

- We have the goal of reducing the time between apheresis of a patient and return of affinity enhanced SPEAR T-cells back to the patient. During 2019, we made a number of changes to our current SPEAR T-cell manufacturing

process and are continuing to make changes. We are now able to manufacture SPEAR T-cells with a 25 day processing time and we continue to optimise further.

Progression of our pre-clinical pipeline

- We continue to progress development of new SPEAR T-cells and other cell therapies including HLA-independent TCRs (HiTs) and CAR-Ts directed to new targets and to targets expressed in the context of HLA-types other than HLA-A2. As part of our preclinical development we also have multiple development programs ongoing both internally and with third party collaborators to develop various approaches to enhance our cell therapy products.

Other corporate achievements

- In 2019, we announced agreements with Alpine Immune Sciences Inc and Noile-Immune Biotech Inc relating to the development of further next-generation approaches. On 13 January 2020 we entered into a co-development and co-commercialization agreement with Universal Cells Inc, a wholly owned subsidiary of Astellas, relating to the development of stem-cell derived 'off-the-shelf' CAR-T and TCR T-cell therapies.

- On 24 January 2020, the Company completed the initial closing of an underwritten public offering and sold 21,000,000 ADSs at a price to the public of $4.00 per ADS, generating net proceeds of approximately $78.1 million, after deducting underwriting discounts and commissions and estimated offering expenses payable by Adaptimmune. On 7 February 2020, the Company announced that the underwriters had exercised in full their option to purchase an additional 3,150,000 ADSs at a price to the public of $4.00 per ADS, generating additional net proceeds of approximately $11.7 million, after deducting underwriting discounts and commissions and estimated offering expenses. After giving effect to the option exercise, the Company sold a total of 24,150,000 ADSs in connection with the offering, generating net proceeds of approximately $89.8 million, after deducting underwriting discounts and commissions and other estimated offering expenses.

Activities and major decisions

The year saw the succession of Adrian Rawcliffe, formerly our Chief Financial Officer, to the CEO role and the transition of James Noble from the CEO role to become a non-executive director, with both changes occurring on 1 September 2019. Adrian Rawcliffe was also appointed as a director effective from the same date. Consequently, the Committee's activities during the year included developing remuneration arrangements in connection with the CEO succession and James Noble's transition, which were approved by the Board. The Committee engaged Willis Towers Watson as independent advisors to benchmark CEO compensation associated with the succession.

The Committee's other activities during the year included a benchmarking review of executive compensation, which was undertaken to ensure that remuneration for the senior executive team remains competitive for the purposes of retention and engagement. The Committee engaged Willis Towers Watson to benchmark executive compensation against a selected peer group consisting largely of comparable U.S.-listed biopharmaceutical companies, with some U.K.-listed biopharmaceutical companies, and to provide recommendations for base salaries, equity based awards and the structure of bonus incentive awards for 2020.

As a result of this benchmarking exercise, our CEO and senior executive officers received increased base salaries at levels that remain compliant with the last approved Directors' Remuneration Policy. For our CEO, this resulted in a base salary of £432,636 effective from 1 January 2020, to maintain competitive positioning against the peer group.

For the purposes of this report the remuneration paid in US dollars to our CEO, who is resident in the United States, has been translated into pounds sterling based on the US dollar/pound sterling exchange rate at 31 December 2019 ($1.32675 to £1).

In December 2019 the Committee also considered the extent of achievement of 2019 calendar year objectives by the executive team and determined the level of bonus incentive awards payable in respect of the 2019 calendar year. The awards made to our CEO and senior executive officers recognised that a significant proportion of our corporate objectives for 2019 were achieved, with our CEO receiving a bonus award at 70% of the target amount.

In December 2019 the Committee approved the objectives to be achieved by the executive team during 2020. These are considered to be commercially sensitive and will not be disclosed in detail, but are designed to support achievement of our strategic objective to be a world leader in the research and development of T-cell therapies for solid tumours and our ambition to be a fully integrated cell therapy company.

The 2020 objectives are linked to our business goals, which include the continuation of some 2019 goals:

- progressing our T-cell therapies through research and development, including advancement of ADP-A2M4CD8, ADP-A2M4 and ADP-A2AFP through clinical trials and development of new cell therapies;
- advancing our ADP-A2M4 product towards commercialisation and, depending on data from Phase 1 trials, progressing other cell therapy candidates into later stage clinical trials;
- continuing to develop 'off-the-shelf' cell immunotherapies including TCR T-cells, CAR-T cells and other cell therapies;
- continuing to develop next-generation and combination approaches to further enhance our cell therapies both internally and through our collaborations with third parties; and
- continuing to improve our manufacturing and patient supply processes to optimize how we deliver our cell therapies to patients.

Generally, the remuneration arrangements adopted in 2020 recognise the greater demands placed on our CEO and senior executive team to deliver on our strategy and create value for our shareholders.

Finally, under the last approved Directors' Remuneration Policy, the Board has discretion to pay Non-Executive Directors in the form of a mixture of cash and equity. The remuneration arrangements for Non-Executive Directors during 2019 comprised an award of a fixed number of share options, plus an additional number of share options or cash payment at the Director's election. The option awards and cash payments were made at competitive levels aligned with peer group data from comparable companies provided in a benchmarking analysis undertaken by Willis Towers Watson in 2018. In the absence of exceptional circumstances, Non-Executive Director remuneration is benchmarked every two years.

David M Mott
Director and Chairman of the Remuneration Committee

2 March 2020

PART I - REPORT ON REMUNERATION

The information provided in this part of the Directors' Remuneration Report is subject to audit.

The Remuneration Committee presents the Report on Remuneration for the year ended 31 December 2019, which will be put to shareholders for a non-binding vote at the Annual General Meeting to be held on 18 June 2020.

Single Total Figure of Remuneration for each Director

The following table shows the remuneration received by the Directors for the year ended 31 December 2019. For reference only, the table also shows the remuneration received by the Directors who served for the year ended 31 December 2018, which information was included in the Company's annual report and financial statements for the year ended 31 December 2018 and approved by shareholders at the Annual General Meeting held on 2 May 2019.

During 2019, Adrian Rawcliffe served as CEO effective from 1 September 2019. James Noble served as CEO for the period from 1 January to 31 August 2019 and as a Non-Executive Director effective from 1 September 2019. The following table shows pro-rated amounts for salary and fees, benefits and pension allowance for the year ended 31 December 2019 for Mr Rawcliffe, on the basis of four months service as CEO during the year, and for Mr Noble on the basis of eight months service as CEO during the year. The annual bonus amounts for the year ended 31 December 2019 are the full payments made to Mr Rawcliffe and Mr Noble.

During the year ended 31 December 2019, the Committee did not exercise any discretion over remuneration that was due to changes in the Company's share price.

	For the year ended 31 December 2019:						For the year ended 31 December 2018:					
	Fixed Pay [1]		Variable Pay [1]				Fixed Pay [1]		Variable Pay [1]			
Name of Director	Salary and fees £	Benefits £	Annual bonus £	Pension allowance £	Equity-Based Awards (6) £	Total £	Salary and fees £	Taxable benefits £	Annual bonus £	Pension allowance £	Equity-Based Awards (6) £	Total £
Executive												
Adrian Rawcliffe (CEO)	140,695 (2)	4,446 (3)	133,598 (4)	3,329 (5)	—	282,068	—	—	—	—	—	—
James Noble (former CEO)	304,751 (2)	4,237 (3)	191,993 (4)	17,523 (5)	—	518,504	420,065 (2)	906 (3)	196,380 (4)	21,003 (5)	—	638,354
Non-executives												
David Mott (Chairman)	—	—	—	—	—	—	—	—	—	—	—	—
Lawrence Alleva	22,612	—	—	—	—	22,612	23,511	—	—	—	—	23,511
Ali Behbahani	—	—	—	—	—	—	—	—	—	—	—	—
Barbara Duncan	18,843	—	—	—	—	18,843	—	—	—	—	—	—
John Furey	—	—	—	—	—	—	—	—	—	—	—	—
Giles Kerr	41,453	—	—	—	—	41,453	39,594	—	—	—	—	39,594
James Noble (7)	—	—	—	—	—	—	—	—	—	—	—	—
Elliott Sigal	—	—	—	—	—	—	—	—	—	—	—	—
Peter Thompson (8)	—	—	—	—	—	—	—	—	—	—	—	—
Tal Zaks	35,802	—	—	—	—	35,802	34,286	—	—	—	—	34,286

Notes to table of Single Total Figure of Remuneration for each Director

(1) The majority of the remuneration was set and paid in pounds sterling (£). For the purpose of this table, the salary and bonus paid in U.S. dollars to Mr Adrian Rawcliffe for the year ended 31 December 2019 and the fees paid in U.S. dollars to Mr Lawrence Alleva, Ms Barbara Duncan and Dr Tal Zaks for the year ended 31 December 2019 have been translated into pounds sterling based on the U.S. dollar/pound sterling exchange rate at 31 December 2019 ($1.32675 to £1). The fees paid in U.S. dollars to Mr Lawrence Alleva and Dr Tal Zaks for the year ended 31 December 2018, have been translated into pounds sterling based on the U.S. dollar/pound sterling exchange rate at 31 December 2018 ($1.27602 to £1).

(2) The base salary levels of our CEO and all other employees of the Group are reviewed and, to the extent deemed necessary, adjusted to be effective from 1 January in each year. For the year ended 31 December 2019, the base salary for Mr Rawcliffe is a pro-rata amount based on four months of his salary of £422,084 that became effective on 1 September 2019 when he assumed the CEO role. For the year ended 31 December 2019, the base salary for Mr Noble is a pro-rata amount based on eight months of his salary of £457,126, that was effective from 1 January 2019.

(3) Benefits comprise medical insurance, life assurance and income protection. Generally, Mr Rawcliffe participates in the same benefits as we offer to all our employees in the USA where Mr Rawcliffe resides and Mr Noble participates in the same benefits as we offer to all our employees in the United Kingdom where Mr Noble resides. For the year ended 31 December 2019, the benefits for Mr Rawcliffe is a pro-rata amount based on four months of his benefits of £13,338 and for Mr Noble is a pro-rata amount based on eight months of his benefits of £6,355.

(4) The annual bonus amount for each of the year ended 31 December 2019 and the year ended 31 December 2018 represents the total bonus payment that related to performance in each of 2019 and 2018. For the year ended 31 December 2019, the bonus payment target for Mr Rawcliffe was increased from 45% of his base salary to 60% of his base salary effective from 1 September 2019 on his appointment as CEO. The amount shown represents the aggregate of 45% of his pro-rated base salary of £236,528 (for the period from 1 January 2019 to 31 August 2019) and 60% of his pro-rated base salary of £140,695 (for the period from 1 September 2019 to 31 December 2019). A company performance multiplier of 70% was applied to the amount. For the year ended 31 December 2019, the Board exercised its discretion to award a full bonus payment to Mr Noble. The Board recognised Mr Noble's service as CEO and co-founder of the Company and his contribution to the Company's achievements in 2019, as well as his support to Mr Rawcliffe during his transition into the CEO role. Mr Noble's bonus amount represents 60% of his salary of £457,126. A company performance multiplier of 70% was applied to the amount. Mr Noble is not eligible to receive a bonus for the year ended 31 December 2020.

(5) The pension allowance for each of the year ended 31 December 2019 and the year ended 31 December 2018 represents an amount equating to 5% of the base salary for each of 2019 and 2018 for Mr Noble. For the year ended 31 December 2019, the pension allowance for Mr Rawcliffe is a pro-rata amount based on four months of his 401(k) plan payment of £9,987 and for Mr Noble is a pro-rata amount based on eight months of his pension allowance of £26,285.

(6) There were no performance obligations linked to the equity-based awards and there is no impact of share price appreciation on value that is required to be reported in the above table. In each of the year ended 31 December 2019 and the year ended 31 December 2018, the value of equity-based awards included in the table is based on the market value of underlying shares at the date of grant, less the applicable exercise price, which is nil because the exercise price was based on the market value of the underlying shares at the date of grant.

(7) Mr Noble has waived all fees and equity awards for his service as a Non-Executive Director for the period from 1 September 2019 to 31 March 2020. Mr Noble is serving his nine month notice period as CEO and continues to be eligible to receive his salary and benefits, which will cease on 31 March 2020. Mr Noble will be eligible for our Non-Executive Director compensation package effective from 1 April 2020.

(8) As reported in the Directors' Remuneration Report included in the Company's annual report and financial statements for the year ended 31 December 2018, Dr Peter Thompson stood down from the Board on 5 July 2018 and did not receive any fees or an annual award of options in 2018. In recognition of Dr Thompson's service as a Board member and as a member of the Remuneration Committee up to 5 July 2018, he was permitted a 12 month period in which to exercise those options which had vested as at 5 July 2018. Dr Thompson did not elect to exercise those options and they lapsed and ceased to be exercisable on 5 July 2019.

Annual Bonus

The annual bonus for the year ended 31 December 2019 shown in the table above for Mr Rawcliffe, our CEO, was based on the achievement of objectives primarily linked to our business strategies and which included: the advancement of our clinical trials for ADP-A2M4 and ADP-A2AFP; the completion of enrolment of our clinical trial for ADP-A2M10; continuing to use our SPEAR T-cell platform to generate SPEAR T-cells for cancers where existing therapeutic approaches are limited; continuing to understand, further enhance and improve the effectiveness and persistence of our SPEAR T-cell therapies; and the optimisation and expansion of our process development and manufacturing capabilities to maintain our leadership position in the TCR space and the continued expansion of our intellectual property portfolio.

The Board has considered whether it would be in the best interests of the Company and its shareholders to disclose the precise targets agreed for the performance measures in 2019. An additional consideration is that most of our competitors are based in the U.S. where market practice is not to disclose precise annual bonus targets for biotechnology companies at the pre-commercialization stage. As the specific objectives for a single year are based on the Group's long-term strategies, the Board has concluded that disclosing such targets would necessarily involve divulging competitively sensitive information that we believe would be detrimental to our commercial performance going forward and, therefore, we are providing the categories of objectives, rather than the precise targets.

Statement of Directors' Shareholdings and Share Interests

The table below shows, for each Director, the total number of shares owned, the total number of share options held, the number of share options vested as at 31 December 2019 and the share options exercised during the year ended 31 December 2019. The table only reflects shares held individually by each Director, or a family investment vehicle or trust, and does not include shares held by any investment fund with which the Director is affiliated.

Name of Director	Shares owned	Total share options	Vested share options (1)	Options exercised during year ended 31 December 2019
Executive Director				
Adrian Rawcliffe (CEO)	19,908 (2)	9,893,424	5,761,561	38,412
Non-Executive Directors				
David Mott (Chairman)	—	1,195,477	844,530	—
Lawrence Alleva	117,864 (3)	1,385,837	1,114,628	—
Ali Behbahani	—	950,248	715,841	—
Barbara Duncan	—	843,774	719,774	—
John Furey	—	524,774	115,468	—
Giles Kerr	—	680,000	556,000	—
James Noble	12,945,700 (4)	12,722,376	7,858,715	1,773,100
Elliott Sigal	367,038 (5)	1,338,643	1,104,236	—
Tal Zaks	—	680,000	556,000	—

(1) All share options that were outstanding as at 31 December 2019 use time-based vesting and are not subject to performance targets other than continued service until the date of vesting.

(2) Consists of 19,908 Ordinary shares represented by 3,318 ADSs, which were obtained from the exercise of approximately 25% of an RSU-style option covering 38,412 Ordinary shares granted on 12 January 2018 and which vested on 12 January 2019. Once vested, the RSU-style options must be exercised within a restricted period or they are forfeited. The exercise of 38,412 Ordinary shares was effected on a Sell to Cover basis implemented automatically in accordance the relevant share option plan, under which sufficient ADSs were sold by the Company to satisfy Mr Rawcliffe's tax withholding obligations and associated sale costs. The residual 3,318 ADSs are held by Mr Rawcliffe.

(3) Consists of 70,584 Ordinary shares represented by 11,764 ADSs that Mr Alleva purchased during the IPO and 47,280 Ordinary shares represented by 7,880 ADSs purchased by the Lawrence M. Alleva Revocable Trust in December 2018.

(4) Includes 1,200,000 Ordinary shares represented by 200,000 ADSs that Mr Noble purchased in October 2015 and 1,773,110 Ordinary shares which derive from the exercise of 1,773,110 options in May 2019.

(5) Includes 254,100 Ordinary shares held by Sigal Family Investments LLC, as well as 52,938 Ordinary shares represented by 8,823 ADSs that Dr Sigal purchased during the IPO and 60,000 Ordinary shares represented by 10,000 ADSs purchased by Sigal Family Investments LLC in May 2016.

Policy on Shareholding Requirements

We do not currently have a policy requiring our Directors to hold a certain number or value of our shares. However, we encourage our Executive Director and senior executive officers to have a shareholding in the Company.

Directors' Equity-based Awards Held at 31 December 2019

The table below presents the interests of the Directors in options to acquire our Ordinary shares with a nominal value of £0.001 per share as at 31 December 2019. 7,858,119 options were granted to Directors during the year ended 31 December 2019. Two of our Directors exercised options during the year ended 31 December 2019 (further details are set out in the "*Statement of Directors' Shareholdings and Share Interests*" earlier in this report).

Name of Director	Options Held	Grant date	Start date for vesting	Exercise price	First date of exercise of some or all options (1)	Date of expiry
Executive Director						
Adrian Rawcliffe (CEO) (2)	3,000,000	16/03/15	16/03/15	£ 0.50	16/03/16	16/03/25
	939,948	18/01/16	18/01/16	£ 0.89	18/01/17	18/01/26
	2,072,976	13/01/17	13/01/17	£ 0.59	13/01/18	13/01/27
	687,984	12/01/18	12/01/18	£ 0.96	12/01/19	12/01/28
	115,236	12/01/18	12/01/18	£ 0.001	12/01/19	12/01/28
	1,257,744	04/01/19	04/01/19	£ 0.70	04/01/20	04/01/29
	280,896	04/01/19	04/01/19	£ 0.001	04/01/20	04/01/29
	628,872	27/06/19	27/06/19	£ 0.53	27/06/20	27/06/29
	140,448	27/06/19	27/06/19	£ 0.001	27/06/20	27/06/29
	628,872	01/09/19	01/09/19	£ 0.22	01/09/20	01/09/29
	140,448	01/09/19	01/09/19	£ 0.001	01/09/20	01/09/29
Total	*9,893,424*					
Non-Executive Directors						
David Mott (Chairman)	163,229	11/05/15	11/05/15	£ 1.82	11/05/15	11/05/25
	191,410	11/08/16	11/08/16	£ 0.97	11/08/17	11/08/26
	302,561	03/07/17	03/07/17	£ 0.58	03/07/18	03/07/27
	187,330	22/06/18	22/06/18	£ 1.65	22/06/19	22/06/28
	350,947	02/07/19	02/07/19	£ 0.48	02/07/20	02/07/29
Total	*1,195,477*					
Lawrence Alleva (3)	519,481	16/03/15	16/03/16	£ 0.50	16/03/16	16/03/25
	30,745	11/05/15	11/05/15	£ 1.82	11/05/15	11/05/25
	196,678	11/08/16	11/08/16	£ 0.97	11/08/17	11/08/26
	243,724	03/07/17	03/07/17	£ 0.58	03/07/18	03/07/27
	124,000	22/06/18	22/06/18	£ 1.65	22/06/19	22/06/28
	271,209	02/07/19	02/07/19	£ 0.48	02/07/20	02/07/29
Total	*1,385,837*					
Ali Behbahani	155,682	11/05/15	11/05/15	£ 1.82	11/05/15	11/05/25
	184,562	11/08/16	11/08/16	£ 0.97	11/08/17	11/08/26
	220,788	03/07/17	03/07/17	£ 0.58	03/07/18	03/07/27
	154,809	22/06/18	22/06/18	£ 1.65	22/06/19	22/06/28
	234,407	02/07/19	02/07/19	£ 0.48	02/07/20	02/07/29
Total	*950,248*					
Barbara Duncan (4)	332,776	23/06/16	23/06/16	£ 1.01	23/06/17	23/06/26
	228,765	03/07/17	03/07/17	£ 0.58	03/07/18	03/07/27
	158,233	22/06/18	22/06/18	£ 1.65	22/06/19	22/06/28
	124,000	02/07/19	02/07/19	£ 0.48	02/07/20	02/07/29
Total	*843,774*					
John Furey (4)	284,233	05/07/18	05/07/18	£ 1.49	05/07/19	05/07/28
	240,541	02/07/19	02/07/19	£ 0.48	02/07/20	02/07/29
Total	*524,774*					
Giles Kerr (4)	288,000	29/11/16	29/11/16	£ 0.65	29/11/17	29/11/26
	144,000	03/07/17	03/07/17	£ 0.58	03/07/18	03/07/27
	124,000	22/06/18	22/06/18	£ 1.65	22/06/19	22/06/28
	124,000	02/07/19	02/07/19	£ 0.48	02/07/20	02/07/29
Total	*680,000*					

James Noble (5)	3,500,000	20/03/15	19/12/14	£	0.3557	19/12/15	19/12/24
	1,968,016	18/01/16	18/01/16	£	0.89	18/01/17	18/01/26
	2,072,976	13/01/17	13/01/17	£	0.59	13/01/18	13/01/27
	1,719,936	12/01/18	12/01/18	£	0.96	12/01/19	12/01/28
	384,120	12/01/18	12/01/18	£	0.001	12/01/19	12/01/28
	2,515,536	04/01/19	04/01/19	£	0.70	04/01/20	04/01/29
	561,792	04/01/19	04/01/19	£	0.001	04/01/20	04/01/29
Total	*12,722,376*						
Elliott Sigal (3)	519,481	16/03/15	16/03/16	£	0.50	16/03/16	16/03/25
	24,596	11/05/15	11/05/15	£	1.82	11/05/15	11/05/25
	184,562	11/08/16	11/08/16	£	0.97	11/08/17	11/08/26
	220,788	03/07/17	03/07/17	£	0.58	03/07/18	03/07/27
	154,809	22/06/18	22/06/18	£	1.65	22/06/19	22/06/28
	234,407	02/07/19	02/07/19	£	0.48	02/07/20	02/07/29
Total	*1,338,643*						
Tal Zaks (4)	288,000	29/11/16	29/11/16	£	0.65	29/11/17	29/11/26
	144,000	03/07/17	03/07/17	£	0.58	03/07/18	03/07/27
	124,000	22/06/18	22/06/18	£	1.65	22/06/19	22/06/28
	124,000	02/07/19	02/07/19	£	0.48	02/07/20	02/07/29
Total	*680,000*						

Notes to table of Directors' Equity-based Awards Held at 31 December 2019

(1) All share options awarded to Directors that were outstanding as at 31 December 2019 use time-based vesting and are not subject to performance targets other than continued service until the date of vesting.

(2) 1,538,640 options granted to Adrian Rawcliffe were granted in connection with his appointment as CEO effective from 1 September 2019.

(3) 519,481 options granted to Lawrence Alleva and 519,481 options granted to Dr Elliott Sigal vest and become exercisable as follows: 25% on the first anniversary of the grant date and 75% in monthly instalments over the following three years. All options granted to Non-Executive Directors on 11 May 2015 vested and became exercisable on 11 May 2015. All options granted to Non-Executive Directors on 11 August 2016 vested and became exercisable on 11 August 2017. All options granted to Non-Executive Directors on 3 July 2017 vested and became exercisable on 3 July 2018. All options granted to Non-Executive Directors on 22 June 2018 vested and became exercisable on 22 June 2019. All options granted to Non-Executive Directors on 2 July 2019 vest and become exercisable on 2 July 2020.

(4) 332,776 options granted to Barbara Duncan, 288,000 options granted to Giles Kerr 288,000 options granted to Tal Zaks and 284,233 options granted to John Furey were awarded on appointment as new Directors, and vest and become exercisable as follows: 25% on the first anniversary of the grant date and 75% in monthly instalments over the following two years.

(5) All options granted to James Noble on 20 March 2015 were granted as replacement options in exchange for options formerly held over Ordinary shares of Adaptimmune Limited. Generally, these replacement options vest and become exercisable as follows: 25% on the first anniversary of the grant date of the original options and 75% in monthly instalments over the following three years.

The closing market price of our ADSs on 31 December 2019 was $1.20. One ADS represents six Ordinary shares.

Payments Made to Past Directors

During the year ended 31 December 2019, we made no payments to former Directors of the Company.

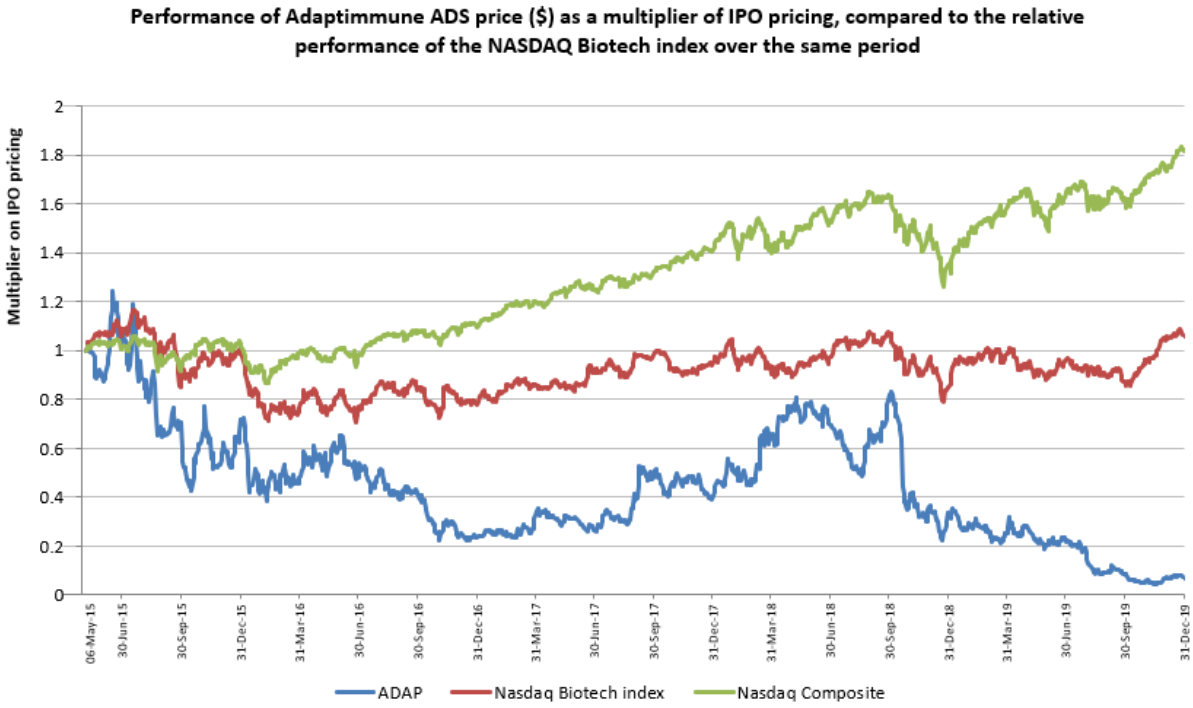
Payments for Loss of Office

During the year ended 31 December 2019, we made no payments with respect to a Director's loss of office.

Illustration of Total Shareholder Return

The information provided in this part of the Directors' Remuneration Report is not subject to audit.

The following graph compares the cumulative total shareholder return on our ADSs, each representing six Ordinary shares, with that of the Nasdaq Biotech Index and the Nasdaq Composite Index for the period that our shares were publicly traded, which commenced on 6 May 2015. We selected the Nasdaq Biotech Index because our ADSs trade on The Nasdaq Global Select Market and we believe this indicates our relative performance against a group consisting of more similarly situated companies.



Chief Executive Officer Total Remuneration History

The table below sets out total remuneration details for the Chief Executive Officer. For the year ended 31 December 2019, the table sets out total remuneration details for Adrian Rawcliffe, for whom the Single total figure of remuneration includes pro-rated amounts for salary, benefits and pension on the basis of four months service as CEO during the year (from 1 September 2019 to 31 December 2019). For the year ended 31 December 2018, the table sets out total remuneration details for James Noble, for whom the Single total figure of remuneration includes full amounts for salary, taxable benefits and pension allowance on the basis of 12 months service.

Period	Single total figure of remuneration £ (1)	Annual bonus payout against maximum opportunity (2)	Long term incentive vesting rates against maximum opportunity (3)
Year ended 31 December 2019:	282,068	35 %	100 %
Year ended 31 December 2018:	638,354	47 %	100 %

(1) The Single total figure of remuneration for the year ended 31 December 2019 includes the annual bonus payment for performance in the year ended 31 December 2019. The Single total figure of remuneration for the year ended 31 December 2018 includes the annual bonus payment for performance in the year ended 31 December 2018.

(2) The bonus payout percentage amount for the year ended 31 December 2019 relates to the total annual bonus payment for performance in the year ended 31 December 2019. The bonus payout percentage amount for the year ended 31 December 2018 relates to the total annual bonus payment for performance in the year ended 31 December 2018. In both years, the maximum opportunity was an annual bonus payment of up to 100% of salary, which was in line with the last approved Directors' Remuneration Policy.

(3) The amount shown represents the percentage of the options that actually vested during the period expressed as a percentage of the maximum number of options that could have vested during the period. There were no performance obligations linked to these equity-based awards, other than service obligations, and therefore, all options that could have vested during the period have actually vested.

Chief Executive Officer's Remuneration Compared to Other Employees

The Chief Executive Officer's average fixed salary of £422,085 for the year ended 31 December 2019 was 4.5 times the value of the average fixed salary of the Group's employees for such period. His average fixed salary of £420,065 for the year ended 31 December 2018 was 4.6 times the value of the average fixed salary of the Group's employees for that period.

During 2019, Adrian Rawcliffe served as CEO effective from 1 September 2019. James Noble served as CEO for the period from 1 January to 31 August 2019.

The Company had fewer than 250 UK employees as at 31 December 2019 and, as a result, it is exempt from the CEO pay ratio requirement in the UK.

The following table shows the percentage change in remuneration of the Chief Executive Officer in comparison to the percentage change in remuneration of an employee between the year ended 31 December 2019 and the year ended 31 December 2018.

Percentage change in remuneration in the year ended 31 December 2019 compared with remuneration in the year ended 31 December 2018

	CEO (1)	Average change per employee (1)
Base salary	0.5 %	2.7 %
Annual bonus	(32.0)%	(14.6)%
Taxable benefits	1,372.0 %	(6.5)% (2)

(1) The base salary change for the CEO is calculated in relation to the base salary for Adrian Rawcliffe for 2019 annualized (£422,084) and compared to the base salary for James Noble for the year ended 2018 (£420,065). The annual bonus amount for each of the year ended 31 December 2019 and the year ended 31 December 2018 represents the total bonus payment.

(2) The average change per employee is calculated in relation to an average number of 410 FTE employees for the year ended 31 December 2019 compared to an average of 409 FTE employees for the year ended 31 December 2018.

(3) Taxable benefits for the CEO and for employees comprise small amounts and, therefore, any change generates a significant percentage decrease or increase. For the year ended 31 December 2019, the CEO's benefits were based on the benefits for Adrian Rawcliffe annualized (£13,338) and compared to the taxable benefits for James Noble for the year ended 31 December 2018 (£906). The percentage change is largely driven by the higher cost of health insurance in the USA where Mr Rawcliffe is resident.

Relative Importance of Spend on Pay

The following table sets forth the total amounts spent by the Company and its direct and indirect subsidiaries on remuneration for the year ended 31 December 2019 and the year ended 31 December 2018. Given that the Group remains in the early phases of its business life cycle, the comparator chosen to reflect the relative importance of the Group's spend on pay is the Group's research and development expenses as shown in its consolidated income statement on page 71 of its Annual Report and Financial Statements for the year ended 31 December 2019.

Period:	**Year ended 31 December 2019**	**Year ended 31 December 2018**
Total spend on remuneration (1):	$ 56,842,000	$ 64,276,000
Research and development expenses:	$ 108,524,000	$ 115,242,000

(1) The total spend on remuneration includes the value of equity-based awards as recognised in the financial statements in accordance with International Financial Reporting Standard 2 "Share-Based Payments".

Executive Director Remuneration for the year ending 31 December 2020

Salary

In 2019, the Committee engaged Willis Towers Watson as independent advisors to benchmark executive compensation, to ensure that it remains competitive for the purposes of retention and engagement. Willis Towers Watson benchmarked executive compensation against a selected peer group consisting largely of comparable U.S.-listed biopharmaceutical companies, with some U.K.-listed biopharmaceutical companies, and to provide recommendations for base salaries, equity based awards and the structure of bonus incentive awards for 2020.

As a result of this benchmarking exercise, our CEO and senior executive officers received increased base salaries at levels that remain compliant with the last approved Directors' Remuneration Policy. For our CEO, this resulted in a base salary of £432,636 effective from 1 January 2020.

Annual bonus

For the year ending 31 December 2020, the CEO is eligible for a target bonus award of 60% of his base salary of £432,636 (that is, £259,582), subject to the achievement of objectives. These are linked to our business strategies, which include: progressing our T-cell therapies through research and development, including advancement of ADP-A2M4CD8, ADP-A2M4 and ADP-A2AFP through clinical trials and development of new cell therapies; advancing our ADP-A2M4 product towards commercialisation and, depending on data from Phase 1 trials, progressing other cell therapy candidates into later stage clinical trials; continuing to develop 'off-the-shelf' cell immunotherapies including TCR T-cells, CAR-T cells and other cell therapies; continuing to develop next-generation and combination approaches to further enhance our cell therapies both internally and through our collaborations with third parties; and continuing to improve our manufacturing and patient supply processes to optimize how we deliver our cell therapies to patients.

It is anticipated that the Board will meet in December 2020 to assess the performance of the CEO for the year ending 31 December 2020 against the objectives.

The Board has considered whether it would be in the best interests of the Company and its shareholders to disclose the precise targets agreed for the performance measures in 2020. An additional consideration is that most of our competitors are based in the U.S. where market practice is not to disclose precise annual bonus targets for biotechnology companies at the pre-commercialization stage. As the specific objectives for a single year are based on the Group's long-term strategies, the Board has concluded that disclosing such targets would necessarily involve divulging competitively sensitive information that we believe would be detrimental to our commercial performance going forward and, therefore, we are providing the categories of objectives, rather than the precise targets.

Long-term incentives

During January 2020, awards of share options were made to our CEO and other Senior Executive Officers. These awards were within market competitive levels provided by Willis Towers Watson, following their benchmarking assessment of equity awards made to executive teams in a peer group of comparable U.S. and U.K. listed biopharmaceutical companies, with a priority focus on U.S. companies, and were also within the principles of the last approved Directors' Remuneration Policy. These awards were disclosed on Form 4s submitted to the Securities and Exchange Commission on 17 January 2020.

The Remuneration Committee

The Remuneration Committee is comprised of Mr Mott (Chairman), Mr Furey and Dr Zaks. All members have continued to serve until the date of this Report on Remuneration. The charter of the Committee is set forth on our website at http://www.adaptimmune.com

Advice Provided to the Remuneration Committee

The Committee retained Willis Towers Watson to provide independent advice and consultation with respect to remuneration arrangements for the CEO (being our sole Executive Director) and senior management. Willis Towers Watson is a global remuneration consultant with a well-established reputation for the design and implementation of remuneration programmes, including the design and implementation of equity-based incentive programmes. The Committee also sourced certain market research data reports from Radford remuneration consultants. In the year ended 31 December 2019, the amounts paid to Willis Towers Watson totalled $130,461 and the amounts paid to Radford totalled $6,000.

In addition to Willis Towers Watson and Radford, the Committee solicited and received input from the CEO concerning the remuneration of senior executives other than himself. The CEO provided recommendations with respect to annual cash bonuses to be paid to these persons for service in the year ended 31 December 2019 and base salaries effective from 1 January 2020 and with respect to equity-based awards made to these persons in January 2020. Finally, the CEO also provided input to the Committee regarding the implementation of equity-based remuneration as an element of all other employees' remuneration.

Statement of Voting Results

Voting at our shareholder meetings has generally been conducted by show of hands by shareholders who are in attendance at the meeting. At the Annual General Meeting held on 2 May 2019, all of the resolutions set out in the Notice of the Annual General Meeting sent to shareholders were duly proposed and passed by unanimous approval, including the resolution proposing the approval of the Directors' Remuneration Report for the year ended 31 December 2018. No votes were withheld.

Details of the proxy votes received in relation to the resolution proposing the approval of the Directors' Remuneration Report for the year ended 31 December 2018 were as follows:

Resolution	Votes For	% of Total	Votes Against	% of Total	Votes Withheld	% of Total
To approve the Directors′ Remuneration Report	469,831,302	99.85	767,712	0.15	3,166,560	0.64

Statement of Implementation of Remuneration Policy in the Year ended 31 December 2019

There have been no changes to the Directors' Remuneration Policy, as approved at the Annual General Meeting of shareholders held on 20 June 2018. In 2020, the Company intends to adhere to the policy as approved.

PART II - DIRECTORS' REMUNERATION POLICY

The information provided in this part of the Directors' Remuneration Report is not subject to audit.

We have set forth below a summary of the remuneration policy for the Executive Directors and for our Non-Executive Directors.

The Directors' Remuneration Policy was approved at the Annual General Meeting held on 20 June 2018 and remains effective for a maximum of three years, until 19 June 2021, or until a revised policy is approved by shareholders. The last approved remuneration policy can also be found in the Annual Report and Financial Statements of the Company for the year ended 31 December 2017, which is available in the Investors section of our website: http://www.adaptimmune.com

Summary of remuneration policy – Executive Directors

As Adaptimmune Therapeutics plc is a U.K. incorporated company listed on NASDAQ, the Group has operations in the U.K. and the U.S., our senior executives and our Non-Executive Directors live and work in the U.K. and the U.S., the Committee considers it appropriate to examine and be informed by compensation practices in both the U.K. and U.S., particularly in the matter of equity-based incentives, with an increasing focus on U.S. benchmarks and practices. The Committee considers that the last approved Directors' Remuneration Policy continues to be appropriate and fit for purpose, but the Committee is committed to reviewing the remuneration policy on an ongoing basis in order to ensure that it remains effective and competitive.

The Directors' Remuneration Policy is used to determine the remuneration for our CEO, our sole Executive Director, as well as for our other senior executives, and would also apply to other Executive Directors and senior executives that we appointed.

As described in the last approved Directors' Remuneration Policy, the elements of remuneration for the Executive Director(s) and Senior Executives comprise: base salary, pension or pension allowance payment, benefits (currently, access to death-in-service life insurance, family private medical cover and ill-health income protection), annual bonus and long term equity incentives (currently, share option awards).

The remuneration of our CEO is determined by the Board after having considered recommendations from the Committee. The remuneration of other senior executives in the Company, excluding our CEO, (the "Senior Executives") is determined by the Committee.

In 2019, the Committee retained an independent remuneration consultant, Willis Towers Watson, to assist the Committee in ensuring that our remuneration arrangements for the Executive Director and senior executives are competitive for the calendar year commencing 1 January 2020. Willis Towers Watson provided data from comparable publicly traded biopharmaceutical companies and otherwise assisted the Committee in its design of competitive remuneration for the Executive Director and senior executives. We expect to continue to use remuneration consultants to assist the Committee in determining competitive levels of executive remuneration and specific design elements of our remuneration programme.

The following tables present the elements of remuneration for our CEO (our sole Executive Director) and our other senior executives.

Element of Remuneration	Purpose and link to strategy	Operation	Maximum	Performance targets
Base salary	Rewards skills and experience and provides the basis for a competitive remuneration package.	Salaries will be reviewed annually by reference to: (i) market practice and market data on which the Committee receives independent advice; (ii) the individuals' experience and scope of the role; (iii) broader employee increases and (iv) rates of inflation. Salaries will be benchmarked against comparable roles in a selected peer group of US- and European-listed biopharmaceutical companies with similar market capitalisations and/or scale of operational complexity. We typically expect to align salaries with the 50th percentile of peer group comparator data but may vary from this general rule where we consider that special circumstances apply or where recruitment or retention of a particular role is required. The Committee may also decide to approve future increases following changes to job responsibilities or to reflect experience within the role.	Salaries will not generally exceed the 75th percentile of peer group comparator data for the relevant role unless there is a clear business rationale to do so. The Committee will reference alternative data for roles not widely represented in the core peer group. The Committee retains discretion to adjust the Executive Directors' base salaries to ensure that we can attract and retain the necessary talent to effectively compete in the global marketplace.	Not applicable.
Pension	Enables Executive Directors to build long-term retirement savings.	Company contribution to a personal pension scheme or a pension allowance payment, at the election of the Executive Director. Levels will be reviewed annually and the Committee may decide to increase future contribution levels should the review indicate such a change is appropriate.	5% of basic salary.	Not applicable.

Element of Remuneration	Purpose and link to strategy	Operation	Maximum	Performance targets
Benefits	Protects against risks and provides other benefits in line with market practice.	Benefits currently include death-in-service life insurance, family private medical cover and ill-health income protection. The Committee will review benefits offered from time to time and retains the discretion to add or substitute benefits to ensure they remain market competitive. In the event that the Group requires an Executive Director to relocate, we would offer appropriate relocation assistance.	Not applicable.	Not applicable.
Annual Bonus	Rewards achievement of the near-term business objectives set at the start of each calendar year and reflects individual and team performance of the Executive Director and other Senior Executives in achieving those objectives, and progress towards achieving our strategic goals.	Objectives are set at the start of each calendar year. The choice of annual performance objectives will reflect the Committee's assessment of the key milestones/metrics required to be achieved within the calendar year in order to make progress towards achieving our strategic goals. The target annual cash bonus for our Executive Directors will be established as a percentage of base salary. The annual bonus is payable in cash after award. When business opportunities or challenges change substantially during the course of the year, the Committee may adjust objectives to meet the changed circumstances and correspondingly realign potential rewards.	Awards will normally be limited to a maximum of 100% of basic salary. In exceptional periods, considered to be those years in which achievements lead to a transformational effect on the future prospects or the valuation of the business, the annual maximum may increase to up to 150% of basic salary. Judgement as to whether achievements in a calendar year are considered to be exceptional is at the discretion of the Committee.	The Committee retains the ability to set performance objectives annually. These objectives can be group-based and /or individual, financial and/ or non-financial, and are likely to include milestones linked to: • successful execution of key elements of pipeline development programmes; • progress with clinical trials programmes;

Element of Remuneration	Purpose and link to strategy	Operation	Maximum	Performance targets
				• key regulatory steps (IND grants, regulatory approvals); • progress with business development activities; • the Group's financial position and equity liquidity and valuation.
				A number of these objectives are considered to be commercially sensitive and are therefore not disclosed here in detail.

Element of Remuneration	Purpose and link to strategy	Operation	Maximum	Performance targets
Long term equity incentives	Motivates and rewards multi-year performance, encouraging achievement of strategy over the medium to long term. Aligns the interests of our Executive Directors and Senior Executives with those of our shareholders. Encourages retention as entitlement to full benefits arising from equity-based awards only accrues over a period of years. Enables us to compete with equity-based remuneration offered by a set of comparable companies with whom we may compete for executive talent.	Under our share option schemes, the Committee is able to grant awards of CSOP options in the UK, and unapproved share options (non-qualifying options) in the UK and US, which includes the ability to grant RSU-style awards. All awards may be subject to performance targets. The Committee generally grants equity-based remuneration to Executive Directors and Senior Executives at the time they commence employment and from time to time thereafter based on performance. The Committee is able to grant share options which permit phased vesting over the period. Currently, awards vest over a period of four years, with the first 25% vesting after 12 months.	There is no fixed annual maximum limit to the size or value of equity-based compensation awards made in a year to Executive Directors and Senior Executives, or in the aggregate over a period of years. However, the Committee will always work within benchmarking guidelines provided by our compensation consultants. Additionally, our option scheme rules set a maximum limit on the grant of options to all participants of 8% of our initial issued share capital on the date of our IPO increased by 4% on each 30 June to be effective from 1 July 2016. Expected values are calculated in accordance with generally accepted methodologies based on Black-Scholes models.	Generally, we grant equity-based remuneration awards that vest over time without specific performance targets other than continued service. When making awards, the Committee considers: the size and value of past awards; the performance of the Executive Director or Senior Executive; and competitive data on awards made to executives at comparable companies. Our Severance Policy entitles the Executive Director and Senior Executives to accelerated vesting of options on termination without cause on a change of control.

Element of Remuneration	Purpose and link to strategy	Operation	Maximum	Performance targets
			We seek to establish equity-based remuneration to be reasonably competitive to that offered by a set of comparable companies with whom we may compete for executive talent.	Additionally, the Board has discretion to accelerate vesting of options including in connection with a change of control event or when an Executive Director's service is terminated on account of disability or death. *See Policy on Payments for Loss of Office.*

Notes to policy tables

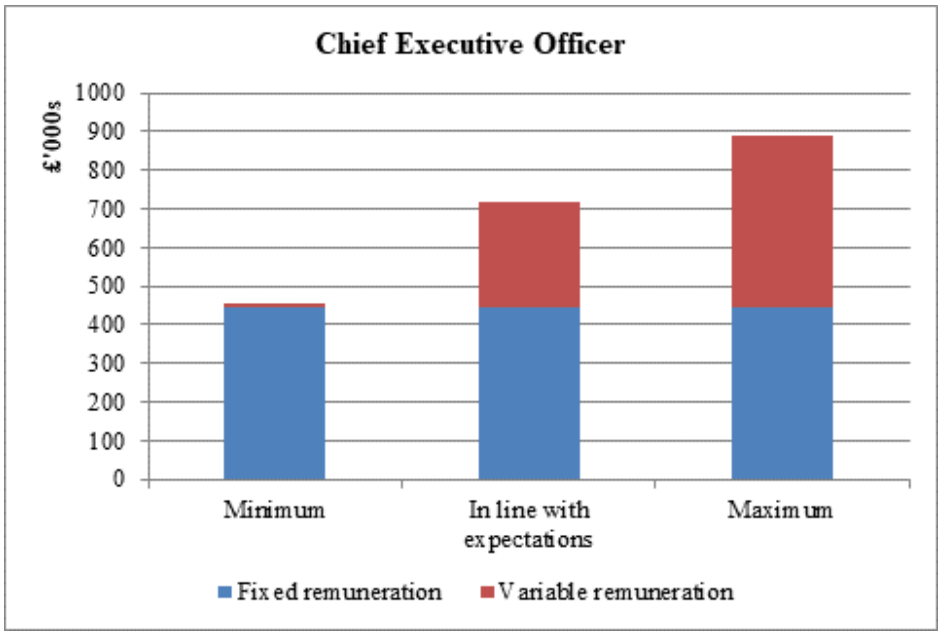
(1) The use of time-based vesting for share option awards is consistent with U.S. practice, to which we look for guidance on our policies. We examine, with assistance from Willis Towers Watson, our independent remuneration consultant, comparative data on both a (i) fair market value basis and (ii) percentage of salary basis. The Committee uses a blend of the two methods to establish appropriate levels of equity-based remuneration for the Executive Director and Senior Executives.

Application of the Remuneration Policy to Executive Director Remuneration for the year ending 31 December 2020

The following table provides an illustration of the potential remuneration for the year ending 31 December 2020 for the CEO, as the sole Executive Director, computed in accordance with the Remuneration Policy outlined above and by applying the following assumptions:

Minimum	The base salary for the Executive Director is assumed to be the base salary of £432,636 per annum effective from 1 January 2020.
	The value of benefits receivable for the year ending 31 December 2020 is assumed to be the same rates of contributions for a 401(k) plan (pension) and for benefits as for 2019.
	No bonus is assumed for the Executive Director.
In line with expectations	The same components for base salary and benefits as reflected for the minimum above.
	The expected level of bonus is taken to be 60% of base salary, being the target level of bonus payment for the year ending 31 December 2020.
Maximum	The same components for base salary and benefits as reflected for the minimum above.
	The maximum level of bonus is taken to be 100% of current base salary.

The bar chart below does not include any value for equity-based award remuneration in either the minimum illustration or the illustration of remuneration in line with expectations. We do not believe it is possible to reasonably quantify the value that might result from outstanding options and other equity-based awards.



Service Contracts

It is Group policy that Executive Directors should have contracts with an indefinite term providing for a maximum of up to 12 months' notice. We employed James Noble, formerly our CEO and our sole Executive Director, on a service agreement providing for termination, other than for cause, upon nine months' advance notice by either the Company or the CEO.

For Mr Noble, and in future for Executive Directors who are resident in the UK, on termination of the service contract without cause, we have the right to require the Executive Director to take garden leave for all or part of the notice period (the remaining term of the contract) and we have the right to pay salary and benefits in lieu of notice. During the period of any garden leave, the Executive Director must continue to be available to the Company and will continue to receive his full salary and other contractual entitlements. The Company may terminate the Executive Director's employment with immediate effect in certain circumstances including bankruptcy, criminal convictions, gross misconduct or serious or repeated breaches of obligations of his service. In the event of termination of the Executive Director for cause, we are not obligated to make any payment in lieu of notice. The Executive Director is required to resign his position as a Director if the Board required a resignation in conjunction with the end of the employment relationship. The service agreement contains non-solicitation and non-competition provisions for a 12 month period as well as confidentiality provisions. We expect that service contracts with future Executive Directors who are resident in the UK will have comparable provisions.

In connection with Mr Noble's transition from his CEO role to a Non-Executive Director role effective from 1 September 2019, the Company and Mr Noble entered into a letter agreement in June 2019 relating to the transition, and entered into a variation agreement in June 2019 that operated to vary Mr Noble's service agreement for the period from 1 September 2019 to 31 March 2020. The letter and related variation agreement covered, amongst other things, vesting of share options and other general terms of Mr Noble's employment during this transition period. In particular, the letter and related variation agreement provided that Mr Noble remained eligible for a bonus payment in respect of the year ended 31 December 2019, subject to the application of the 2019 company performance multiplier, and was eligible to continue to receive his base salary and benefits during his notice period of nine months which will end on 31 March 2020. In addition, the letter and related variation agreement provided that Mr Noble was entitled to have a 12 month period, effective from the date when he ceases to be connected with the Company, in which to exercise his vested share options as at 31 March 2020 and that the remainder of his share options would be surrendered for cancellation on 31 March 2020.

We currently employ Adrian Rawcliffe, our CEO and sole Executive Director who is resident in the USA, on an at-will employment agreement. The Company may terminate Mr Rawcliffe's employment with or without cause and without advance notice, but Mr Rawcliffe is required to provide at least 60 days' advance written notice to the Company if he is terminating his employment. In the event of a termination of employment by the Company without cause or a resignation by Mr Rawcliffe for good reason, upon a change of control, any portion of share option awards that were granted and unvested as of the date of termination will vest and immediately become exercisable on the date of termination. Mr Rawcliffe will also be entitled to payments under the Company's executive severance policy in the event of a termination by the Company without cause or a resignation by Mr Rawcliffe for good reason without a change of control and upon a change of control. The CEO is required to resign his position as a Director if the Board requires a resignation in conjunction with the end of the employment relationship. The agreement contains non-solicitation and non-competition provisions for a 12 month period as well as confidentiality provisions. We expect that service contracts with future Executive Directors who are resident in the USA will have comparable provisions.

A copy of the letter agreement and related variation agreement with Mr Noble, and of the employment agreement with Mr Rawcliffe, were filed with the Securities and Exchange Commission on 27 June 2019.

Policy on Payments for Loss of Office

Our approach to payments in the event of termination of an Executive Director is to take account of the individual circumstances including the reason for termination, individual performance, contractual obligations and the terms of the long-term incentive plans in which the Executive Director participates.

As previously reported in our approved Directors' Remuneration Report for the year ended 31 December 2016, and subsequent reports, during March 2017, the Company entered into an amended service agreement with our Executive Director (then James Noble) and adopted an executive severance policy that is applicable to our Executive Director and senior executive officers on termination other than for cause.

In June 2019, the Company, through its subsidiary, Adaptimmune LLC, entered into an employment agreement with our current Executive Director (Adrian Rawcliffe) in connection with his appointment as CEO effective from 1 September

2019. The amended service agreement with James Noble, the employment agreement with Adrian Rawcliffe and the executive severance policy are compliant with our last approved Directors' Remuneration Policy. In particular, all employment arrangements for any Executive Director(s) will continue to include a notice provision, expect that the Company will not be obligated to provide any advance notice in relation to the termination of employment of any Executive Director(s) resident in the USA, and continuing payment obligations for not more than a maximum period of one year following our termination of an Executive Director other than for cause. Payment obligations would include base salary, bonus and benefits. In the event of termination without cause following a change of control, the Executive Director is entitled to accelerated vesting of any unvested and outstanding equity awards. In addition, the Board has discretion under our option scheme rules to allow some or all of the options held by our Executive Director and senior executives to vest in the event of a change of control or otherwise.

In order to receive severance benefits under the employment agreement and executive severance policy, the Executive Director is required to execute a release of claims in favour of the Company and comply with certain other post-employment covenants set forth in his employment agreement.

We will comply with applicable disclosure and reporting requirements of the Securities and Exchange Commission with respect to remuneration arrangements with a departing Executive Director.

Policy on Recruitment Arrangements

Our policy is to pay a fair remuneration package for the role being undertaken and the experience of the individual to be appointed. We expect remuneration packages will include base salary, targeted level of annual cash incentive, initial and ongoing equity-based awards, standard benefits and special provisions tailored to the recruiting situation, such as: sign-on bonus, reasonable relocation support and make-whole awards for remuneration forfeited from a prior employer (whether on account of cash bonuses, share awards, pension benefits or other forfeited items).

The Board retains the discretion to provide additional benefits where necessary or useful to recruit new Executive Directors or to secure the ongoing service of existing Executive Directors.

If we appoint an existing employee as an Executive Director of the Company, we would expect to retain legacy obligations to the employee with respect to remuneration, such as outstanding share awards. Should these differ materially from current arrangements, these will be disclosed in the next Directors' Remuneration Report following such appointment. We will also disclose remuneration details for a new Executive Director in accordance with applicable reporting requirements of the Securities and Exchange Commission.

Summary of remuneration policy – Non-Executive Directors

Under the last approved Directors' Remuneration policy, the Board has the discretion to pay fees to any or all Non-Executive Directors and/or to pay Non-Executive Directors in the form of a mixture of cash and share options. Our remuneration arrangements for Non-Executive Directors continue to comprise an award of a fixed number of share options, plus an additional number of share options or cash payment at the Director's election. The option awards and cash payments made in 2019 were established at competitive levels taking into account peer data from comparable companies provided in a benchmarking analysis undertaken by Willis Towers Watson in 2018 and are compliant with the last approved Directors' Remuneration policy.

The Committee has retained Willis Towers Watson to assist the Committee in ensuring that our remuneration arrangements for the Non-Executive Directors are competitive and appropriate by benchmarking them against comparable publicly traded biopharmaceutical companies, with an increasing focus on U.S. benchmarks and practices. We expect to continue to use remuneration consultants to assist the Committee in determining competitive levels of Non-Executive Director remuneration and specific design elements of our Non-Executive Director remuneration programme. In the absence of exceptional circumstances, Non-Executive Director remuneration is benchmarked every two years.

Our Non-Executive Directors participate in the Group's long-term incentive plans on terms similar to those used for Executive Directors. In accordance with their Letters of Appointment, each Non-Executive Director is entitled to receive

an annual award of share options, and incoming Non-Executive Directors receive an initial award of share options, and which may include RSU-style awards, with such number to be determined by the Board. In determining option awards, the Board works within benchmarking guidelines provided by remuneration consultants.

Any share options that are awarded will not be subject to performance conditions.

Our Non-Executive Directors do not receive any pension from the Company nor do they participate in any performance-related incentive plans.

The following table presents the elements of remuneration for Non-Executive Directors.

Element of Remuneration	**Purpose and link to strategy**	**Operation**	**Maximum**
Non-Executive fees	Reflects time commitments and responsibilities of each role. Reflects fees paid by similarly sized companies.	The remuneration of the Non-Executive Directors will be determined by the Board as a whole by reference to market practice and market data, on which the Committee receives independent advice, and reflects individual experience, scope of the role, time commitment and changes to responsibilities. We typically expect to align fees with the 50th percentile of peer group comparator data but may vary from this general rule where we consider that special circumstances apply or where recruitment or retention of a particular role is required. Fees will typically consist of a basic fee for Non-Executive Director responsibilities plus incremental fees for additional roles/responsibilities such as chairmanship of Board committees and a senior independent Non-Executive Director role. The Non-Executive Directors may elect to receive the fees in cash or in the form of an award of additional share options. The Non-Executive Directors do not receive any pension from the Company, nor do they participate in any performance-related incentive plans.	The value of each individual's aggregate fees will not exceed the 75th percentile of peer group comparator data for the relevant role.

Long term equity incentives	For public companies listed in the United States, equity-based remuneration is a standard component of Director remuneration. We extend equity-based awards to our Non-Executive Directors in order to be competitive with comparable companies seeking qualified Directors and to align the interests of our Non- Executive Directors with those of our shareholders.	Non-Executive Directors participate in the Group's long-term incentive plans on terms similar to those used for Executive Directors. Under their appointment letters, each Non-Executive Director is entitled to receive an annual award of options, provided that he or she continues to serve as a Director. When a new Non-Executive Director is appointed, he or she may receive an initial award of options. In either scenario, these may include RSU-style awards. The Board is able to grant share options which permit phased vesting over the period. Currently, options awarded to new Directors become fully exercisable over three years while options awarded annually are exercisable on the first anniversary of the date of grant. Any share options awarded will not be subject to performance conditions. Expected values are calculated in accordance with generally accepted methodologies based on Black-Scholes models.	Not applicable. The option awards will be determined by the Board as a whole working within benchmarking guidelines provided by our compensation consultants. Additionally, our option scheme rules set a maximum limit on the grant of options to all participants of 8% of our initial issued share capital on the date of our IPO increased by 4% on each 30 June effective from 1 July 2016.

Letters of Appointment

The Chairman and all other Non-Executive Directors have letters of appointment which set out the terms under which they provide their services to the Company and which are subject to a three month notice period either by the Company or the Non-Executive Director. Their remuneration is reviewed by the Board annually. In accordance with the Company's Articles of Association, Non-Executive Directors are included in the requirement that one-third of Directors are subject to retirement by rotation at each Annual General Meeting of shareholders. There is no remuneration payable on loss of office when, for example, a Director is not re-elected at an Annual General Meeting.

James Noble has waived all fees and equity awards for his service as a Non-Executive Director for the period from 1 September 2019 to 31 March 2020. Mr Noble is serving his nine month notice period as CEO and continued to be eligible for a bonus payment in respect of the year ended 31 December 2019, subject to the application of a company performance multiplier, and to receive his salary and benefits, which will cease on 31 March 2020. Mr Noble will be eligible for our Non-Executive Director compensation package effective from 1 April 2020.

Statement of Consideration of Employment Conditions and Differences to the Executive Director Policy

All our employees are paid a base salary and receive standard employee benefits, which vary according to whether they are employed in the UK or in the US but all are entitled to a contribution from the Group towards a pension scheme or retirement plan, as well as access to health insurance and income protection.

All employees are eligible to be considered for an annual increase in their base salaries, provided they have worked for a sufficient portion of the prior fiscal year. In addition, all employees are eligible to be considered for target annual cash bonus awards, subject to the achievement of objectives and to the overall performance of the Company, and for consideration for regular option awards. Eligibility is dependent on the employee's position and performance, with more senior employees eligible for higher bonus and option award levels.

No specific consultation with employees has been undertaken in respect of the design of the Company's senior executive remuneration policy to date although the Committee will keep this under review.

Statement of Consideration of Shareholder Views

This policy for remuneration of both Executive Directors and Non-Executive Directors was devised by a Remuneration Committee of which all members are Non-Executive Directors. The policy was also approved by the full Board.

Approval

This report was approved by the Board of Directors on 26 February 2020 and signed on its behalf by:

David M Mott
Director

2 March 2020

STATEMENT OF DIRECTORS' RESPONSIBILITIES IN RESPECT OF THE DIRECTORS' REPORT, THE STRATEGIC REPORT AND THE FINANCIAL STATEMENTS

The directors are responsible for preparing the Annual Report and the Group and parent Company financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare Group and parent Company financial statements for each financial year. Under that the law and as permitted by the NASDAQ the directors have elected to prepare the Group financial statements in accordance with International Financial Reporting Standards as adopted by the European Union (IFRSs as adopted by the EU) and applicable law and they have elected to prepare the parent Company financial statements in accordance with UK accounting standards and applicable law (UK Generally Accepted Accounting Practice), including FRS 101 Reduced Disclosure Framework.

Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and parent Company and of their profit or loss for that period. In preparing each of the Group and Parent company financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable, relevant, reliable and prudent;
- for the Group financial statements, state whether they have been prepared in accordance with IFRSs as adopted by the EU;
- for the parent Company financial statements, state whether applicable UK accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements;
- assess the Group and parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and
- use the going concern basis of accounting unless they either intend to liquidate the Group or the parent Company or to cease operations, or have no realistic alternative but to do so.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the parent Company's transactions and disclose with reasonable accuracy at any time the financial position of the parent Company and enable them to ensure that its financial statements comply with the Companies Act 2006. They are responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error, and have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Group and to prevent and detect fraud and other irregularities.

Under applicable law and regulations, the directors are also responsible for preparing a Strategic Report, a Directors' Report and a Directors' Remuneration Report that complies with that law and those regulations.

The directors are responsible for the maintenance and integrity of the corporate and financial information included on the company's website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

1 Our opinion is unmodified

We have audited the financial statements of Adaptimmune Therapeutics plc ("the parent Company") and its subsidiaries (together "the Group") for the year ended 31 December 2019 which comprise the Consolidated Income Statement, Consolidated Statement of Comprehensive Loss, the Consolidated Statement of Financial Position, the Consolidated Statement of Changes in Equity, the Consolidated Statement of Cash Flows, the Company Statement of Financial Position, the Company Statement of Changes in Equity , and the related notes, including the accounting policies in note 1.

In our opinion:

- the financial statements give a true and fair view of the state of the Group's and of the parent Company's affairs as at 31 December 2019 and of the Group's loss for the year then ended;
- the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards as adopted by the European Union;
- the parent Company financial statements have been properly prepared in accordance with UK accounting standards, including FRS 101 *Reduced Disclosure Framework*; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities are described below. We have fulfilled our ethical responsibilities under, and are independent of the Group in accordance with, UK ethical requirements including the FRC Ethical Standard as applied to listed entities. We believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion.

2 Key audit matters: including our assessment of risks of material misstatement

Key audit matters are those matters that, in our professional judgment, were of most significance in the audit of the financial statements and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by us, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. We summarise below the key audit matters in arriving at our audit opinion above. These matters were addressed, in the context of, our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

	The risk	*Our response*
The impact of uncertainties due to the UK exiting the European Union on our audit Refer to page 26 (principal risks).	**Unprecedented levels of uncertainty** All audits assess and challenge the reasonableness of estimates, in particular as described in the Evaluation of the discount rate used to initially measure lease liabilities on transition to IFRS 16 and the Evaluation of clinical materials and related committed purchase obligation for impairment analysis below, and related disclosures and the appropriateness of the going concern basis of preparation of the financial statements (see below). All of these depend on assessments of the future economic environment and the group's future prospects and performance. Brexit is one of the most significant economic events for the UK and its effects are subject to unprecedented levels of uncertainty of consequences, with the full range of possible effects unknown.	We developed a standardised firm-wide approach to the consideration of the uncertainties arising from Brexit in planning and performing our audits. Our procedures included: • **Our Brexit knowledge** – We considered the directors' assessment of Brexit-related sources of risk for the group's business and financial resources compared with our own understanding of the risks. We considered the directors' plans to take action to mitigate the risks. • **Sensitivity analysis –** When addressing areas that depend on forecasts, we compared the directors' analysis to our assessment of the full range of reasonably possible scenarios resulting from Brexit uncertainty and, where forecast cash flows are required to be discounted, considered adjustments to discount rates for the level of remaining uncertainty. • **Assessing transparency** –We considered all of the Brexit related disclosures together, including those in the strategic report, comparing the overall picture against our understanding of the risks. However, no audit should be expected to predict the unknowable factors or all possible future implications for a company and this is particularly the case in relation to Brexit.

Evaluation of the discount rate used to initially measure lease liabilities on transition to IFRS 16 Leases. Lease liability $25.4 2018: $0.0 million) Refer to page 84 (accounting policy).	**Subjective estimate** The Group measured its lease liabilities on transition to IFRS 16 based on the present value of minimum lease payments over the remaining lease terms, discounted using an incremental borrowing rates. The incremental borrowing rate was developed using information on indicative borrowing rates for companies with a similar credit rating adjusted for company and market specific risk factors. It required especially challenging auditor judgement and specialized skills and knowledge to assess the incremental borrowing rates since the company does not have any external borrowing.	Our procedures included: **Assessing principles:** We conducted a detailed assessment of the accounting policy papers that set out the Directors' interpretation of the requirements and key judgements made in determining the incremental borrowing rate used on transition to IFRS 16. We assessed the appropriateness of the new accounting policy and challenged the Directors on key assumptions made using our knowledge of Group. **Our specialist expertise:** We involved our own KPMG valuation specialists who assisted in: • Evaluating the Group's incremental borrowing rate by comparing it to a borrowing rate independently developed using publicly available market data for comparable entities, and • Developing a synthetic credit rating which was adjusted for market data of comparable companies to determine an independent range of incremental borrowing rates. The synthetic credit rating approach compared financial ratios of the Group to the ratios of other comparable public companies with established credit ratings. The model determined a median value for each financial ratio at each credit rating and then a simple average score for each financial ratio was calculated to determine a range of overall credit ratings. **Sensitivity analysis:** We performed sensitivity analyses by comparing the Group's incremental borrowing rate to that of the independently developed range noted above to evaluate the impact on the Group's measurement of the lease liabilities.

Evaluation of clinical materials and related committed purchase obligation for impairment analysis ($4 million; 2018: $5 million) Refer to page 80 (accounting policy).	**Forecast-based valuation** The Company assesses the clinical materials and related committed purchase obligations for impairment at each reporting date and whenever events or changes in circumstances indicate that the asset's carrying amount may not be recoverable, considering the on-hand materials and committed purchase obligations. During the year ended December 31, 2019 the Group recognized $5.0 million of accrued purchase commitments and research and development expense relating to the uncertainty surrounding the utility of clinical materials. A high degree of auditor judgement was required in assessing the Company's assumptions within the manufacturing forecasts relating to the shelf life of clinical materials and forecasts of clinical trial enrolments used to estimate future clinical material utilization.(See notes 1 and 22)	***Our procedures included:*** **Historical comparisons:** We evaluated the Company's ability to accurately estimate the clinical material utilization by comparing historically estimated future utilization to actual results. **Test of detail:** We assessed the assumptions, used in the impairment analysis through a combination of inquiry of finance and operations personnel and inspection of manufacturing budgets to assess the impact of clinical trial enrolment, current quantities, and forecasted demand for clinical materials. **Enquiry of third party:** We examined the Company's input of shelf life of the clinical materials into the manufacturing forecasts by obtaining third party confirmations of stability testing results. **Sensitivity analysis:** We performed a sensitivity analyses of the clinical trial enrolments and the timeline to utilize the clinical materials to evaluate their impact on the Company's clinical material impairment analysis.

Recoverability of the parent Company's investment in subsidiary and of the amounts owed by group entities **(**Investments: 2019 $124.6 million; (2018: $118.1m) (Amounts due from group entities: $331.7m of which $318.1m provided in year, net amount due from group entities $13.6m; (2018: $227.8m) Refer to pages 80 and 81 (accounting policy) and page 96 **(financial disclosures).**	**Low risk, high value Investments** The carrying amount of the parent Company's investment in subsidiaries and amounts owed by group entities are significant and at risk of being irrecoverable. There is a risk that the carrying amount of investments and intercompany receivables may become impaired if forecast financial performance or other events are not in line with expectations. The specific risks are successful regulatory approvals for clinical candidates, commercialisation of cell therapies or the inability to manufacture the cell therapies in the highly complex regulated market. The amounts owed by group entities represent 63.5% (2018: 23.6%) and 6.9% (2018: 45.2%), respectively of the parent Company's total assets. Their recoverability is not at a high risk of significant misstatement or subject to significant judgement. However, due to its materiality in the context of the parent company financial statements, these are considered to be the areas that had the greatest effect on our overall parent company audit.	***Our procedures included:*** **Tests of detail:** We **c**ompared the aggregate of the carrying amount of the investment and amounts owed by group entities to the adjusted market capitalisation as at 22 February 2020, which is an approximation of the minimum recoverable amount of the aggregation of the investment and amounts owed by group entities, to assess whether it was in excess of the aggregated carrying amount.

3 Our application of materiality and an overview of the scope of our audit

Materiality for the Group financial statements as a whole was set at $5.0m for the year ended 31 December 2019 (2018: $6.0m), determined with reference to a benchmark of Group Loss Before Tax of $130m (2018: $146.4m normalised to exclude in year's licence revenue), of which it represents 3.75% (2018: 4.1%). The benchmark is consistent with prior year but there is no licence revenue in the current year so no normalisation.

Materiality for the parent Company financial statements as a whole was set at $1.7m for the year ended 31 December 2019 (2018: $4.5m) determined with reference to a benchmark of Total Assets of $194.9m (2018: $502.3m), of which it represents 0.9% (2018: 0.9%). The benchmark is consistent with prior year.

We agreed to report to the Audit Committee any corrected or uncorrected identified misstatements exceeding $0.25m (2018: $0.2m), in addition to other identified misstatements that warranted reporting on qualitative grounds.

Of the 3 (2018: 3) reporting components, we subjected 3 (2018: 3) to full scope audits for Group reporting purposes. The components within the scope of our work accounted for 100% of Group revenue, loss before tax and total assets. The Group audit team carried out the audits of all 3 components (2018: 3), which includes the audit of the parent company, according to the following component materiality's, having regard to the mix of size and risk profile of the Group across the components:

- Adaptimmune Limited: $4 million (2018: $4.5 million)
- Adaptimmune LLC: $3.5 million (2018: $3 million)

The group team visited 2 (2018:2) component locations in the UK and USA (2018: UK and USA)

4 We have nothing to report on going concern

The Directors have prepared the financial statements on the going concern basis as they do not intend to liquidate the Company or the Group or to cease their operations, and as they have concluded that the Company's and the Group's financial position means that this is realistic. They have also concluded that there are no material uncertainties that could have cast significant doubt over their ability to continue as a going concern for at least a year from the date of approval of the financial statements ("the going concern period").

Our responsibility is to conclude on the appropriateness of the Directors' conclusions and, had there been a material uncertainty related to going concern, to make reference to that in this audit report. However, as we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgements that were reasonable at the time they were made, the absence of reference to a material uncertainty in this auditor's report is not a guarantee that the group or the company will continue in operation.

In our evaluation of the Directors' conclusions, we considered the inherent risks to the Group's and Company's business model and analysed how those risks might affect the Group's and Company's financial resources or ability to continue operations over the going concern period. The risks that we considered most likely to adversely affect the Group's and Company's available financial resources over this period were:

- Possible failure of pre-clinical programmes or clinical trials
- The need to obtain marketing approval of the Group's TCR Therapeutic candidates
- The ability to manufacture their cell therapies reliably or at acceptable costs and within the required timescales
- The need to successfully commercialize and gain market acceptance of the Group's TCR therapeutic candidates, and protection of proprietary technology
- The ability to secure future funding to support research and development activities
- The impact of the UK's exit of the European union on the Group's supply chain, or the ability to secure sponsorship for EU based clinical trials.

As these were risks that could potentially cast significant doubt on the Group's and the Company's ability to continue as a going concern, we considered sensitivities over the level of available financial resources indicated by the Group's financial forecasts taking account of reasonably possible (but not unrealistic) adverse effects that could arise from these risks individually and collectively and evaluated the achievability of the actions the Directors consider they would take to improve the position should the risks materialise. We also considered less predictable but realistic second order impacts, such as the impact of the UK exiting the EU or the erosion of customer or supplier confidence, which could result in a rapid reduction of available financial resources.

Based on this work, we are required to report to you if we have concluded that the use of the going concern basis of accounting is inappropriate or there is an undisclosed material uncertainty that may cast significant doubt over the use of that basis for a period of at least a year from the date of approval of the financial statements.

We have nothing to report in these respects, and we did not identify going concern as a key audit matter.

5 We have nothing to report on the other information in the Annual Report

The directors are responsible for the other information presented in the Annual Report together with the financial statements. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except as explicitly stated below, any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether, based on our financial statements audit work, the information therein is materially misstated or inconsistent with the financial statements or our audit knowledge. Based solely on that work we have not identified material misstatements in the other information.

Strategic report and directors' report

Based solely on our work on the other information:

- we have not identified material misstatements in the strategic report and the directors' report;
- in our opinion the information given in those reports for the financial year is consistent with the financial statements; and
- in our opinion those reports have been prepared in accordance with the Companies Act 2006.

Directors' remuneration report

In our opinion the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

6 We have nothing to report on the other matters on which we are required to report by exception

Under the Companies Act 2006, we are required to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

We have nothing to report in these respects.

7 Respective responsibilities

Directors' responsibilities

As explained more fully in their statement set out on page 62, the directors are responsible for: the preparation of the financial statements including being satisfied that they give a true and fair view; such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; assessing the Group and parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and using the going concern basis of accounting unless they either intend to liquidate the Group or the parent Company or to cease operations, or have no realistic alternative but to do so.

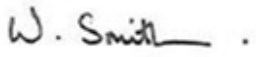
Auditor's responsibilities

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue our opinion in an auditor's report. Reasonable assurance is a high level of assurance, but does not guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

A fuller description of our responsibilities is provided on the FRC's website at www.frc.org.uk/auditorsresponsibilities.

8 The purpose of our audit work and to whom we owe our responsibilities

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members, as a body, for our audit work, for this report, or for the opinions we have formed.



William Smith, (Senior Statutory Auditor)
for and on behalf of KPMG LLP, Statutory Auditor
Chartered Accountants
Dukes Keep Marsh Lane
Southampton
SO14 3EX
02 March 2020

For the year ended 31 December	*Note*	2019 $'000	2018 $'000
Revenue	*2*	**1,122**	59,505
Research & development expenses		**(108,524)**	(115,242)
Administrative expenses		**(42,571)**	(48,286)
Other income	*3*	**974**	1,449
		(150,121)	(162,079)
Operating loss	*4*	**(148,999)**	(102,574)
Finance income	*7*	**2,972**	2,849
Finance expense	*7*	**(2,899)**	(7,992)
Loss before tax		**(148,926)**	(107,717)
Taxation credit	*8*	**18,341**	16,162
Loss for the year		**(130,585)**	(91,555)
Basic and diluted loss per share	*1*	**(0.21)**	(0.16)
Weighted average number of shares used to calculate basic and diluted loss per share	*1*	**629,805,218**	584,338,942

CONSOLIDATED STATEMENT OF COMPREHENSIVE LOSS

For the year ended 31 December	2019 $'000	2018 $'000
Loss for the year	**(130,585)**	(91,555)
Other comprehensive (loss) income for the year, net of income tax		
Items that are or may be reclassified subsequently to profit or loss:		
Foreign exchange translation differences	**(9,049)**	8,261
Foreign currency gains on intercompany loans classified as a net investment in a foreign operation	**11,783**	
Net change in fair value of financial assets at fair value through OCI	**194**	62
Total comprehensive loss for the year	**(127,657)**	(83,232)

All of the above figures relate to continuing operations.

The notes on pages 77 to 113 form part of these financial statements.

As of year ended 31 December	*Note*	2019 $'000	2018 $'000
Assets			
Non-current assets			
Property, plant & equipment	*9*	**31,068**	36,118
Right-of-use lease assets	*1,10*	**20,104**	
Intangibles	*11*	**13,383**	7,686
Clinical materials	*1*	**2,503**	3,953
Restricted cash	*14*	**4,496**	4,097
Total non-current assets		**71,554**	51,854
Current assets			
Other current assets	*15*	**11,664**	9,310
Trade and other receivables	*16*	**—**	192
Tax receivable		**19,284**	16,459
Financial assets at fair value through OCI	*17, 23*	**39,130**	136,755
Cash and cash equivalents	*18*	**50,412**	68,379
Total current assets		**120,490**	231,095
Total assets		**192,044**	282,949
Equity & liabilities			
Equity			
Share capital	*19*	**943**	939
Share premium	*19*	**382,265**	381,903
Other reserve	*19*	**131,013**	131,013
Accumulated Other comprehensive income	*19*	**(14,106)**	(17,034)
Retained losses		**(365,976)**	(243,722)
Total Equity		**134,139**	253,099
Non-Current liabilities			
Lease liability	*1, 10*	**22,966**	—
Trade and other payables	*20*	**598**	5,414
Total Non-Current liabilities		**23,564**	5,414
Current liabilities			
Trade and other payables	*21*	**29,341**	24,436
Provisions	*22*	**5,000**	—
Total current liabilities		**34,341**	24,436
Total equity & liabilities		**192,044**	282,949

The notes on pages 77 to 113 form part of these Financial Statements. The financial statements on pages 71 to 113 were approved by the Board of Directors on 26 February 2020 and are signed on its behalf by:

Adrian Rawcliffe
Director
2 March 2020

COMPANY STATEMENT OF FINANCIAL POSITION

As of year ended 31 December	Note	2019	2018
		$'000	$'000
Assets			
Non-current assets			
Investments in subsidiaries	*12*	**124,565**	118,062
Financial assets at amortised cost	*13*	**—**	219,056
Total non-current assets		**124,565**	337,118
Current assets			
Prepayments		**478**	250
Trade and other receivables	*16*	**13,849**	8,692
Financial assets at fair value through OCI	*17*	**39,130**	136,755
Cash and cash equivalents		**17,678**	19,461
Total current assets		**71,135**	165,158
Total assets		**195,700**	502,276
Equity & liabilities			
Equity			
Share capital	*19*	**943**	939
Share premium	*19*	**382,265**	381,903
Other reserves	*19*	**79,990**	79,990
Accumulated Other comprehensive income		**38**	(156)
Retained earnings		**(268,753)**	37,640
Total Equity		**194,483**	500,316
Current liabilities			
Trade and other payables	*21*	**1,217**	1,960
Total equity & liabilities		**195,700**	502,276

The notes on pages 77 to 113 form part of these Financial Statements

The financial statements on pages 71 to 113 were approved by the Board of Directors on 26 February 2020 and are signed on its behalf by:

Adrian Rawcliffe
Director

2 March 2020

	Share Capital $'000	Share Premium $'000	Other reserve $'000	Exchange reserve $'000	Fair value reserves $'000	Retained Losses $'000	Total equity $'000
Balance at 1 January 2018	854	279,298	131,013	(25,139)	(218)	(168,112)	217,696
Total comprehensive loss for the year:							
Loss for the year	—	—	—	—	—	(91,555)	(91,555)
Other comprehensive income for the year	—	—	—	8,261	62	—	8,323
Issuance of common stock, net of issuance costs	78	99,575	—	—	—	—	99,653
Issuance of common stock upon exercise of options	7	3,030	—	—	—	—	3,037
Transactions with owners, recorded directly in equity:							
Equity-settled share based payment expense	—	—	—	—	—	15,945	15,945
Balance at 31 December 2018 and at 1 January 2019	**939**	**381,903**	**131,013**	**(16,878)**	**(156)**	**(243,722)**	**253,099**
Total comprehensive loss for the year:							
Loss for the year	—	—	—	—	—	(130,585)	(130,585)
Other comprehensive income for the year	—	—	—	2,734	194	—	2,928
Issuance of common stock upon exercise of options	4	362	—	—	—	—	366
Transactions with owners, recorded directly in equity:							
Equity-settled share based payment expense	—	—	—	—	—	8,331	8,331
Balance at 31 December 2019	**943**	**382,265**	**131,013**	**(14,144)**	**38**	**(365,976)**	**134,139**

The notes on pages 77 to 113 form part of these Financial Statements

COMPANY STATEMENT OF CHANGES IN EQUITY

	Share Capital	Share Premium	Other Reserve	Fair value reserves	Retained Earnings	Total Equity
	$'000	$'000	$'000	$'000	$'000	$'000
Balance at 1 January 2018	854	279,298	79,990	—	19,115	379,257
Total comprehensive income for the year:						
Profit for the year	—	—	—	—	2,580	2,580
Other comprehensive loss for the year	—	—	—	(156)	—	(156)
Transactions with owners, recorded directly in equity:						
Issuance of common stock, net of issuance costs	78	99,575	—	—	—	99,653
Issuance of common stock upon exercise of options	7	3,030	—	—	—	3,037
Transactions with owners, recorded directly in equity:						
Equity-settled share based payment expense	—	—	—	—	15,945	15,945
Balance at 31 December 2018	**939**	**381,903**	**79,990**	**(156)**	**37,640**	**500,316**
Balance at 1 January 2019	939	381,903	79,990	(156)	37,640	500,316
Total comprehensive loss for the year:						
Loss for the year	—	—	—	—	(314,724)	(314,724)
Other comprehensive income for the year	—	—	—	194	—	194
Transactions with owners, recorded directly in equity:						
Issuance of common stock upon exercise of options	4	362	—	—	—	366
Transactions with owners, recorded directly in equity:						
Equity-settled share based payment expense	—	—	—	—	8,331	8,331
Balance at 31 December 2019	**943**	**382,265**	**79,990**	**38**	**(268,753)**	**194,483**

The notes on pages 77 to 113 form part of these Financial Statements

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December	Note	2019 $'000	2018 $'000
Cash flows from operating activities			
Loss for the year before tax		**(148,926)**	(107,717)
Adjustments for:			
Depreciation	*9*	**7,172**	7,188
Amortisation	*11*	**838**	622
Equity-settled share based payment expense	*25*	**8,331**	15,945
Realized (gains) losses on maturity or redemption of financial assets at fair value through OCI		**(13)**	2,473
Unrealized foreign exchange losses	*7*	**1,077**	6,191
Net interest income	*7*	**(950)**	(2,849)
Other		**(841)**	(36)
Changes in:			
Decrease in other current and other non-current assets		**458**	551
(Increase) decrease in trade and other receivables		**(1,450)**	742
Increase (decrease) in trade and other payables		**10,519**	(40,923)
Cash used in operations		**(123,785)**	(117,814)
Net taxes received		**16,059**	10,457
Lease interest paid		**(1,822)**	—
Interest received		**3,426**	3,114
Net cash used in operating activities		**(106,122)**	(104,242)
Cash flows from (used in) investing activities			
Acquisition of property, plant & equipment		**(1,592)**	(3,910)
Acquisition of intangibles		**(6,014)**	(944)
Investment in financial assets at fair value through OCI		**(27,284)**	(150,787)
Maturity of financial assets at fair value through OCI		**125,303**	138,038
Net cash from (used in) investing activities		**90,413**	(17,603)
Net cash (used in) from financing activities			
Proceeds from issuance of common stock		**—**	99,653
Proceeds from exercise of share options		**366**	3,037
Principal element of lease payments		**(2,241)**	—
Net cash (used in) from financing activities		**(1,875)**	102,690
Net decrease in cash and cash equivalents		**(17,584)**	(19,155)
Effect of movements in exchange rates on cash held		**(383)**	3,491
Cash and cash equivalents at start of year		**68,379**	84,043
Cash and cash equivalents at year end		**50,412**	68,379

The notes on pages 77 to 113 form part of these Financial Statements

1. ACCOUNTING POLICIES

(a) Domicile

Adaptimmune Therapeutics plc is registered in England and Wales. Its registered office is 60 Jubilee Avenue, Milton Park, Abingdon, Oxfordshire OX14 4RX.

The Group and its subsidiaries (the "Group") are a clinical-stage biopharmaceutical group focused on novel cancer immunotherapy products based on its T-cell receptor platform. It has developed a comprehensive proprietary platform that enables it to identify cancer targets, find and genetically engineer T-cells receptors, or TCRs, and produce TCR therapeutic candidates for administration to patients. The Group engineers TCRs to increase their affinity to cancer specific peptides in order to destroy cancer cells in patients.

The Group is subject to a number of risks similar to other biopharmaceutical companies in the early stage, including, but not limited to, the need to obtain adequate additional funding, possible failure of preclinical programmes or clinical trials, the need to obtain marketing approval for its TCR therapeutic candidates, competitors developing new technological innovations, the need to successfully commercialize and gain market acceptance of the Group's TCR therapeutic candidates, and protection of proprietary technology. If the Group does not successfully commercialize any of its TCR therapeutic candidates, it will be unable to generate product revenue or achieve profitability. As at 31 December 2019, the Group had retained losses of approximately $366.0 million.

(b) Statement of Compliance

The consolidated financial statements have been prepared and approved by the Directors in accordance with International Financial Reporting Standards ("IFRS") as adopted by the EU and in compliance with IFRSs issued by the IASB.

The separate financial statements of the Company are drawn up in accordance with the Companies Act 2006 and Financial Reporting Standard 101. On publishing the parent company financial statements here together with the group financial statements, the Company is taking advantage of the exemption in s408 of the Companies Act 2006 not to present its individual income statement, cash flow statement and related notes that form a part of these approved financial statements. The Company has also taken FRS 101 exemptions from: disclosing transactions with wholly owned subsidiaries; disclosures in respect of capital management; disclosures in respect of the compensation of Key Management Personnel; disclosure of share-based payment information required under IFRS 2; and, certain fair value measurement disclosures required under IFRS 13.

(c) Basis of Preparation

The financial statements have been prepared on the historical cost basis except as required by the accounting standards. The consolidated financial statements of Adaptimmune Therapeutics plc and its subsidiaries, Adaptimmune Limited and Adaptimmune LLC and the financial statements for Adaptimmune Therapeutics plc included herein are for the years ended 31 December 2019 and 2018.

The accounting policies set out below have, unless otherwise stated, been applied consistently to all periods presented in these financial statements.

(d) Going Concern

The Group's business activities, together with the factors likely to affect its future development, performance and position are set out in the Strategic Report on pages 10 to 36. The financial position of the Group, its cash flows, liquidity position and borrowing facilities are described in the primary statements and notes of this set of financial statements. In addition, note 23 includes the Group's objectives, policies and processes for managing its capital and its financial risk management objectives.

The Group's financial position, including its cash flows and liquidity position, are fully described in the consolidated financial statements. As of 31 December 2019, the Group had cash and cash equivalents of $50.4 million, marketable securities of $39.1 million, and stockholders' equity of $134.1 million. On 13 January 2020, the Group entered into a co-development and co-commercialization agreement with Astellas Pharma Inc. and received an upfront payment of $50.0 million in January 2020 under the agreement. The Group is also entitled to receive research funding of up to $7.5 million per year. In addition, on 24 January 2020, the Company closed an underwritten public offering of 21,000,000 of its American Depository Shares (ADSs), which, together with the full exercise by the underwriters on 7 February 2020 of their option to purchase 3,150,000 additional ADSs, generated net proceeds of $89.8 million.

During the year ended 31 December 2019, the Group incurred a net loss of $130.6 million, used cash of $106.1 million in its operating activities, and generated revenues of $1.1 million. The Company has incurred net losses in most periods since inception, and it expects to incur operating losses in future periods. We believe that our cash, cash equivalents and marketable securities combined with the upfront payment and the recently completed public offering of ADSs described above, will be sufficient to fund our operations, based upon our currently anticipated research and development activities and planned capital spending.

Having reviewed cash flow forecasts for at least the 12 month period following the date of signing the financial statements, the Directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future, and not less than 12 months from the signing of these financial statements.

(e) Management Estimates and Judgements

The preparation of the financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions. These judgements, estimates and assumptions affect the reported amounts of assets and liabilities as well as income and expenses in the financial statement provided.

The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. The actual outcome is not expected to differ significantly from the estimates and assumptions made.

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

(f) Basis of Consolidation

Subsidiaries

Subsidiaries are entities controlled by the Group. Control exists when the Group has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, the Group takes into consideration potential voting rights that are currently exercisable. The acquisition date is the date on which control is transferred to the acquirer. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

Foreign Currency

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at the foreign exchange rate in effect at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are retranslated to the functional currency at the foreign exchange rate in effect at that date. Foreign exchange differences arising on translation are recognised in the income statement. Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the

transaction. Non-monetary assets and liabilities denominated in foreign currencies that are stated at fair value are retranslated to the functional currency at foreign exchange rates ruling at the dates the fair value was determined.

The assets and liabilities of foreign operations are translated to the Group's presentational currency, US dollars, at foreign exchange rates in effect at the balance sheet date. The revenues and expenses of foreign operations are translated at an average rate for the year where this rate approximates to the foreign exchange rates in effect at the dates of the transactions. Exchange differences arising from this translation of foreign operations are reported as an item of other comprehensive income and accumulated in the exchange reserve.

Our UK subsidiary has an intercompany loan balance in US dollars payable to the ultimate parent company, Adaptimmune Therapeutics plc. Beginning on 1 July 2019, the intercompany loan was considered a net investment in a foreign operation as settlement is neither planned nor likely in the foreseeable future. It is Adaptimmune Therapeutics plc's intent not to request payment of the intercompany loan for the foreseeable future. Since July 1, 2019, the foreign exchange gain or losses arising on the revaluation of intercompany loans of a long-term investment nature are reported within the Consolidated Statement of other comprehensive income (loss).

(g) Property, Plant and Equipment

Property, plant and equipment are stated at their purchase cost, together with any incidental expenses of acquisition, less accumulated depreciation.

Depreciation is calculated so as to write off the cost of the assets less their estimated residual values, on a straight line basis over the expected useful economic lives of the assets concerned. Depreciation is not charged on construction in progress until the asset is completed and ready for its intended use.

The following table shows the generally applicable expected useful economic life for each category of asset:

Computer equipment	3 to 5 years
Laboratory equipment	5 years
Office equipment	5 years
Leasehold improvements	the shorter of the estimated useful life and the expected duration of the lease

(h) Intangibles

Research and development

Expenditure on research activities is recognised in the income statement as incurred. Development costs are capitalised only after technical and commercial feasibility of the asset for sale or use have been established. When making this determination the Group considers:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits can be demonstrated;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

Subsequent to initial recognition, development expenditure is measured at cost less accumulated amortisation and any accumulated impairment losses. Amortisation costs are recognised within Research & development expenses and administrative expenses in the Consolidated Statement of Comprehensive Income.

If the development costs do not meet the criteria for capitalization, the costs are recognised in the income statement as incurred.

The Group currently does not have any development projects which have met the above criteria.

Acquired in-process research and development

Acquired research and development intangible assets, which are still under development, such in-licensed or acquired compounds, are recognised as In-Process Research & Development (IPR&D). IPR&D assets are stated at their purchase cost, together with any incidental expenses of acquisition.

IPR&D assets are not amortized but evaluated for potential impairment on an annual basis or when facts and circumstances warrant. Impairment charges are recorded in the research & development within the consolidated income statement.

Software licenses

Acquired computer software licences are capitalised as intangibles assets and stated at costs incurred to acquire and bring to use the specific software. These costs are amortised over their estimated useful lives.

(i) Investment in Subsidiaries

Investments in subsidiary undertakings are stated at cost less any impairment. Where management identify uncertainty over such investments, the investment is impaired to an estimate of its net realisable value.

(j) Clinical Materials and Provisions

Clinical materials with alternative use, which are not held for sale are capitalised as either other current assets or other non-current assets, depending on the timing of their expected consumption. At each reporting date, management considers whether the materials are impaired due to excess quantity over current forecast demand by considering manufacturing forecasts, forecasts of clinical trial enrolments, stability testing results, technological developments and future development programs. The Group also considers whether the unavoidable costs of meeting obligations for minimum purchase commitments exceed the economic benefits it expects to receive under the contract, and in such cases, a provision is recognised. Details of impairment of the Group's purchase commitments are provided in Note 22.

(k) Impairment of Non-financial Assets Excluding Inventories and Deferred Tax Assets

The carrying amounts of the Group's non-financial assets, other than inventories and deferred tax assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. For intangible assets that have indefinite useful lives or that are not yet available for use, the recoverable amount is estimated each period at the same time.

(l) Financial Instruments

The Group classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value (either through other comprehensive income ("OCI") or through profit or loss); and
- those to be measured at amortised cost.

The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows. For assets measured at fair value, gains and losses will either be recorded in profit or loss or OCI. The group reclassifies debt investments when and only when its business model for managing those assets changes.

(ii) Recognition and derecognition

Regular way purchases and sales of financial assets are recognised on trade-date, the date on which the group commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the group has transferred substantially all the risks and rewards of ownership.

(iii) Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit and loss are expensed in profit or loss.

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the asset. The Group's debt securities are held for collection of cash flows where those cash flow represent solely payments of principal and interest and to manage liquidity. As of 31 December 2019, the Group has invested in debt securities, including corporate debt securities and commercial paper, and money market funds. The debt securities are subsequently measured at fair value through OCI. Interest income from these financial assets is included in finance income using the effective interest rate method. Any gain or loss arising on derecognition is recognised directly in profit or loss and presented in other gains/(losses).

(iv) Impairment

The Group recognises loss allowances for expected credit losses on financial assets measured at amortised cost, debt investments measured at fair value through OCI, and contract assets.

The Group measures loss allowances at an amount equal to lifetime expected credit losses, except for debt securities that are determined to have low credit risk at the reporting date and other debt securities and bank balances for which credit risk has not increased significantly since initial recognition, which are measured at 12-month expected credit losses.

Loss allowances for trade receivables and contract assets are always measured at an amount equal to lifetime expected credit losses.

For debt securities at fair value through OCI, the loss allowance is charged to profit or loss and is recognised in OCI.

Loss allowances for financial assets measured at amortised cost are deducted from the gross carrying amount of the assets. Details of loss allowances recognised relating to the Company's intercompany loan receivable are provided in Note 13.

Debt securities

Our investment in debt securities are subject to credit risk. The Group's investment policy limits investments to certain types of instruments, such as money market instruments and corporate debt securities, places restrictions on maturities and concentration by type and issuer and specifies the minimum credit ratings for all investments and the average credit quality of the portfolio. The debt securities have been determined to have a low credit risk at 1 January 2019 and 31 December 2019 and 12-month expected credit losses are not material.

Cash and cash equivalents

While cash and cash equivalents are also subject to the impairment requirements of IFRS 9, no material impairment loss was identified.

Trade and other receivables

The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables and contract assets.

Cash and Cash Equivalents

Cash and cash equivalents comprise cash balances, short-term deposits and available-for-sale financial assets with maturities of three months. Debt securities with a maturity at acquisition of less than three months are categorized as cash equivalents.

Financial Assets Impairment

Until 1 January 2018, a financial asset not carried at fair value through profit or loss is assessed at each reporting date to determine whether there is objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably. If any such evidence exists, the amount of the impairment is determined as follows:

- ***Available-For-Sale Financial Assets***

  When a decline in fair value of an available-for-sale financial asset has been recognised in other comprehensive income and there is objective evidence that the asset is impaired, the cumulative loss that has been recognised in other comprehensive income is reclassified from equity to profit or loss as a reclassification adjustment. The amount of the cumulative loss that is reclassified from equity to profit or loss is the difference between the acquisition cost (net of any principal repayment and amortisation) and current value, less any impairment loss on that financial asset previously recognised in the profit or loss. If in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognised in profit or loss, the impairment loss is reversed, with the amount of the reversal recognised in the profit or loss.

- ***Financial Assets Measured At Amortised Cost (Including Receivables)***

  An impairment loss in respect of a financial asset measured at amortised cost is calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate. Interest on the impaired asset continues to be recognised through the unwinding of the discount. When a subsequent event causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through profit or loss.

(m) Fair value hierarchy

The Group is required to disclose information on all assets and liabilities reported at fair value that enables an assessment of the inputs used in determining the reported fair values. The fair value hierarchy prioritizes valuation inputs based on the observable nature of those inputs. The hierarchy defines three levels of valuation inputs:

Level 1 — Quoted prices in active markets for identical assets or liabilities

Level 2 — Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly

Level 3 — Unobservable inputs that reflect the Group's own assumptions about the assumptions market participants would use in pricing the asset or liability

The carrying amounts of the Group's cash and cash equivalents, restricted cash, accounts receivable, accounts payable and accrued expenses approximate fair value because of the short-term nature of these instruments. The fair value of available-for-sale financial assets, which are measured at fair value on a recurring basis is detailed in Note 23.

(n) Revenue

The Group has one contract with a customer, which is the GSK Collaboration and License Agreement. The GSK Collaboration and License Agreement consists of multiple performance obligations, including the transition of the NY-ESO SPEAR T-cell program to GSK, the development of a second target, PRAME, the NY-ESO License, and following its nomination in 2019, a third target under the Agreement.

The Group determines the variable consideration to be included in the transaction price by estimating the most-likely amount that will be received and then applies a constraint to reduce the consideration to the amount which is probable of being received. In estimating the amount of variable consideration to be included in the transaction price, the Group considers the latest project plan and other available information. The determination of whether a milestone is probable includes consideration of the following factors:

- Whether achievement of a development milestone is highly susceptible to factors outside the entity's influence, such as milestones involving the judgment or actions of third parties, including regulatory bodies or the customer;
- Whether the uncertainty about the achievement of the milestone is not expected to be resolved for a long period of time;
- Whether the Group can reasonably predict that a milestone will be achieved based on previous experience; and
- The complexity and inherent uncertainty underlying the achievement of the milestone.

The determination of whether future milestones are probable requires significant judgment and the impact of a change in the determination of whether a milestone is probable is recognised in the period the judgment is revised. This can significantly impact the revenue recognised. In the year ended 31 December 2018, revenue of $10.4 million, was recognised due to development milestones becoming probable in the period. No significant changes to this assessment of the probability of further milestones being met in relation to GSK's development of NY-ESO occurred during the year ended 31 December 2019. As the development program progresses and the uncertainties underlying the milestones resolve, further milestones may become probable.

Upfront payments are allocated between the performance obligations using the Group's best estimate of the relative selling price of each performance obligation. The best estimate of the selling price is determined after considering all reasonably available information, including internal pricing objectives used in negotiating the contract, together with internal data regarding the cost and margin of providing services for each deliverable taking into account the different stage of development of each development program. The variable consideration is allocated to the performance obligation to which it relates.

The amount of the transaction price allocated to the performance obligation is recognised as or when the Group satisfies the performance obligation. The Group satisfied the performance obligations relating to the transition of the NY-ESO SPEAR T-cell program and the development of a second target, PRAME, over time and recognised revenue based on an estimate of the percentage of completion of the project determined based on the costs incurred on the project as a percentage of the total expected costs. The NY-ESO transition and the PRAME pre-clinical development program were completed in 2018.

The performance obligation relating to the NY-ESO License was recognised at a point-in-time, upon commencement of the license in September 2018.

In 2019, GSK has nominated its third target under the Collaboration and License Agreement. Development of products to this target commenced in the year ended 31 December 2019, and the Group received $3.2 million following the nomination of the target. The development of products to the third target is a separate performance obligation, which is expected to be recognised by the end of 2020 as the development progresses. Future revenues will depend on the progress of the development programs within the Collaboration and License Agreement, and GSK's progress with the NY-ESO program, which are difficult to predict.

(o) Leases (after the adoption of IFRS 16, Leases ("IFRS 16"))

On 1 January 2019, the Group adopted a new standard, IFRS 16, Leases. The Group has adopted IFRS 16 using the modified retrospective approach from 1 January 2019, and has not restated comparatives for the 2018 reporting period, as permitted under the standard. The reclassifications and the adjustments arising from the new leasing rules have been recognised in the opening balance sheet on 1 January 2019.

On adoption of IFRS 16, the Group recognised lease liabilities in relation to leases which had previously been classified as 'operating leases' under the principles of IAS 17 Leases. These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as of 1 January 2019. The weighted average incremental borrowing rate applied to the lease liabilities on 1 January 2019 was 7.2%.

In applying IFRS 16 for the first time, the Group has used the following practical expedients and elections permitted by the standard:

- relying on previous assessments on whether leases are onerous as an alternative to performing an impairment review; there were no onerous contracts as at 1 January 2019
- accounting for operating leases with a remaining lease term of less than 12 months as at 1 January 2019 as short-term leases
- using hindsight in determining the lease term where the contract contains options to extend or terminate the lease
- relying on its assessment made applying IAS 17 and Interpretation 4 (*Determining whether an Arrangement contains a Lease*) for contracts entered into before the 1 January 2019.

The Group determines whether an arrangement is a lease at contract inception by establishing whether the contract conveys the right to use, or control the use of, identified property, plant, or equipment for a period of time in exchange for consideration. The Group recognises a right-of-use (ROU) asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low value assets. For these leases, the Group recognises the lease payments as an operating expense on a straight-line basis over the term of the lease. Right-of-use (ROU) assets and lease liabilities recognised in the Consolidated Statement of Financial Position represent the right to use an underlying asset for the lease term and an obligation to make lease payments arising from the lease respectively.

ROU assets and lease liabilities are recognised at the lease commencement date based on the present value of minimum lease payments over the lease term. Since the rate implicit in the lease is not readily determinable, the Group uses its incremental borrowing rates (the rate of interest that the Group would have to pay to borrow on a collateralized basis over a similar term for an amount equal to the lease payments in a similar economic environment) based on the information available at commencement date in determining the discount rate used to calculate the present value of lease payments. As the Group has no external borrowings, the incremental borrowing rates are determined using information on indicative borrowing rates that would be available to the Group based on the value, currency and borrowing term provided by financial institutions, adjusted for company and market specific factors. The lease term is based on the non-cancellable period in the lease contract, and options to extend the lease are included when it is reasonably certain that the Group will exercise that option. Any termination fees are included in the calculation of the ROU asset and lease liability when it is assumed that the lease will be terminated.

The Group accounts for lease components (e.g. fixed payments including rent and termination costs) separately from non-lease components (e.g. common-area maintenance costs and service charges based on utilization) which are recognised over the period in which the obligation occurs.

At each reporting date, the lease liabilities are increased by interest and reduced by repayments made under the lease agreements.

The right-of-use asset is subsequently measured at cost less accumulated depreciation and impairment losses. Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. If the Group is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life.

The Group has leases in relation to property for office and research facilities. All of the leases have termination options, and it is assumed that the initial termination options for the buildings will be activated for most of these. The maximum lease term without activation of termination options is to 2041.

In May 2017, the Group entered into an agreement for the lease of a building at Milton Park, Oxfordshire, U.K. The term of the lease expires on October 23, 2041, with termination options exercisable by the Group on the fifth anniversary of the lease commencement date and at approximately five yearly intervals thereafter.

In September 2015, the Group entered into an agreement for a 25- year lease, with early termination options, for a research and development facility in Oxfordshire, U.K. In October 2016, the Group entered into the lease for that facility following the completion of construction.

In July 2015, the Group entered into a 15 year lease agreement, with an early termination option at 123 months, for offices and research facilities in Philadelphia, U.S. The lease commenced upon completion of construction in October 2016.

The Group has elected not to recognize a right-of-use asset and lease liability for short-term leases. A short-term lease is a lease with a lease term of 12 months or less and which does not include an option to purchase the underlying asset that the lessee is reasonably certain to exercise.

ROU depreciation costs are categorised within Research and development and General and administrative expenses in the Consolidated Income Statement. Interest costs on lease liabilities are categorised within Finance expense in the Consolidated Income Statement. In the Consolidated Statement of Cash Flows, interest payments are categorised within Cash flows from operating activities, and principal repayments are categorised within Cash flows from financing activities.

(p) Operating Leases (prior to the adoption of IFRS 16)

Prior to the adoption of IFRS 16 on 1 January 2019, costs in respect of operating leases were charged to the income statement on a straight line basis over the lease term. The operating lease costs under previous guidance for the year ended 31 December 2018 were $3,399,000.

(q) Research and Development Expenditure

Research and development expenditure includes direct and indirect costs of these activities, including staff costs and materials, as well as external contracts. All such expenditure is expensed as incurred unless the capitalisation criteria of International Accounting Standard 38, 'Intangible Assets' have been satisfied.

(r) Pension Costs

The Group operates a defined contribution pension scheme for its executive directors and employees. The contributions to this scheme are expensed to the Income Statement as they fall due.

(s) Share-Based Payments

The Group operates equity-settled, share-based compensation plans. Certain employees of the Group are awarded options over the shares in the parent company. The fair value of the employee services received in exchange for these grants of options is recognised as an expense, using the Black-Scholes option-pricing model, with a corresponding increase in reserves. The total amount to be expensed over the vesting year is determined by reference to the fair value of the options granted and assumptions about the number of options that are expected to vest. The Group has analysed historic forfeiture rates for share options and determined approximately 14% of options granted are not expected to vest due to forfeitures.

(t) Taxation

Tax on the profit or loss for the year comprises current and deferred tax. Tax is recognised in the income statement except to the extent that it relates to items recognised directly in equity, in which case it is recognised in equity.

Current tax is the expected tax payable or receivable on the taxable income or loss for the current or prior years, using tax rates enacted or substantively enacted at the balance sheet date.

Current tax includes tax credits form the U.K and U.S. taxing authorities, including the U.K. research and development tax credit regime applicable to small and medium sized companies (the "U.K. SME Tax Credit"), the U.S. Research Tax Credit and the U.S. Orphan Drug Credit. The tax credits for each period are estimated based on calculations that conform to the applicable tax regulations. Receipts under the U.K. R&D expenditure credit ("RDEC") scheme, which may be reimbursed and are similar in nature to grant income, are presented within other income.

Deferred tax is provided on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The amount of deferred tax provided is based on the expected manner of realisation or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantively enacted at the balance sheet date.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the asset can be utilised.

(u) Dividends

Dividends received from subsidiary undertakings are accounted for when received. Dividends paid are accounted for in the period when they are paid.

(v) Earnings per Share

Basic loss per share is determined by dividing net loss attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the period. Diluted loss per share is determined by dividing net loss attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the period, adjusted for the dilutive effect of all potential ordinary shares that were outstanding during the period. Potentially dilutive shares are excluded from the when the effect would be to increase diluted earnings per share or reduce diluted loss per share.

The following table reconciles the numerator and denominator in the basic and diluted loss per share computation (in thousands):

For the year ended 31 December	**2019**	2018
	$'000	$'000
Numerator for basic and diluted loss per share		
Loss for year	**(130,585)**	(91,555)
Loss attributable to shareholders used for basic and diluted EPS calculation	**(130,585)**	(91,555)

Denominator for basic and diluted loss per share

Weighted average number of shares used to calculate basic and diluted loss per share	**629,805,218**	584,338,942

The effects of the following potentially dilutive equity instruments have been excluded from the diluted loss per share calculation because they would have an antidilutive effect on the loss per share for the period:

As of	2019	2018
Weighted average number of share options	**96,675,101**	88,553,474

From 1 January 2020 through to 29 February 2020, the Group granted 10,229,280 options over ordinary shares with an exercise price determined by reference to the market value of an ADS at the date of grant, and 6,060,696 options over ordinary shares with an exercise price equal to the nominal value of the ordinary shares (£0.001 per share). These grants have not been included in the figures above.

(x) Segmental Reporting

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision-maker in making decisions regarding resource allocation and assessing performance. The Group's chief operating decision maker (the "CODM"), its Chief Executive Officer, manages the Group's operations on an integrated basis for the purposes of allocating resources. When evaluating the Group's financial performance, the CODM reviews total revenues, total expenses and expenses by function and the CODM makes decisions using this information on a global basis. Accordingly, the Group has determined that it operates in one operating segment.

(x) Adopted IFRS Not Yet Applied

There are no standards that are not yet effective that would be expected to have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

(y) IFRS adopted in the year ended 31 December 2019

Impact of adopting IFRS 16

On 1 January 2019, the Group adopted a new standard, IFRS 16, Leases. The Group has adopted IFRS 16 using the modified retrospective approach from 1 January 2019, and has not restated comparatives for the 2018 reporting period, as permitted under the standard. The reclassifications and the adjustments arising from the new leasing rules have been recognised in the opening balance sheet on 1 January 2019.

The effect on the accumulated deficit, total stockholders' equity and net assets as at 1 January 2019 was $nil. The adoption of IFRS 16 has had a material impact on the Group's financial statements. At 1 January 2019 the Group recognised right-of-use (ROU) assets and liabilities for leases following the adoption date of $22.2 million and $26.9 million respectively and derecognised $4.7 million of other liabilities and prepayments that had been recognised under the principles of *IAS 17 Leases* previously.

On adoption of IFRS 16, the ROU assets and lease liabilities recognised by the Group were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as of 1 January 2019. The weighted average incremental borrowing rate applied to the lease liabilities on 1 January 2019 was 7.2%.

At each reporting date, the lease liabilities are increased by interest and reduced by repayments made under the lease agreements. The right-of-use asset is subsequently measured at cost less accumulated depreciation and impairment losses.

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

In applying IFRS 16 for the first time, the Group has used the following practical expedients and elections permitted by the standard:

- relying on previous assessments on whether leases are onerous as an alternative to performing an impairment review; there were no onerous contracts as at 1 January 2019
- accounting for operating leases with a remaining lease term of less than 12 months as at 1 January 2019 as short-term leases
- using hindsight in determining the lease term where the contract contains options to extend or terminate the lease
- relying on its assessment made applying IAS 17 and Interpretation 4 (*Determining whether an Arrangement contains a Lease*) for contracts entered into before the 1 January 2019.

2 REVENUE & SEGMENTAL REPORTING

Group

Revenue from contracts with customers arises from one customer, which is GSK, in one geographic location, which is the United Kingdom.

Revenue comprises the following categories:

For the year ended 31 December	2019	2018
	$'000	$'000
Development	1,122	20,391
Licenses	—	39,114
	1,122	**59,505**

The deferred revenue balance as of 1 January and 31 December 2018 and 2019 is as follows:

	2019	2018
	$'000	$'000
Deferred revenue at 1 January	—	30,090
Amounts invoiced in the year	3,217	30,077
Revenue in the year	(1,122)	(59,505)
Changes in variable consideration	—	(10,396)
Changes in the measure of progress	—	5,027
Foreign exchange arising on consolidation	33	4,707
Deferred revenue at 31 December	**2,128**	**—**

The amount of the transaction price received that is allocated to performance obligations that are unsatisfied or partially satisfied at 31 December 2019 was $2.1 million. The revenue allocated to the third target program will be recognised over an estimated period up to the end of 2020 as the development of products to the target progresses.

Geographic information

Noncurrent assets (excluding intangibles, financial instruments, and deferred tax) based on geographic location:

As of 31 December	2019 $'000	2018 $'000
United Kingdom	**26,979**	18,828
United States	**24,193**	17,290
	51,172	36,118

(1) Clinical materials of $2,503,000 and $3,953,000, included within non-current assets as of 31 December 2019 and 2018, respectively, are not included within the table above because they can easily be transferred between geographic locations.

(2) Right-of-use lease assets have been included within the above figures as of 31 December 2019 following the transition to IFRS 16.

3 OTHER INCOME

Group

For the year ended 31 December	2019 $'000	2018 $'000
U.K. research and development expenditure credit	**68**	639
Reimbursement of certain equity issuance costs	**906**	810
	974	1,449

4 EXPENSES AND AUDITOR'S REMUNERATION

Group

For the year ended 31 December	2019 $'000	2018 $'000
Operating loss is stated after charging/(crediting):		
Realized foreign exchange (gains) losses	**(952)**	3,953
Depreciation of owned property, plant and equipment (note 9)	**7,172**	7,188
Amortisation of intangibles (note 11)	**838**	622
Other expenses include amounts receivable by the Group's auditor and its associates in respect of:		
Audit of the Company's annual accounts	**597**	589
Audit of the subsidiaries' annual accounts	**146**	123
Other audit assurance fees	**292**	172
Tax fees	**—**	—
All other fees	**—**	10

5 STAFF NUMBERS AND COSTS

Group

The average number of persons employed by the Group during the period, analysed by category, was as follows:

For the year ended 31 December	2019	2018
Research & Development	**322**	320
Management & Administration	**88**	89
	410	409

The aggregate staff costs of these persons were as follows:

For the year ended 31 December	2019	2018
	$'000	$'000
Wages and salaries	**42,966**	42,709
Social security costs	**3,642**	3,774
Share based payment – fair value of employee services (note 25)	**8,331**	15,945
Pension costs – defined contribution (note 24)	**1,903**	1,848
	56,842	64,276

6 DIRECTORS' REMUNERATION

Group

For the year ended 31 December	2019	2018
	$'000	$'000
Directors' emoluments	**1,174**	983

Employer social security contributions on directors' emoluments were $122,000 *(2018: $119,000).*

Total Directors' pension contributions for the period were $nil *(2018: $nil).*

No retirement benefits are accruing to Directors (*2018: none*) under the Group's pension schemes. One director (*2018: none*) exercised share options in the parent company during the period.

For the year ended 31 December	2019	2018
	$'000	$'000
Highest paid Director		
Aggregate emoluments and benefits	**662**	853

(Excluding gains on exercise of share options)

The highest paid Director's pension contributions for the year ended 31 December 2019 were $nil *(2018: $nil)*. The highest paid Director exercised share options in the period *(2018: none exercised).* These exercises and further details of directors' remuneration are provided in the Directors' Remuneration Report.

7 FINANCE INCOME AND EXPENSE

Group

Finance income recognised in the income statement:

For the year ended 31 December	2019 $'000	2018 $'000
Net unrealized foreign exchange gains	**—**	—
Accretion of financial assets at fair value through OCI	**200**	—
Interest income on financial assets at fair value through OCI	**2,479**	2,422
Interest income on cash and cash equivalents	**293**	427
	2,972	2,849

Finance expense recognised in the income statement:

For the year ended 31 December	2019 $'000	2018 $'000
Net unrealized foreign exchange losses	**1,077**	7,748
Amortization of financial assets at fair value through OCI	**—**	244
Interest paid on lease liabilities	**1,822**	—
	2,899	7,992

8 TAXATION CREDIT

Group

Recognised in the income statement:

For the year ended 31 December	2019 $'000	2018 $'000
Current tax income:		
U.K. R&D tax credit	**18,538**	16,350
U.S. corporation tax	**(242)**	(497)
Adjustments in respect of prior periods	**45**	309
Total tax credit recognized in income statement	**18,341**	16,162

Reconciliation of Effective Tax Rate

The effective tax rate is lower (*2018: lower*) than the standard rate of corporation tax in the U.K. The differences are explained below:

For the year ended 31 December	**2019**	2018
	$'000	$'000
Loss before tax	**148,926**	107,717
Tax at the U.K. corporation tax rate of 19% (2018: 19.0%)	**28,296**	20,465
Non-taxable income and non-deductible expenses	**(499)**	1,029
Permanent differences on net investment in foreign operation	**(2,093)**	—
Deferred taxes not recognised	**(15,842)**	(16,634)
Difference in tax rates	**(1,551)**	(1,252)
Additional allowance in respect of enhanced R&D relief	**13,773**	12,330
Surrender of tax losses for R&D tax credit refund	**(5,783)**	(5,156)
R&D tax credits generated	**2,075**	4,814
Other	**(35)**	566
	18,341	16,162

As of 31 December 2019, there are accumulated tax losses for carry forward in the U.K. of approximately $249,800,000 (*2018: $175,600,000*), expenditure credit carryforwards of $700,000 and U.S. tax credit carryforwards of $5,700,000 *(2018: $4,200,000)*. Unsurrendered U.K. tax losses and tax credit carryforwards can be carried forward indefinitely to be offset against future taxable profits, however this is restricted to an annual £5 million allowance in each standalone company or group and above this allowance, there will be a 50% restriction in the profits that can be covered by losses brought forward. U.S. tax credit carryforwards can be carried forward for 20 years.

No deferred tax asset is recognised in respect of accumulated tax losses on the basis that suitable future trading profits are not sufficiently certain.

The effective U.K. corporate tax rate for the years ended 31 December 2019 and 2018 was 19%. Reductions to the U.K. corporation tax rate to 17% (effective from 1 April 2020) was substantively enacted on 6 September 2016.

The U.S. corporate tax rate for the years ended 31 December 2019 and 2018 was 21%.

9 PROPERTY, PLANT & EQUIPMENT

Group

	Computer Equipment	Office Equipment	Laboratory Equipment	Leasehold Improvements	Total
	$'000	$'000	$'000	$'000	$'000
Cost					
At 1 January 2018	2,706	858	18,745	27,834	50,143
Additions	313	21	3,571	5	3,910
Effect of foreign currency translation	(103)	(32)	(1,036)	(840)	(2,011)
At 31 December 2018	**2,916**	**847**	**21,280**	**26,999**	**52,042**
Additions	100	—	1,492	—	1,592
Transfers between classes	—	—	78	(78)	—
Effect of foreign currency translation	53	17	614	399	1,083
At 31 December 2019	**3,069**	**864**	**23,464**	**27,320**	**54,717**
Depreciation					
At 1 January 2018	**1,302**	**167**	**6,500**	**1,495**	**9,464**
Charge for period	783	172	3,940	2,293	7,188
Disposals	—	—	—	—	—
Effect of foreign currency translation	(67)	(13)	(533)	(115)	(728)
At 31 December 2018	**2,018**	**326**	**9,907**	**3,673**	**15,924**
Charge for period	602	164	4,161	2,245	7,172
Effect of foreign currency translation	44	10	398	101	553
At 31 December 2019	**2,664**	**500**	**14,466**	**6,019**	**23,649**
Carrying value					
At 1 January 2018	1,404	691	12,245	26,339	40,679
At 31 December 2018	898	521	11,373	23,326	36,118
At 31 December 2019	**405**	**364**	**8,998**	**21,301**	**31,068**

10 LEASES

Group

	2019
Lease cost:	**$'000**
Depreciation of right-of-use assets	2,864
Interest expense (included in Finance expense)	1,822
Short-term lease cost	319
	5,005

	2019
	$'000
Other information:	
Total cash outflow for leases	4,063
Weighted-average remaining lease term	7.3 years
Weighted-average discount rate	7.2%

Future minimum lease payments for property leases as of 31 December 2019 are presented below:

	Property leases
	$'000
2020	4,191
2021	4,234
2022	4,237
2023	4,004
2024	3,936
after 2024	12,748
Total Lease payments	**33,350**
Less Imputed Interest	(7,891)
Present value of lease liability	**25,459**

The accumulated depreciation on right-of-use assets as of 31 December 2019 was $2,864,000.

11 INTANGIBLES

Group

	Licensed technology	In-process R&D	Computer Software	Total
	$'000	$'000	$'000	$'000
Cost				
At 1 January 2018	**200**	**6,067**	**1,789**	**8,056**
Additions	10	146	788	944
Effect of foreign currency translation	(13)	—	(83)	(96)
At 31 December 2018	**197**	**6,213**	**2,494**	**8,904**
Additions	—	4,532	1,482	6,014
Effect of foreign currency translation	7	441	119	567
At 31 December 2019	**204**	**11,186**	**4,095**	**15,485**
Amortization				
At 1 January 2018	**36**	**—**	**616**	**652**
Charge for period	**25**	**—**	597	622
Effect of foreign currency translation	**(4)**	**—**	(52)	(56)
At 31 December 2018	**57**	**—**	**1,161**	**1,218**
Charge for period	136	—	702	838
Effect of foreign currency translation	4		42	46
At 31 December 2019	**197**	**—**	**1,905**	**2,102**
Carrying value				
At 1 January 2018	164	6,067	1,173	7,404
At 31 December 2018	140	6,213	1,333	7,686
At 31 December 2019	**7**	**11,186**	**2,190**	**13,383**

On 25 November 2015, the Group entered into a Research, Collaboration and License Agreement relating to gene editing and Human Leukocyte Antigen ("HLA") engineering technology with Universal Cells, Inc. ("Universal Cells"). The Group paid an upfront license and start-up fee of $2.5 million to Universal Cells in November 2015 and milestone payments of $0.2 million, $0.9 million and $3.0 million in the years ended 31 December 2018, 2017 and 2016, respectively, which are included in IPR&D in the table above. Details of further potential milestone payments can be found in Note 26.

On 14 May 2019, we entered into a collaboration agreement relating to the development of next-generation SPEAR T-cell products with Alpine. We paid an upfront exclusive license option fee of $2.0 million to Alpine in June 2019, which is included in IPR&D in the table above. Under the agreement, Adaptimmune will pay Alpine for ongoing research and development funding costs and development and commercialization milestone payments up to a maximum of $288 million may be payable if all possible targets are selected and milestones achieved. Alpine would also receive low single-digit royalties on worldwide net sales of applicable products.

On 26 August 2019, we entered into a collaboration and license agreement relating to the development of next-generation SPEAR T-cell products with Noile-Immune. An upfront exclusive license option fee of $2.5 million is payable to Noile-Immune in 2019, which is included in IPR&D in the table above. Under the agreement, development and commercialization milestone payments up to a maximum of $312 million may be payable if all possible targets are selected and milestones achieved. Noile-Immune would also receive mid-single-digit royalties on net sales of resulting products.

12 INVESTMENTS IN SUBSIDIARIES

Company

	$'000
Cost and carrying value	
At 1 January 2018	104,827
Capital contributions in respect of share-based payment transactions	13,235
At 31 December 2018	**118,062**
Capital contributions in respect of share-based payment transactions	6,503
At 31 December 2019	**124,565**

The Company has the following (direct or indirect) interest in subsidiary undertakings:

Name of Company	Country of Incorporation	Holding	Proportion Held	Nature of Business
Adaptimmune Limited	England and Wales	Ordinary shares of £0.001	100 %	Biotechnology Research & Development
Adaptimmune LLC	United States of America	Ordinary Shares of $1	100 %	Biotechnology Research & Development

The registered office of Adaptimmune Limited is 60 Jubilee Avenue, Milton Park, Abingdon, Oxfordshire, England, OX14 4RX. The registered office of Adaptimmune LLC is 351 Rouse Boulevard, The Navy Yard, Philadelphia PA 19112, United States.

13 FINANCIAL ASSETS AT AMORTISED COST

Company

As of 31 December	2019 $'000	2018 $'000
Loan receivables from group undertakings	318,056	219,056
Loss allowance for expected credit losses	(318,056)	—
Loan receivables from group undertakings recognised in the Company Statement of Financial Position	**—**	**219,056**

Loan receivables from group undertakings arise due to a five year U.S. dollar denominated unsecured loan, which accrues interest at a rate of 2.38% per annum.

A loss allowance of $318,056,000 has been recognised in the Company Statement of Financial Position in the year ended 31 December 2019 following a significant deterioration in the Company's subsidiary's (Adaptimmune Limited's) ability to repay any significant part of the loan. The remaining contractual term of the loan is until 31 December 2020, after which the loan may be renewed on an annual basis. It is Adaptimmune Therapeutics Plc's intention not to request repayment of the loan for the foreseeable future, and due to the ongoing working capital requirements of the Group, Adaptimmune Limited does not expect to repay the loan, or any material part thereof, in the foreseeable future.

14 RESTRICTED CASH

Group

As of 31 December 2019 and 2018, the Group had restricted cash of $4,496,000 and $4,097,000, respectively, relating to security deposits for letters of credit relating to leased properties.

15 OTHER CURRENT ASSETS

Group

As of 31 December	2019 $'000	2018 $'000
Prepayments	8,395	6,279
Clinical materials	1,459	1,087
Other current assets	1,810	1,944
	11,664	9,310

16 TRADE & OTHER RECEIVABLES

Group

As of 31 December	2019 $'000	2018 $'000
Trade receivables	—	192
	—	192

Company

As of 31 December	2019 $'000	2018 $'000
Amounts owed from group undertakings	**13,849**	8,692
	13,849	8,692

Amounts owed from group undertakings are trading balances, which are unsecured and have no fixed date of repayment.

17 FINANCIAL ASSETS AT FAIR VALUE THROUGH OCI

Group and Company

As of 31 December	2019 $'000	2018 $'000
Marketable securities denominated in U.S. dollars	**39,130**	136,755
	39,130	136,755

18 CASH AND CASH EQUIVALENTS

Group

As of 31 December	2019 $'000	2018 $'000
Cash and cash equivalents held in pounds sterling	**12,604**	27,914
Cash and cash equivalents held in U.S. dollars	**37,808**	40,465
	50,412	68,379

The Group's policy for determining cash and cash equivalents is to include all cash balances, short-term deposits and investments with original maturities of three months or less.

When the Group assesses its liquidity position it includes cash and cash equivalents as well as short-term investments.

19 CAPITAL AND RESERVES

Group and Company

Share capital

As of 31 December	2019 $'000	2018 $'000
Allotted, called up and fully paid 631,003,568 (As of 31 December 2018: 627,454,270) Ordinary shares of 0.1p each	**943**	939

Ordinary shares

Each holder of ordinary shares is entitled to one vote, on a show of hands and one vote per share on a poll, at general meetings of the Company. On the winding up of the Company, the assets of the Company available for distribution to holders remaining after payment of all other debts and liabilities of the Company shall be paid to the shareholders in proportion to the number of shares held by each of them. The payment of dividends by Adaptimmune Therapeutics plc is governed by U.K. law. As of 31 December 2019, Adaptimmune Therapeutics Plc and Adaptimmune Limited have accumulated net losses.

Effective from 2 May 2019, the Directors have the authority to allot new ordinary shares or to grant rights to subscribe for or to convert any security into ordinary shares in the Company up to a maximum aggregate nominal amount of £207,288.00. This authority runs for five years and will expire on 1 May 2024 (unless previously renewed, varied or revoked). Effective from 2 May 2019, the Directors also have the authority to allot ordinary shares for cash or to grant rights to subscribe for or to convert any security into ordinary shares in the Company without first offering them to existing shareholders in proportion to their existing holdings up to an aggregate maximum nominal amount of £157,500.00 This power will expire at the end of the Annual General Meeting of the Company to be held in 2021 (unless previously renewed, varied or revoked).

2020 Underwritten public offering

Details of the Company's public offering subsequent to December 31, 2019 are provided in Note 28.

2018 Registered direct offering

On 7 September 2018, the Company completed a registered direct offering of its American Depositary Shares ("ADSs") following its entry into a definitive agreement with Matrix Capital Management Company, LP, New Enterprise Associates 16, L.P., New Enterprise Associates 14, L.P. and Syncona Portfolio Limited. The Company sold 10,000,000 ADSs (representing 60,000,000 ordinary shares) at a price of $10.00 per ADS. The net proceeds were $99,653,000 after deducting offering expenses of $347,000.

Dividends

No dividends were paid or declared in the years ended 31 December 2019 and 2018.

Capital Management Policy

The Group manages the operating cash outflow through its budgeting process and looks to raise sufficient funds from revenue and equity to cover these outflows.

Nature and purpose of reserves

Exchange reserve

The exchange reserve comprises all foreign currency differences arising from the translation of the financial statements of foreign operations.

Fair value reserve

The fair value reserve comprises the cumulative net change in the fair value of financial assets at fair value through OCI until the assets are derecognised or impaired.

Other reserve

The other reserve has arisen as a result of the company reorganization described above.

20 NON-CURRENT TRADE AND OTHER PAYABLES

Group

As of 31 December	**31 December 2019**	31 December 2018
	$'000	$'000
Accruals	**598**	5,414
	598	5,414

21 CURRENT TRADE AND OTHER PAYABLES

Group

As of 31 December	**2019**	2018
	$'000	$'000
Trade payables	**6,414**	4,398
Other taxation and social security	**563**	509
Deferred income (Note 2)	**2,128**	—
Current lease liability	**2,493**	—
Accruals	**17,743**	19,529
	29,341	24,436

21 CURRENT TRADE AND OTHER PAYABLES (CONTINUED)

Company

As of 31 December	2019	2018
	$'000	$'000
Trade payables	**25**	33
Amounts owed to group undertakings	**187**	1,247
Accruals	**1,005**	680
	1,217	1,960

Amounts owed to group undertakings are unsecured, have no fixed date of repayment, and are interest free.

22 PROVISIONS

Group

	2019	2018
	$'000	**$'000**
At 1 January	—	—
Additional amounts provided in the year	5,000	—
At 31 December	**5,000**	**—**

On 16 June 2016, the Group entered into a supply agreement with ThermoFisher for the supply of the Dynabeads® CD3/CD28 technology. The Dynabeads® CD3/CD28 technology is designed to isolate, activate and expand human T-cells, and is being used in the manufacturing of the Group's affinity enhanced T-cell therapies. The supply agreement runs until 31 December 2025. Under the supply agreement the Group is required to purchase its requirements for CD3/CD28 magnetic bead product exclusively from ThermoFisher for a period of 5 years and there are also minimum purchasing obligations. $5.0 million of these purchase commitments have been recognised in Research and development expense in the year ended 31 December 2019. Management regularly updates the assessment of the utility of the Dynabeads and whether the unavoidable costs of meeting obligations for minimum purchase commitments exceed the economic benefits it expects to receive under the contract. In the year ended 31 December 2019, the Group considers that there is sufficient uncertainty surrounding the utility of the Dynabeads purchase commitment, which are dependent upon current study trajectories, the Group's clinical pipeline, manufacturing methods and undetermined future projects, to result in the $5.0 million purchase commitment being recognised as a provision in the year ended 31 December 2019.

23 FINANCIAL INSTRUMENTS

Group

Disclosure of financial assets measured at fair value on a recurring basis

Assets and liabilities measured at fair value on a recurring basis based on Level 1, Level 2, and Level 3 fair value measurement criteria as of 31 December 2019 are as follows:

		Fair Value Measurements Using		
	31 December 2019	Level 1	Level 2	Level 3
	$'000	$'000	$'000	$'000
Assets:				
Financial assets at fair value through OCI : Corporate debt securities	39,130	39,130	—	—

The Group estimates the fair value of financial assets at fair value through OCI with the aid of a third party valuation service, which uses actual trade and indicative prices sourced from third-party providers on a daily basis to estimate the fair value. If observed market prices are not available (for example securities with short maturities and infrequent secondary market trades), the securities are priced using a valuation model maximizing observable inputs, including market interest rates.

23 FINANCIAL INSTRUMENTS (CONTINUED)

Disclosure of fair values of financial assets and liabilities:

As of	31 December 2019 Carrying amount $'000	31 December 2019 Fair value $'000	31 December 2018 Carrying amount $'000	31 December 2018 Fair value $'000
Financial assets not measured at fair value:				
Receivables				
Trade receivables	—	—	192	192
Tax receivable	**19,284**	**19,284**	16,459	16,459
	19,284	**19,284**	16,651	16,651
Cash and cash equivalents	**50,412**	**50,412**	68,379	68,379

As of	31 December 2019 Carrying amount $'000	31 December 2019 Fair value $'000	31 December 2018 Carrying amount $'000	31 December 2018 Fair value $'000
Financial liabilities not measured at fair value:				
Trade payables	**6,414**	**6,414**	4,398	4,398
Other taxation and social security	**563**	**563**	509	509
Accruals	**17,743**	**17,743**	19,529	19,529
	24,720	**24,720**	24,436	24,436

For cash and cash equivalents, trade and other payables and trade and other receivables with a remaining life of less than one year, the nominal amount is deemed to reflect fair value.

Liquidity Risk

The Group's treasury policy gives guidance on how much investment should be held with differing counterparties. The cash utilisation is monitored to provide a lead time for raising further funding.

The following are the contractual maturities of financial liabilities, including estimated interest payments and excluding the effect of netting agreements:

As of	31 December 2019 Carrying amount $'000	Contractual cash flows $'000	1 year or less $'000
Financial liabilities at amortised cost			
Trade payables	**6,414**	**6,414**	**6,414**
Other taxation and social security	**563**	**563**	**563**
Accruals	**17,743**	**17,743**	**17,743**
	24,720	**24,720**	**24,720**

23 FINANCIAL INSTRUMENTS (CONTINUED)

As of	31 December 2018 Carrying amount $'000	Contractual cash flows $'000	1 year or less $'000
Financial liabilities at amortised cost			
Trade payables	4,398	4,398	4,398
Other taxation and social security	509	509	509
Accruals	19,529	19,529	19,529
	24,436	24,436	24,436

Foreign Exchange Risk

Our surplus cash and cash equivalents are invested in interest-bearing savings, money market funds, corporate debt securities and commercial paper from time to time. Our investments in corporate debt securities are subject to fixed interest rates. Our exposure to interest rate sensitivity is impacted by changes in the underlying U.K. and U.S. bank interest rates and the fair market value of our corporate debt securities will fall in value if market interest rates increase. We do not believe an immediate one percentage point change in interest rates would have a material effect on the fair market value of our portfolio, and therefore we do not expect our operating results or cash flows to be significantly affected by changes in market interest rates.

Financial assets and liabilities in foreign currencies are as follows:

As of 31 December	**2019 Carrying amount $'000**	2018 Carrying amount $'000
Financial assets:		
Cash and cash equivalents	**12,604**	27,914
Financial liabilities:		
Accruals	**8,093**	4,736
Trade payables	**709**	681

A 1% increase in exchange rates would reduce the carrying value of net financial assets and liabilities in foreign currencies at 31 December 2019 by $38,000 (2018: $225,000).

The results of operations and cash flows will be subject to fluctuations due to changes in foreign currency exchange rates, which could harm our business in the future. We seek to minimize this exposure by maintaining currency cash balances at levels appropriate to meet foreseeable expenses in U.S. dollars and pounds sterling. To date, we have not used forward exchange contracts or other currency hedging products to manage our exchange rate exposure, although we may do so in the future. The exchange rate as of 31 December 2018, the last business day of the reporting period, was £1.00 to $1.31.

Credit risk

Trade receivables were $nil and $192,000 as of 31 December 2019 and 2018, respectively. Trade receivables arise in relation to the GSK Collaboration and License Agreement. We have been transacting with GSK since 2014, during which time no impairment losses have been recognised. There was $nil past due at 31 December 2019.

Our cash and cash equivalents are held with multiple banks and we monitor the credit rating of those banks. Our investments in corporate debt securities and commercial paper are subject to credit risk. Our investment policy limits investments to certain types of instruments, such as money market instruments, corporate debt securities and commercial paper, places restrictions on maturities and concentration by type and issuer and specifies the minimum credit ratings for all investments and the average credit quality of the portfolio.

23 FINANCIAL INSTRUMENTS (CONTINUED)

Market Risk

Market risk is the risk that changes in market prices, such as in interest rates, commodity prices and foreign exchange rates will affect the Group's income or the value of its holdings of financial instruments. The Group's surplus cash and cash equivalents are invested in interest-bearing savings, money market funds, corporate debt securities and commercial paper from time to time. The Group's investments in corporate debt securities are subject to fixed interest rates. The Group's exposure to interest rate sensitivity is impacted by changes in the underlying U.K. and U.S. bank interest rates and the fair market value of our corporate debt securities will fall in value if market interest rates increase. We do not believe an immediate one percentage point change in interest rates would have a material effect on the fair market value of our portfolio, and therefore we do not expect our operating results or cash flows to be significantly affected by changes in market interest rates.

Financial assets and liabilities subject to variable interest rates are as follows:

As of 31 December	**2019 Carrying amount $'000**	2018 Carrying amount $'000
Cash and cash equivalents	50,412	68,379

An increase in Bank of England base rates by 0.5 percentage points would increase the net annual interest income applicable to the cash and cash equivalents as of 31 December 2019 by $252,000 (31 December 2018: $341,000).

The Group is exposed to commodity price risk as a result of its operations. However, given the size of the Group's operations, the costs of managing exposure to commodity price risk exceed any potential benefits. The Directors will revisit the appropriateness of this policy should the Group's operations change in size or nature. The Group has no exposure to equity securities price risk as it holds no listed or other equity investments.

24 EMPLOYEE BENEFITS

Group

The Group operates a defined contribution pension scheme for its executive directors and employees. The assets of the scheme are held separately from those of the company in an independently administered fund. The unpaid contributions outstanding as of 31 December 2019 were $161,000 (2018: $134,000). The pension cost charge for the year ended 31 December 2019 was $1,903,000 (2018: $1,848,000).

25 SHARE BASED PAYMENTS

Group

The Company grants options over ordinary shares in Adaptimmune Therapeutics plc under the following option plans: (i) the Adaptimmune Therapeutics plc 2015 Share Option Scheme (adopted on 16 March 2015); (ii) the Adaptimmune Therapeutics plc Company Share Option Plan (adopted on 16 March 2015) and (iii) the Adaptimmune Therapeutics plc Employee Share Option Scheme (adopted on 14 January 2016).

The Adaptimmune Therapeutics plc Company Share Option Plan is a tax efficient option scheme intended to comply with the requirements of Schedule 4 to the Income Tax (Earnings and Pensions) Act 2003 of the United Kingdom, which provides for the grant of company share option plan ("CSOP") options. Grants may not exceed the maximum value of £30,000 per participant for the shares under the option, which is a CSOP compliance requirement.

Generally, the vesting dates for the options granted under these plans up to 31 December 2019 are 25% on the first anniversary of the grant date and 75% in monthly instalments over the following three years. However, the options granted to non-executive directors under the Adaptimmune Therapeutics plc 2015 Share Option Scheme vest and become exercisable as follows:

Options granted to non-executive directors on 11 May 2015:	Immediately on grant date
Options granted to a non-executive director on 23 June 2016:	25% on the first anniversary of the grant date and 75% in monthly instalments over the following two years
Options granted to non-executive directors on 11 August 2016:	100% on the first anniversary of the grant date
Options granted to non-executive directors on 28 November 2016:	25% on the first anniversary of the grant date and 75% in monthly instalments over the following two years
Options granted to non-executive directors on 3 July 2017:	100% on the first anniversary of the grant date
Options granted to non-executive directors on 22 June 2018:	100% on the first anniversary of the grant date
Options granted to a non-executive director on 5 July 2018:	25% on the first anniversary of the grant date and 75% in monthly instalments over the following two years
Options granted to non-executive directors on 2 July 2019:	100% on the first anniversary of the grant date

Options granted under these plans are not subject to performance conditions. The contractual term of options granted under these plans is ten years.

The maximum aggregate number of options which may be granted under these plans and any incentive plans adopted by the Company cannot exceed a scheme limit that equates to 8% of the initial fully diluted share capital of the Company immediately following our IPO plus an automatic annual increase of an amount equivalent to 4% of the issued share capital on each 30 June (or such lower number as the Board, or an appropriate committee of the Board, may determine). The automatic increase is effective from 1 July 2016.

25 SHARE BASED PAYMENTS (CONTINUED)

Prior to 31 December 2014, the Group granted options to purchase ordinary shares in Adaptimmune Limited under three option schemes:

(i) The Adaptimmune Limited Share Option Scheme was adopted on 30 May 2008. Under this scheme Enterprise Management Incentive ("EMI") options (which are potentially tax-advantaged in the United Kingdom) have been granted (subject to the relevant conditions being met) to our employees who are eligible to receive EMI options under applicable U.K. tax law and unapproved options (which do not attract tax advantages) have been granted to our employees who are not eligible to receive EMI options, and to our directors and consultants. In May 2014, the Company no longer qualified for EMI status and since that date, no further EMI options were granted under this scheme; however, unapproved options have been under granted under this scheme since that date.

(ii) The Adaptimmune Limited 2014 Share Option Scheme was adopted on 11 April 2014. EMI options were granted (subject to the relevant conditions being met) under this scheme to our employees who are eligible to receive EMI options under applicable U.K. tax law. Unapproved options were granted to our employees who are not eligible to receive EMI options and to directors. In May 2014, the Company no longer qualified for EMI status and since that date, no further EMI options were granted under this scheme; however, unapproved options have been under granted under this scheme since that date.

(iii) The Adaptimmune Limited Company Share Option Plan was adopted on 16 December 2014. This scheme allowed the grant of options to our eligible employees prior to the corporate reorganization. This scheme is a tax efficient option scheme and options were granted on 19 December 2014 and on 31 December 2014 to our part-time and full-time employees.

As part of the corporate reorganization in connection with our IPO, the holders of options granted under these schemes over ordinary shares of Adaptimmune Limited were granted equivalent options on substantially the same terms over ordinary shares of Adaptimmune Therapeutics plc ("Replacement Options") in exchange for the release of these options. The Company does not intend to grant any further options under these schemes.

Generally, the vesting dates for the Replacement Options under the Adaptimmune Limited schemes are:

Options granted in 2009:	100% on the third anniversary of the grant date
Options granted in 2011, 2012, 2013 and April 2014:	25% on the first anniversary of the grant date and 75% in annual instalments over the following three years
Options granted in December 2014:	25% on the first anniversary of the grant date and 75% in monthly instalments over the following three years

The contractual life of options granted under these schemes is ten years.

25 SHARE BASED PAYMENTS (CONTINUED)

The number and weighted average exercise prices of share options (including grant in the year) are as follows:

	2019		2018	
For the year ended	Number	Weighted average exercise price	Number	Weighted average exercise price
Outstanding at start of year	**87,564,769**	**£ 0.60**	74,943,717	£ 0.58
Changes during the period:				
Granted	**23,699,793**	**£ 0.41**	20,771,970	£ 0.63
Forfeited	**(18,837,142)**	**£ 0.08**	(5,334,936)	£ 0.42
Exercised	**(3,549,298)**	**£ 0.60**	(2,815,982)	£ 0.80
Outstanding at the end of the period	**88,878,122**	**£ 0.57**	87,564,769	£ 0.60
Exercisable at the end of the period	**51,953,196**	**£ 0.63**	47,678,481	£ 0.55

The following table shows information about share options and options which have a nominal exercise price (similar to restricted stock units (RSUs)) granted:

	2019	2018
Number of options over ordinary shares granted	15,679,383	20,771,970
Weighted average fair value of ordinary shares options	$ 0.48	$ 0.87
Number of RSU-style options granted	8,020,410	8,603,676
Weighted average fair value of RSU-style options granted	$ 0.86	$ 1.37

There were 3,549,298 and 5,334,936 share options exercised in the years ended 31 December 2019 and 2018, respectively. In the years ended 31 December 2019 and 2018 the total intrinsic value of stock options exercised was $1,977,000 and $6,727,000, respectively and the cash received from exercise of stock options was $366,000 and $3,037,000, respectively. The Group recognizes tax benefits arising on the exercise of stock options regardless of whether the benefit reduces current taxes. The tax benefit arising on the exercise of stock options was $1,488,000 and $1,325,000 and for the years ended 31 December 2019 and 2018, respectively. The Group satisfies the exercise of stock options through newly issued shares.

For options outstanding at 31 December 2019, the range of exercise prices and weighted average remaining contractual life are as follows:

	Outstanding			Exercisable	
Exercise Price	Total Share Options	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Total Share Options	Weighted-Average Exercise Price
£0	12,231,786	8.7	£ 0.00	816,075	£ —
£0 – £0.25	5,751,306	3.1	£ 0.14	4,920,306	£ 0.12
£0.26 – £0.50	15,451,247	5.4	£ 0.42	12,908,168	£ 0.41
£0.51 – £0.75	33,649,220	7.5	£ 0.63	16,744,149	£ 0.61
£0.76 – £1.00	17,894,778	6.5	£ 0.93	13,651,919	£ 0.92
£1.01 – £1.50	2,283,984	7.5	£ 1.19	1,448,622	£ 1.13
£1.51 – £2.00	1,615,801	7.8	£ 1.70	1,463,957	£ 1.70
Total	**88,878,122**	**6.8**	£ **0.57**	**51,953,196**	£ **0.63**

The total charge for the year relating to share based payment plans was $8,331,000 (2018: $15,945,000), all of which related to equity-settled share based payment transactions.

25 SHARE BASED PAYMENTS (CONTINUED)

The following table summarizes information about stock options granted based on the market value at grant date which were outstanding as of 31 December 2019:

	Options	Weighted average exercise price per option	Average remaining contractual term (years)	Aggregate intrinsic value (thousands)
Outstanding at 1 January 2019	79,465,407	£ 0.66		
Changes during the period:				
Granted	15,679,383	£ 0.62		
Exercised	(2,406,298)	£ 0.12		
Forfeited	(16,092,106)	£ 0.70		
Outstanding at 31 December 2019	**76,646,386**	**£ 0.66**	**6.5**	**£ 139**
Exercisable at 31 December 2019	51,137,121	£ 0.64	5.6	£ 139

The following table summarizes information about options which have a nominal exercise price (similar to restricted stock units (RSUs)) which were outstanding as of 31 December 2019:

	Options	Average remaining contractual term (years)	Aggregate intrinsic value (thousands)
Outstanding at 1 January 2019	8,099,362		
Changes during the period:			
Granted	8,020,410		
Exercised	(1,143,000)		
Forfeited	(2,745,036)		
Outstanding at 31 December 2019	**12,231,736**	**8.7**	**£ 1,851**
Exercisable at 31 December 2019	816,075	8.0	£ 124

Options were valued using the Black-Scholes option-pricing model. No performance conditions were included in the fair value calculations. The assumptions used in the fair value calculation for options granted in the year are as follows:

For the year ended	**2019**	2018
Expected volatility	5 years	5 years
Expected life (years)	69 - 73%	66 - 69% %
Risk free rate	0.22 - 0.90%	0.90 - 1.15% %
Expected dividend yield	0%	0 %

The expected term of the option is based on management judgment. Management uses historical data to determine the volatility of the Group's share price. The risk free rate is based on the Bank of England's estimates of the gilt yield curve as of the respective grant dates.

The Group has analysed historic forfeiture rates for share options and determined approximately 14% of outstanding options granted are expected to be forfeited.

26 CAPITAL COMMITMENTS AND CONTINGENCIES

Group

As of 31 December	2019	2018
	$'000	$'000
Future capital expenditure contracted but not provided for	**414**	963

Other commitments

Lease commitments

Details of the Group's lease commitments as at 31 December 2019 are disclosed in Note 10.

Commitments for clinical materials, clinical trials and contract manufacturing

As of 31 December 2019, the Group had non-cancellable commitments for purchase of clinical materials, contract manufacturing, maintenance, and committed funding under the MD Anderson strategic alliance of up to $13,657,000, of which the Group expects to pay $6,552,000 within one year and $7,105,000 in one to three years. The amount and timing of these payments vary depending on the rate of progress of development. Future clinical trial expenses have not been included within the purchase commitments because they are contingent on enrolment in clinical trials and the activities required to be performed by the clinical sites. The Group's subcontracted costs for clinical trials and contract manufacturing were $32,788,000 and $41,580,000 for the years ended 31 December 2019 and 2018, respectively.

Bellicum Pharmaceuticals Inc., Co-Development and Co-Commercialization Agreement

On 16 December 2016, the Group entered into a Co-Development and Co-Commercialization Agreement with Bellicum Pharmaceuticals, Inc. ("Bellicum") in order to facilitate a staged collaboration to evaluate, develop and commercialize next generation T-cell therapies.

Under the agreement, the Group will evaluate Bellicum's GoTCR technology (inducible MyD88/CD40 co-stimulation, or iMC) with the Group's SPEAR T-cells for the potential to create enhanced T-cell therapeutics. Depending on results of the initial preclinical proof-of-concept phase, the agreement may progress to a two-target co-development and co-commercialization phase. To the extent necessary, and in furtherance of the parties' proof-of-concept and co-development efforts, the parties granted each other a royalty-free, non-transferable, non-exclusive license covering their respective technologies for purposes of facilitating such proof-of-concept and co-development efforts. In addition, as to covered therapies developed under the agreement, the parties granted each other a reciprocal exclusive license for the commercialization of such therapies. During the proof of concept phase, each party bears its own costs and there are no payments made between the Group and Bellicum. Any research and development costs incurred by the Group with third parties have been accounted for in accordance with the Group's accounting policy for research and development expenses.

With respect to any joint commercialization of a covered therapy, the parties agreed to negotiate in good faith the commercially reasonable terms of a co-commercialization agreement. The parties also agreed that any such agreement shall provide for, among other things, equal sharing of the costs of any such joint commercialization and the calculation of profit shares as set forth in the agreement.

The agreement will expire on a country-by-country basis once the parties cease commercialization of the T-cell therapies covered by the agreement, unless earlier terminated by either party for material breach, non-performance or cessation of development, bankruptcy/insolvency, or failure to progress to co-development phase.

26 CAPITAL COMMITMENTS AND CONTINGENCIES (CONTINUED)

MD Anderson Strategic Alliance

On 26 September 2016, the Group announced that it had entered into a multi-year strategic alliance with The University of Texas MD Anderson Cancer Center ("MD Anderson") designed to expedite the development of T-cell therapies for multiple types of cancer. The Group and MD Anderson are collaborating on a number of studies including clinical and preclinical development of the Group's SPEAR T-cell therapies targeting NY-ESO, MAGE-A10 and MAGE-A4 and will collaborate on future clinical stage first and second generation SPEAR T-cell therapies across a number of cancers.

Under the terms of the agreement, the Group committed at least $19,644,000 to fund studies. Payment of this funding is contingent on mutual agreement to study orders in order for any study to be included under the alliance and the performance of set milestones by MD Anderson. The Group made an upfront payment of $3,412,000 to MD Anderson in the year ended 31 December 2017 and milestone payments of $2,325,000 in the year ended 31 December 2018. The Group is obligated to make further payments to MD Anderson as certain milestones are achieved.

The agreement may be terminated by either party for material breach by the other party. Individual studies may be terminated for, amongst other things, material breach, health and safety concerns or where the institutional review board, the review board at the clinical site with oversight of the clinical study, requests termination of any study. Where any legal or regulatory authorization is finally withdrawn or terminated, the relevant study will also terminate automatically.

Universal Cells Research, Collaboration and License Agreement

On 25 November 2015, the Group entered into a Research, Collaboration and License Agreement relating to gene editing and Human Leukocyte Antigen ("HLA") engineering technology with Universal Cells, Inc. ("Universal Cells"). The Group paid an upfront license and start-up fee of $2.5 million to Universal Cells in November 2015, a milestone payment of $3.0 million in February 2016 and further milestone payments of $0.2 million and $0.9 million in the years ended 31 December 2018 and 2017, respectively. The agreement was amended and re-stated as at 13 January 2020, primarily to reflect changes to the development plan agreed between the parties. Further milestone payments of up to $38.4 million are payable if certain development and product milestones are achieved. Universal Cells would also receive a profit-share payment for the first product, and royalties on sales of other products utilizing its technology.

Noile-Immune Collaboration Agreement

On 26 August 2019, the Group entered into a collaboration and license agreement relating to the development of next-generation SPEAR T-cell products with Noile-Immune Biotech Inc. ("Noile-Immune"). An upfront exclusive license option fee of $2.5 million was paid to Noile-Immune in 2019. Under the agreement, development and commercialization milestone payments up to a maximum of $312 million may be payable if all possible targets are selected and milestones achieved. Noile-Immune would also receive mid-single-digit royalties on net sales of resulting products.

Alpine Collaboration Agreement

On 14 May 2019, we entered into a Collaboration Agreement relating to the development of next-generation SPEAR T-cell products with Alpine Immune Sciences Inc. ("Alpine"). The Group paid an upfront exclusive license option fee of $2.0 million to Alpine in June 2019. Under the agreement, Adaptimmune will pay Alpine for ongoing research and development funding costs and development and commercialization milestone payments up to a maximum of $288 million may be payable if all possible targets are selected and milestones achieved. Alpine would also receive low single-digit royalties on worldwide net sales of applicable products.

26 CAPITAL COMMITMENTS AND CONTINGENCIES (CONTINUED)

ThermoFisher License Agreement

In 2012, the Group entered into a series of license and sub-license agreements with Life Technologies Corporation, part of ThermoFisher Scientific, Inc. ("ThermoFisher") that provide the Group with a field-based exclusive license under certain intellectual property rights owned or controlled by ThermoFisher. The Group paid upfront license fees of $1.0 million relating to the license and sublicense agreements and has an obligation to pay minimum annual royalties (in the tens of thousands of U.S. dollars prior to licensed product approval and thereafter at a level of 50% of running royalties in the previous year), milestone payments and a low single-digit running royalty payable on the net selling price of each licensed product.

In 2016, the Group entered into a supply agreement with ThermoFisher for the supply of the Dynabeads® CD3/CD28 technology. The Dynabeads® CD3/CD28 technology is designed to isolate, activate and expand human T-cells, and is being used in the manufacturing of the Group's affinity enhanced T-cell therapies. The supply agreement runs until 31 December 2025. Under the supply agreement the Group is required to purchase its requirements for CD3/CD28 magnetic bead product from ThermoFisher for a period of 5 years and there are also minimum purchasing obligations. $5.0 million of these purchase commitments have been recognised in Research & development expenses in the year ended 31 December 2019. $2.5 million of the purchase commitments are payable in 2020 and $2.5 million are payable in 2021. ThermoFisher has the right to terminate the supply agreement for material breach or insolvency.

Commitments under leases

Information about the Group's lease arrangements is disclosed in Note 10.

27 RELATED PARTIES

Group

Remuneration of Key Management Personnel

The remuneration of the Directors and Executive Officers (excluding non-executive directors), who are the key management personnel of the Group, is set out below in aggregate for each of the categories specified in IAS 24, 'Related Party Disclosures'.

For the year ended 31 December	**2019**	2018
	$'000	$'000
Short-term employee benefits	**3,558**	4,150
Share-based payments	**1,510**	5,673
	5,068	9,823

Transactions with subsidiary companies are not disclosed from a Group perspective.

28 EVENTS AFTER THE REPORTING PERIOD

Group

On 13 January 2020, the Group entered into a co-development and co-commercialization agreement with Astellas Pharma, Inc. (the "Astellas Collaboration Agreement"). The Group received an upfront payment of $50.0 million in January 2020 under the agreement and is entitled to receive research funding of up to $7.5 million per year. Additional milestones are possible under the agreement, but these are dependent on the success of the development and commercialization of research and products.

On 24 January 2020, the Group closed an underwritten public offering of 21,000,000 American Depository Shares (ADSs) which, together with the full exercise by the underwriters on February 7, 2020 of their option to purchase an additional 3,150,000 ADSs, generated net proceeds of approximately $89.8 million.

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