Press release

Oxford Biomedica plc
Preliminary results for the year ended 31 December 2021

Saving Lives

Oxford, UK – 20 April 2022: Oxford Biomedica plc (LSE: OXB), ("Oxford Biomedica" or "the Group"), a leading cell and gene therapy group, today announces its preliminary results for the year ended 31 December 2021.

Dr. Roch Doliveux, Chair and Interim Chief Executive Officer of Oxford Biomedica, said:

"I am delighted with our performance in 2021 which was a true testament to the hard work of all our employees. 2021 financial performance was exceptional due to large-scale manufacture of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine, and we have successfully manufactured over 100 million doses since the partnership began. During the year we also built on our existing partnerships, including with Boehringer Ingelheim, as well as signed two new partnerships with innovative biotech companies, Immatics and Arcellx.

2022 will be another important year as we execute on our strategy to become a global viral vector leader, providing life-changing therapies and vaccines to patients. With the outsourced vector manufacturing supply market growing rapidly, we see significant potential to build upon our success with lentiviral vectors and expand the scope of our innovative process development and manufacturing to all classes of viral vectors.

Our recently launched Boston, US-based Adeno-Associated Virus (AAV) manufacturing and innovation business, brings a fully established and operating 'Plug & Play' platform, four patent families, and the full breadth of AAV capabilities and capacity into Oxford Biomedica. This lays the foundation to increase our presence in the strategically important US market and build our global footprint.

I would like to sincerely thank our employees, partners and shareholders for their continued support."

FINANCIAL HIGHLIGHTS

Selected highlights are as follows:

- Total revenues increased by 63% over 2020 to £142.8 million (2020: £87.7 million).
- Revenues from bioprocessing and commercial development continued its upward trend, growing 87% due to large scale commercial manufacture of the Oxford AstraZeneca COVID-19 vaccine.
- Revenues from milestones, licences and royalties, which included recognition of the £4.0 million license fee from Boehringer Ingelheim, decreased by 25% to £14.4 million. In 2020 a license fee from Juno Therapeutics/Bristol Myers Squibb of £7.8 million ($10 million) was recognised.
- Operating EBITDA[1] and operating profits improved by £28.5 million and £26.5 million respectively, with the Group generating an Operating EBITDA[1] profit of £35.9 million and an operating profit of £20.8 million.
- The Platform division made an Operating EBITDA[1] profit of £45.3 million (2020: £13.9 million profit) and an operating profit of £31.4 million (2020: £2.0 million profit), whilst the Product division made an Operating EBITDA[1] loss of £9.4 million (2020: £6.6 million loss), and an operating loss of £10.6 million (2020: £7.7 million loss).

- Cash generated from operations of £24.5 million in 2021 (2020: £3.9 million used in operations) increased as a result of vaccine manufacture for AstraZeneca, offset by further operational investments required.

- Gross proceeds of £50.0 million were raised through a placing with Serum Life Sciences Ltd in September 2021 to develop the fallow area of the Oxbox manufacturing facility.

- Cash at 31 December 2021 was £108.9 million and £144 million at 31 March 2022.

1. Operating EBITDA (Earnings Before Interest, Tax, Depreciation, Amortisation, revaluation of investments and assets at fair value through profit & loss, and Share Based Payments) is a non-GAAP measure often used as a surrogate for operational cash flow as it excludes from operating profit or loss all non-cash items, including the charge for share options. However, deferred bonus share option charges are not added back to operating profits in the determination of Operating EBITDA as they may be paid in cash upon the instruction of the Remuneration Committee. A reconciliation to GAAP measures is provided on page 18.

OPERATIONAL HIGHLIGHTS

COVID-19 Vaccine and Agreement with AstraZeneca

- Continued large-scale commercial manufacture of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine at the Group's Oxbox facility, running three manufacturing suites at 1000L scale to maximise production of vaccine

- Cumulative revenues from AstraZeneca by the end of 2021 were in excess of £100 million, contributing to significant growth in Group Operating EBITDA in 2021

Novartis Partnership

- In December, Novartis and Oxford Biomedica extended their commercial supply agreement for the manufacture of lentiviral vectors for several Novartis CAR-T products to the end of 2028

- Global roll out of Kymriah® in both paediatric and young adult relapsed or refractory B-cell acute lymphoblastic leukaemia (r/r ALL) and relapsed or refractory diffuse large B-cell lymphoma (r/r DLBCL) indications continued to expand with more than 365 qualified treatment centres in 30 countries having coverage for at least one indication

Boehringer Ingelheim

- In April, Oxford Biomedica announced that it had entered into a new three-year development and supply agreement with Boehringer Ingelheim for the manufacture and supply of various types of viral vectors, demonstrating the versatility of the Group's platform

- In October, the Group announced that Boehringer Ingelheim had exercised its option to license Oxford Biomedica's lentiviral vector technology to manufacture, register and commercialise BI 3720931 as a long-lasting therapeutic option for patients with cystic fibrosis

Other Partnership News and Strategic Updates

- Oxford Biomedica continues to actively progress its exciting collaborations with Juno Therapeutics Inc. (a wholly owned subsidiary of Bristol Myers Squibb Inc.) and Beam Therapeutics

- In March, Oxford Biomedica announced that Sanofi had given notice of their intent to terminate their collaboration and license agreement for the process development and manufacturing of lentiviral vectors to treat haemophilia. Oxford Biomedica expects a negligible impact on revenue over the coming 18-month period

- In November, OXB signed a new agreement with Immatics, a leading company developing T-cell-redirecting cancer immunotherapies

- In December, Oxford Biomedica announced a new license and supply agreement and a three-year clinical supply agreement with leading next-generation CAR-T developer Arcellx, and is currently working on their lead CAR-T programme

- In May, Orchard Therapeutics announced it would be returning the rights to its OTL-101 programme to the academic originators of that programme

- Post-period end, Oxford Biomedica announced a license and supply agreement with Cabaletta Bio for their DSG3-CAART programme (now in Phase I) (January 2022)
- Post-period end, Oxford Biomedica announced that Sio Gene Therapies had given notice of their intention to return the rights for AXO-Lenti-PD; Oxford Biomedica plans to out-license the programme in due course (February 2022)
- During 2021, the Group concluded an internal review of its proprietary pipeline and, following this, identified a set of select assets for development

Investment from Serum Life Sciences Ltd

- In September, Serum Life Sciences Ltd (a subsidiary of Serum Institute of India) made an investment of £50 million in the Company in return for 3.9% of the share capital at the time
- The proceeds of the transaction will fund the development of the fallow area at Oxbox into a flexible advanced manufacturing space for a variety of viral vector based products, including cell and gene therapy products, vaccines and other advanced therapeutics at 2,000L scale

Transaction with Homology Medicines, Inc and creation of Oxford Biomedica Solutions (post-period end)

- In January 2022, Oxford Biomedica announced that it had agreed with Homology Medicines to establish Oxford Biomedica Solutions, a high-performing, full scope AAV manufacturing and innovation business near Boston, US
- The transaction completed on 10 March 2022 and is immediately accretive to the Group's revenue growth
- The transaction has expanded the Group's suite of viral vector capabilities into the large and growing AAV segment
- Oxford Biomedica, Inc acquired an 80% ownership interest in Oxford Biomedica Solutions for $130 million (£97 million) cash consideration, with a further $50 million (£37 million) capital injection into Oxford Biomedica Solutions to fund growth

Expansion of Capacity

- In January 2021, Oxford Biomedica hosted the Prime Minister, the Rt. Hon Boris Johnson MP, to formally open the Oxbox manufacturing facility following MHRA approval of four manufacturing suites
- Planning permission for redevelopment of the Windrush Innovation Centre was granted in June 2021, and is planned to provide next generation laboratory facilities; project anticipated to commence in second half of 2022

Corporate Governance and Organisational Progress

- Post-period end, Dr. Roch Doliveux assumed the role of Interim CEO of the Company, simultaneous with the announcement of John Dawson's decision to retire as CEO after more than 13 years of service. A process to appoint a new CEO is underway
- The Company welcomed three new Board members in 2021; Professor Dame Kay Davies, a world-renowned geneticist and Dr. Lee's Professor of Anatomy Emeritus at Oxford University, Dr. Michael Hayden, with decades of industry defining contributions and achievements, and Ms Catherine Moukheibir, with extensive international experience in finance, capital markets and life sciences
- During the period two long-standing Board members also stepped down; Martin Diggle, Partner at Vulpes Investment Management, stepped down in February and Dr. Andrew Heath retired from the Board at the AGM in May
- In April 2022, the Company welcomed Namrata P Patel to the Board as an Independent Non-Executive Director. Ms Patel brings extensive international experience in manufacturing and product supply, and ESG

Analyst briefing
Management will be hosting a briefing for analysts via conference call and webcast at 13:00 BST (8:00 ET) today, 20 April 2022.

A live webcast of the presentation will be available via this link.

If you would like to dial-in to the call and ask a question during the live Q&A, please email Oxfordbiomedica@consilium-comms.com

Notes
Unless otherwise defined, terms used in this announcement shall have the same meaning as those used in the Annual report and accounts.

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About Oxford Biomedica
Oxford Biomedica (LSE:OXB) is an innovative leading viral vector specialist focused on delivering life changing therapies to patients.

Oxford Biomedica plc and its subsidiaries (the Group) work across key viral vector delivery systems including those based on lentivirus, adeno-associated virus (AAV) and adenovirus, providing innovative solutions to cell and gene therapy biotechnology and biopharma companies for their process development, analytical development and manufacturing needs. Oxford Biomedica has built a sector leading lentiviral vector delivery system, LentiVector® platform, which the Group leverages to develop product candidates in-house, before seeking partners to take the products into clinical trials.

Oxford Biomedica is based across several locations and headquartered in Oxfordshire, UK. In early 2022, the Group established Oxford Biomedica Solutions, a new US based subsidiary AAV manufacturing and innovation business, based near Boston, US.

Oxford Biomedica employs more than 940 people. Further information is available at www.oxb.com.

CHAIR'S STATEMENT

Saving lives through innovative cell and gene therapy services

Introduction
2021 was an outstanding year for Oxford Biomedica as we continued to succeed in our mission to deliver life-changing therapies and vaccines to patients. Our business model is built upon using science to save lives and the innovative work we are doing is enabling our customers, the biotech and biopharma industry, to deliver life-saving therapies to reach more patients.

We continued the large-scale manufacture of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine, successfully manufacturing more than 100 million doses of the vaccine and demonstrating Oxford Biomedica's world class facilities, expertise and strength of our team. We expanded upon other existing partnerships, including with Boehringer Ingelheim for the manufacture and supply of various types of viral vectors, whilst also signing two new partnerships.

In line with our aim of becoming a global viral vector leader, not only did we invest in the expansion of our world class facilities in the UK, but we also announced a transformational deal with Homology Medicines which was completed in early 2022. This transaction has enabled us to broaden our vector offering into adeno-associated virus (AAV) whilst enhancing our process development and manufacturing capabilities and expanding our US presence.

Innovation in our platform remains integral to the future of our business. We conducted an internal review of our additional assets in development in 2021 and as of the end of the year we had several assets in our gene therapeutics pipeline.

We have entered 2022 in a robust financial position, providing us with a stable foundation for future growth. In September, we received an investment by Serum Life Sciences Ltd of £50 million, which enables us to further expand the capacity of our world class facilities as we continue anticipating growing demand for our capabilities in viral vector manufacturing.

Our Culture
Our purpose is at the heart of our culture. During 2021, our culture became even stronger despite being tested by the COVID-19 pandemic. The Group's approach to employee wellbeing continued to focus on mental wellbeing and, in particular, resilience. The pandemic has emphasised that whilst we cannot control the external environment around us, we can support employees and provide them with the tools to manage their personal response to these external factors.

As a Group, employee engagement remains a key priority. We are committed to making sure employees are regularly asked for their views and suggestions on a variety of issues, through multiple channels and forums. In 2021, we launched our first ever company-wide employee engagement survey. The results were positive, and the Group's sustainable engagement score, a key overall engagement indicator, was above those of other benchmarked groups. We will continue to take action to further improve our performance in this area.

Our Strategy
The Group's goal is focused on becoming an innovative global viral vector leader that provides solutions to cell and gene therapy companies.

In September, having conducted a strategic review and following our success in both lentiviral vectors and our performance above other CDMOs with the adenovirus-based Oxford AstraZeneca COVID-19 vaccine, we announced that we would expand the scope of our innovative process development and manufacturing to all classes of viral vectors. The global outsourced vector manufacturing supply market for lentiviral vector, AAV and adenoviral vector is growing rapidly and is expected to reach c.$2.8bn by 2026, and we see significant potential to build upon our success with lentiviral vectors and capitalise on the opportunities available.

In line with this vector agnostic strategy, our recent transaction with Homology Medicines has enabled us to further broaden our leading viral vector capabilities into the large and fast-growing AAV segment. We believe that the transaction will accelerate our strategy of becoming an innovative global viral vector

leader, providing solutions to cell and gene therapy biotech and biopharma companies for their process development and manufacturing needs across key viral vectors.

Our focus is now on the delivery of this strategy. Process development is one of the most critical success factors to ensure the efficacy, safety, affordability and wider applicability of cell and gene therapies and therefore an increased focus on this is a natural evolution for the company.

Over the long-term, our process development has the potential to help build a proprietary pipeline of assets for which we will seek external funding and continue to progress in-house before seeking partners to take the products into clinical trials.

Governance

As a FTSE 250 company, best practice corporate governance is paramount to Oxford Biomedica and the Board plays a key role in promoting the long-term success of the Company, ensuring that we maintain sustainable practices. Alongside this, the Group is firmly committed to strengthening and diversifying the Board. During 2021 we made significant strides enhancing diversity, moving from one to three women on the Board, of whom two chair committees that advise the Board.

In March, Professor Dame Kay Davies, a world-renowned geneticist and Dr. Lee's Professor of Anatomy Emeritus at Oxford University, was appointed to the Board as an Independent Non-Executive Director. Dame Kay Davies is the Chair of our newly formed Science and Technology Advisory Committee, an advisory committee to the Board on science and technology matters which reaffirms our commitment to innovation. The Board was further bolstered in July when we appointed Dr. Michael Hayden as a Non-Executive Director. Dr. Hayden has decades of industry defining scientific contributions and achievements, including developing the world's first approved gene therapy treatment. In December, the Board was pleased to appoint Catherine Moukheibir to the Board as an Independent Non-Executive Director. Ms. Moukheibir has extensive international experience in finance, capital markets and life sciences and currently serves on the board of six other companies. Post period end, we added a fourth female Non-executive Director, with Namrata P Patel joining the Board in April 2022. Ms Patel brings extensive international experience in manufacturing and product supply and Environmental Social and Governance (ESG) matters.

In addition to chairing the Board, I assumed the role of Interim CEO of the Company in January 2022, after John Dawson announced his decision to retire after more than 13 years of service, which was closely followed by the announcement of the transformational deal with Homology Medicines. On behalf of the Board, I would like to express my sincere appreciation for John Dawson's leadership and achievements as CEO during his lengthy tenure. His successful career and pivotal role in the manufacture of the life-saving adenovirus-based Oxford AstraZeneca COVID-19 vaccine were recognised at the end of 2021 by a much-deserved Commander of the Order of the British Empire (CBE) award for services to UK Life Science. Under his leadership, Oxford Biomedica has grown into a global industry leader in viral vectors and its market cap has multiplied over 20 times and delivered multiple high-value partnerships alongside successfully manufacturing the adenovirus-based Oxford AstraZeneca COVID-19 vaccine at unprecedented speed. We have commenced a formal process to appoint a successor who will lead the Group through its next phase of growth.

During the period two long-standing Board members also stepped down after many years of service. Martin Diggle, a Partner at Vulpes Investment Management stepped down as a Non-Executive Director in February after nearly nine years of service and Dr. Andrew Heath, Non-Executive Director, retired from the Board at the AGM in May, after more than eleven years of service to the Group. We thank them both for their contribution.

In August 2021, Matthew Treagus, Chief Information Officer (CIO) joined the Senior Executive Team as a permanent member, having worked with Oxford Biomedica on the development and implementation of its digital strategy since 2019. This announcement reflects the Group's commitment to driving its digitalisation agenda. Dave Backer joined the Senior Executive Team in September 2021 as Chief Commercial Officer (CCO), broadening the Group's business development expertise as it expands beyond lentiviral manufacturing into other vectors, including adeno and AAV.

The Group remains committed to its role as a responsible business and continues work on implementing its ESG, which is focused on five pillars: People; Community; Environment; Innovation

and Supply Chain. Throughout 2021, the Group made progress towards strengthening its involvement in the local community adding a further 16 apprentices across the organisation and raising £17,000 for our chosen charity SeeSaw. We are pleased with the progress we are making towards reducing our environmental footprint and work alongside our team of 40 environmental representatives to identify areas where further efficiencies can be made. The Group endeavours to gain an environmental certification as part of its sustainability plan.

Summary

The Board expects 2022 to be a year of growth for the Group, excluding the one-time impact of the Oxford AstraZeneca COVID-19 vaccine. We continue to build our global footprint as a vector-agnostic provider of life-changing therapies to a group of high calibre customers globally. In particular, the Group is expected to increase its presence in the strategically important US market, following the transformational transaction with Homology Medicines, which has culminated in the establishment of Oxford Biomedica Solutions. This transaction has provided Oxford Biomedica with entry into the high value AAV market, which is expected to grow at a CAGR of 25% over the next five years.

Innovation in cell and gene therapy remains key to our strategy, where our platforms and capabilities are sought after by global customers. Underpinned by our purpose of saving lives, the innovative work Oxford Biomedica is doing will allow our customers, the biotech and biopharma industry to deliver the breakthroughs of cell and gene therapies which have the amazing potential to cure patients.

Dr. Roch Doliveux
Chair

2021 Performance Review

Introduction

2021 was a year of significant progress for Oxford Biomedica, as reflected by the strong financial performance during the year, largely driven by the Group's significant efforts to produce COVID vaccines for AstraZeneca. Over the course of the period, Oxford Biomedica has continued to deliver on its strategy of becoming a global viral vector leader and further demonstrated its world-leading expertise in cell and gene therapy. Now, more than ever, the Group is in a strong position to enable its customers to bring their new life-changing therapies to patients.

COVID-19 vaccine and agreement with AstraZeneca

Throughout the year, Oxford Biomedica continued the large-scale commercial manufacture of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine at the Group's Oxbox facility. Manufacturing was at full pace in three manufacturing suites running at 1000L scale to maximise production of the vaccine. In May 2021, the Group announced that AstraZeneca had committed to an increase in the number of batches required from Oxford Biomedica in the second half of 2021. As a result of this, cumulative revenues from AstraZeneca by the end of 2021 were in excess of £100 million, contributing to significant growth in Group's revenues and Operating EBITDA in the year ending 2021.

Oxford Biomedica has a three-year master supply and development agreement with AstraZeneca for large-scale commercial manufacture of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine, announced in September 2020. The Group has successfully manufactured over 100 million doses of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine, working alongside AstraZeneca and other manufacturing organisations internationally to enable the supply of COVID-19 vaccines on a global scale. The worldwide network has now been responsible for the manufacture of over 2.9 billion doses of COVID-19 vaccines to more than 180 countries, supporting significant unmet demand for vaccines in high, middle and low income countries.

In June 2020, the Group announced a five-year collaboration agreement with Vaccines Manufacturing and Innovation Centre (VMIC) to enable the rapid manufacture of viral vector-based vaccines. As part of the agreement VMIC provided equipment for 1000L scale production in two GMP manufacturing suites in Oxbox to further scale up production of AZD1222. The Group purchased this equipment to allow for longer term use, which consisted of a capital outlay of £3.8 million paid in the first half of 2021. The collaboration was terminated by mutual consent in April 2022 following the sale of VMIC to Catalent.

Novartis

Throughout 2021, the Group continued to deliver under its partnership with Novartis for the commercial and clinical supply of lentiviral vectors for Kymriah® (tisagenlecleucel, formerly CTL019) and Novartis' broader CAR-T portfolio. The Novartis collaboration was extended in December 2021, building on the strategic partnership the Group has had with them since 2014. Under the terms of the updated agreement, Oxford Biomedica regained the rights to its LentiVector® platform relating to three CAR-T targets, including CD19 targeted therapies. In addition, Novartis has been granted additional flexibility in the ordering of GMP batches across Oxford Biomedica's multiple GMP facilities but will no longer have a minimum order commitment. Oxford Biomedica continues to be Novartis' sole global supplier of lentiviral vector for Kymriah®.

Global roll out of Kymriah® in both paediatric and young adult relapsed or refractory B-cell acute lymphoblastic leukaemia (r/r ALL) and relapsed or refractory diffuse large B-cell lymphoma (r/r DLBCL) indications continued to expand with more than 365 qualified treatment centres in 30 countries having coverage for at least one indication. Kymriah® continued to see double-digit growth showing 24% growth in the 2021 financial year, over the 2020 financial year, reporting sales in 2021 of $587 million.

Indication expansion for Kymriah® continues to progress well, and in October, Novartis filed regulatory submissions for Kymriah® in relapsed or refractory follicular lymphoma (r/r FL) in the US and EU (with a positive CHMP opinion received in March 2022).

The Group is currently working with Novartis on four partner programmes, in addition to Kymriah®.

Boehringer Ingelheim
During 2021, Oxford Biomedica's partnership with Boehringer Ingelheim continued to progress through development. In April, Oxford Biomedica announced that it had entered into a new three-year development and supply agreement with Boehringer Ingelheim for the manufacture and supply of various types of viral vectors, demonstrating the versatility of the Group's platform.

In October, the Group announced that Boehringer Ingelheim had exercised its option to license Oxford Biomedica's lentiviral vector technology to manufacture, register and commercialise BI 3720931, a lentiviral vector based gene therapy for the treatment of cystic fibrosis (in an inhaled formulation). The agreement builds on the existing partnership established between the two companies in 2018 with the UK Cystic Fibrosis Gene Therapy Consortium and IP Group to develop BI 3720931 as a long-lasting therapeutic option for patients with cystic fibrosis. Boehringer Ingelheim is accelerating the start of First-in-Human studies as much as possible in close collaboration with patients, investigators and regulators.

Under the terms of the agreement originally announced in 2018, the Group received and recognised a £3.5 million cash option exercise fee and is entitled to receive a further £27.5 million in development, regulatory and sales milestones, in addition to tiered low single digit royalties on net sales.

Immatics
In November, OXB signed a new license and supply agreement with Immatics, a Tübingen, Germany-based clinical-stage biopharmaceutical company active in the discovery and development of T cell-redirecting cancer immunotherapies. The agreement grants Immatics a non-exclusive licence to Oxford Biomedica's LentiVector® platform for its application in select TCR-T programmes and puts in place a three-year Clinical Supply Agreement.

Arcellx
In December, OXB signed a license and supply agreement with Arcellx, a clinical-stage cell therapy company developing treatments for patients with cancer and other incurable diseases. The agreement grants Arcellx a non-exclusive licence to Oxford Biomedica's LentiVector® platform for its application in select Arcellx CAR-T programmes, and also puts in place a three-year clinical supply agreement, for which the Group will receive payments related to the development and manufacturing of lentiviral vectors for use in clinical trials. In addition, the Group will receive payments for the manufacture and supply of lentiviral vectors for commercial use. The Group is currently working on two programmes with Arcellx, including Arcellx's lead CAR-T programme CAR-T ddBCMA.

Further partner updates
The Group's collaborations with Juno Therapeutics Inc. (a wholly owned subsidiary of Bristol Myers Squibb Inc.) and Beam Therapeutics continue to progress through development. The combined revenues from these two partnerships are expected to continue to provide a meaningful contribution to commercial development revenues.

Sanofi
In March, the Group announced that Sanofi had given notice of their intent to terminate the 2018 collaboration and license agreement for the process development and manufacturing of lentiviral vectors to treat haemophilia. The Group expects that the impact on revenue will be negligible over the coming 18 month period, and continues to believe that a lentivector-based approach to treat haemophilia is a very attractive opportunity.

Orchard Therapeutics
The MPS-IIIA (OLT-201) partner programme with Orchard is currently being evaluated in an ongoing proof-of-concept clinical trial. Clinical data, including early clinical outcomes of cognitive function, is expected by year end 2022.

In May, Orchard Therapeutics announced that it would be returning the rights to their OTL-101 programme for ADA-SCID to the academic originators of the programme, following its decision to deprioritise that programme in a prior portfolio review.

While this news means that Oxford Biomedica will no longer be working with Orchard on the OTL-101 programme, the Group awaits further information on whether it can be of assistance to the academic partners at UCLA and UCL.

Cabaletta Bio
Post period end in January 2022, Oxford Biomedica announced a license and supply agreement with Philadelphia, US-based Cabaletta Bio for their lead product candidate, DSG3-CAART. DSG3-CAART is being evaluated in the DesCAARTes™ Phase 1 clinical trial as a potential treatment for patients with Mucosal Pemphigus Vulgaris (mPV), and is designed to selectively target and kill the B cells that produce DSG3 antibodies while preserving the healthy B cells critical to immune function. No DLTs were observed in the first four cohorts of the trial with the 28-day safety data for the fifth cohort expected to be announced in mid-2022.

Sio Gene Therapies (formerly Axovant Gene Therapies)
Post-period end in February 2022, Oxford Biomedica announced that Sio Gene Therapies had given notice that they intend to return the global rights for AXO-Lenti-PD which they had originally out-licensed in 2018 and to terminate their programme in Parkinson's Disease. The Group expects that the impact on revenue will be negligible through at least 2022 and 2023. Oxford Biomedica plans to out-license the programme in due course to a suitable partner with resource capabilities and funding to further develop this asset.

Innovation and platform development
Innovation and the development of the platform are core to Oxford Biomedica's goal of industrialising viral vector manufacturing not just with lentiviral vectors but across all viral vector classes. By industrialising viral vector production thereby reducing the cost and improving quality attributes through innovation, the Group will broaden the therapeutic indications that are amenable to treatment with cell and gene therapy. It is expected that the reduction in cost will help drive adoption by payors into indications where there are far larger numbers of patients, by bringing down the overall cost per patient treated.

Multiple elements of IP and innovation are relevant across all viral vector classes. Development of technologies such as TRiPSystem™, SecNuc™, LentiStable™ and U1 and U2, along with the corresponding IP, continue to move ahead. A number of the Group's platform technologies developed for lentiviral vectors such as TRiPSystem™, SecNuc™ and perfusion technology, can also be used commercially for AAV. The Group also continues to utilise automation and the use of robotics, artificial intelligence and machine learning to further drive productivity improvements.

Process C, which incorporates enhancers (such as U1, U2) and perfusion coupled with improvements in downstream processing into the manufacturing process is now proven at 200L scale in GMP, with general roll out expected in the first half of 2022, thereby enabling process D utilising LentiStable™ technology.

The Group has additionally started development work in the area of in vivo CAR-T, which the Group believes would offer greater patient access and superior efficacy to existing treatment options.

R&D collaborations
During the year, the Group continued to progress R&D to develop next generation manufacturing processes for viral vectors. In October 2021, the Group entered into a research collaboration with Circularis Biotechnologies to identify novel tissue specific promoters for incorporation into the Group's in vivo lentiviral gene therapy products.

Post period end, in January 2022, the Group announced a new R&D partnership with Virica Biotech, a leading developer of solutions for scaling of viral medicines, to improve the yield and production efficiency of the Group's lentiviral vector manufacturing platform using Virica's Viral Sensitizers (VSEs™).

OXB also entered into a research collaboration with Isolere Bio, a bioprocessing company that provides a platform technology for tackling downstream inefficiencies in the manufacturing of biologics. By bringing together both companies' technologies, the research collaboration aims to

develop an easily scalable purification process for lentiviral vectors with significantly improved yields and vector quality.

Finally, in March 2022, the Group announced a new agreement with BiologIC Technologies, the biocomputer computer, to collaborate on a novel biocomputer system for viral vector development.

These R&D collaborations with companies developing innovative solutions for viral vector manufacturing, represent the Group's ongoing commitment to continuously innovate and improve Oxford Biomedica's LentiVector® platform, with the goal of including these technologies in the Group's gene therapy products and making these proprietary technologies available to its customers in the future.

Proprietary product pipeline
The Group concluded an internal review of its proprietary products pipeline in 2021, and following this, has a select set of products being developed for which external funding will be sought. This includes the gene therapy programme for Parkinson's disease, AXO-Lenti-PD, which is available for out-licensing.

The most advanced programme, OXB-302, which targets 5T4, is currently being investigated in Acute Myeloid Leukaemia with preparation for clinical trial initiation ongoing. 5T4 is an oncofoetal antigen specifically expressed on the cell surface of most cancers including AML. The restricted expression profile of 5T4 on normal tissues combined with its broad expression on tumour cells (including cancer stem cells) makes 5T4 an attractive target.

OXB-302 is a second-generation CAR-T product generated via an optimised lentiviral vector, manufactured utilising the latest generation of vector processing, and a T-cell transduction protocol and expression process that generates more potent cells than more conventional CAR-T production processes. OXB-302 has demonstrated potent in vitro and in vivo activity against a panel of human solid and liquid tumour cell lines and the Group believes it has high commercial potential for the treatment of multiple liquid and solid tumours.

Work has also been initiated on assets for liver indications including OXB-401, where preclinical work began in 2021. The potential use of lentiviral vectors in liver gene therapy is recognised as highly promising due to the potential for one-off therapies giving long term benefits.

The Group has chosen to deprioritise OXB-203, OXB-204 and OXB-103 at this time.

Facilities and capacity expansion
In January 2021, the Group was delighted to host the Prime Minister, the Rt. Hon Boris Johnson MP, to formally open the Oxbox manufacturing facility following MHRA approval of four manufacturing suites during 2020, three of which were dedicated to running at 1000L scale for adenovirus-based Oxford AstraZeneca COVID-19 vaccine production with the fourth suite dedicated to 200L lentiviral vector manufacturing. The first fill / finish suite has been qualified and regulatory submission to the MHRA has been made, with approval and start of commercial use expected in the second half of 2022.

Design work for the next phase of Oxbox development, including fit out of the fallow area, is progressing. This will provide additional flexible manufacturing capacity for a variety of viral vector based products, including cell and gene therapy products, vaccines and other advanced therapeutics at 2,000L scale, and will be funded by the proceeds of the £50 million equity investment received from Serum Life Sciences Ltd.

In June 2021, the Group was granted planning permission for redevelopment of the Windrush Innovation Centre (WIC) site. The new WIC building will provide next generation laboratory facilities, with this project anticipated to commence in the second half of 2022.

Conversion of office space into GMP grade laboratories at Windrush Court was completed in the last quarter of 2021 and the laboratories are now in place to meet expected near-term demand in commercial development and analytics.

Investment from Serum Life Sciences Ltd
In September, Oxford Biomedica announced that Serum Life Sciences Ltd (a subsidiary of Serum Institute of India) agreed to invest just over £50 million in the Group in return for new ordinary shares representing 3.9% of the share capital at the time.

The proceeds of the investment by Serum Life Sciences are being used to fund the development of the fallow area at Oxbox, the Group's 84,000 sq. ft manufacturing facility based in Oxford, UK, and will allow Oxford Biomedica to continue to expand the capacity of the Group's world class facilities in anticipation of growing demand for the Group's capabilities.

Oxford Biomedica has recently signed a memorandum of understanding with Serum Life Sciences Ltd, granting them the right of first refusal to the exclusive use of one of two 2,000L bioreactor facilities that Oxford Biomedica is building in the expansion of its Oxbox manufacturing facility. Exclusive use will require Serum Life Sciences to commit to a minimum contract value per year for up to ten years.

Transaction with Homology Medicines, Inc and creation of Oxford Biomedica Solutions
In January 2022, Oxford Biomedica announced that it had entered into an agreement with Homology Medicines to establish Oxford Biomedica Solutions, a high-performing, full scope AAV manufacturing and innovation business in Boston, US. The transaction completed on 10th March 2022 and is immediately accretive to the Group's revenue growth.

The newly formed company will offer a scalable, high quality manufacturing platform to global customers, including Homology Medicines, through a multi-year supply agreement as a preferred customer with minimum contracted revenue of approximately $25 million ($19 million) from Homology Medicines for the first twelve months.

Under the agreement, Oxford Biomedica US, Inc. acquired an 80% ownership interest in the newly formed AAV focused manufacturing and innovation business for $130 million (£97 million) cash consideration, and a $50 million (£37 million) capital injection into Oxford Biomedica Solutions to fund growth. Oxford Biomedica Solutions now includes approximately 125 technical operations employees based at a state of the art AAV manufacturing facility with approximately 25,000 sq. ft of GMP space.

Tim Kelly, former Chief Operating Officer of Homology Medicines joined Oxford Biomedica Solutions as Chief Executive Officer and Chair of its Board of Directors.

Upon completion, the transaction immediately expanded Oxford Biomedica's suite of viral vector capabilities into the large and growing AAV segment, as well as giving Oxford Biomedica a US presence within close proximity to current and potential biotech and pharma customers.

Outlook
The Group targets growth in manufacturing and commercial development revenues from both new and existing lentiviral vector customers as well as new AAV revenues from US-based Oxford Biomedica Solutions. Currently, total revenues in 2022 are expected to be lower than in 2021 (but significantly ahead of 2020) due to a pause in vaccine manufacturing activity while discussions with AstraZeneca continue on a potential extension of the supply agreement.

Oxford Biomedica Solutions will contribute minimum revenues of c.US$25 million for the first twelve months (post deal completion in March 2022) from its multi-year supply agreement with Homology Medicines. With Oxford Biomedica Solutions full scope AAV manufacturing and innovation business currently operating at approximately one third of its overall capacity, the Group is committed to securing new AAV customer partnerships within the first 12 months of operation.

The Group expects to be loss-making on an Operating EBITDA level in 2022, after consolidation of Oxford Biomedica Solutions. This is driven by one-off costs for integrating the new business, as well as R&D costs, which are targeted to be higher than in 2021 as the Group invests in innovation.

Capital expenditure is targeted to be higher than 2021. However the Group intends to implement a cautious strategy when planning significant new projects.

The Group’s growing customer base and new base in the US puts it in an ideal position to maximise growth and achieve its goal of becoming an innovative global viral vector leader.

FINANCIAL REVIEW

Exceptional results

In 2021 the Group performed well from an operational perspective, manufacturing the adenovirus-based Oxford AstraZeneca COVID-19 vaccine in three of its manufacturing suites across the whole year (excluding maintenance periods) in order to meet its customer obligations. As a result, batch volumes were up 210% from the prior year, and this resulted in exceptional revenue growth of 63% in 2021. Bioprocessing and commercial development activities continued as normal, albeit with some continued adjustments in terms of social distancing, mask wearing and employees working from home where possible due to the COVID-19 pandemic.

2021 was a very successful year for the Group in terms of revenue generation. In terms of customer agreements, OXB signed new license and supply agreements with Arcellx, Cabaletta Bio and Immatics. These partnerships with leaders in the CAR-T, cancer and autoimmune disease fields builds on the longstanding partnerships with Novartis and Juno Therapeutics/Bristol Myers Squibb, as well as the more recently announced partnership with Beam Therapeutics.

In April 2021, OXB also signed a new three-year development and supply agreement with Boehringer Ingelheim for the manufacture and supply of various types of viral vectors to support Boehringer Ingelheim's ongoing development programmes, including potential future programmes.

In December 2021, OXB extended the terms of its commercial supply agreement with Novartis to the end of 2028. The Group also regained the exclusive rights to its LentiVector® platform with regards to three CAR-T targets, including CD19 targeted therapies. This now allows the Group to work with pharmaceutical and biotech partners other than Novartis in these areas. In exchange for the return of these exclusive rights, Novartis has been granted additional flexibility in the ordering of GMP batches and will no longer have a minimum order commitment. OXB continues to work on multiple CAR-T programs with Novartis, including Kymriah®, from which the Group earns manufacturing revenues, process development fees and royalties on net sales.

In March 2021, Sanofi gave notice of their intention to terminate the collaboration and license agreement originally signed in 2018 for the process development and manufacturing of lentiviral vectors to treat haemophilia. The collaboration ended amicably and the Group remains open to working with Sanofi again in the future should an opportunity arise.

In January 2022, the Group was informed that Sio Gene Therapies intends to return the global rights for AXO-Lenti-PD, and that it would cease work on this gene therapy programme in Parkinson's Disease due to a constraint on its resource requirements. All rights will be returned to Oxford Biomedica at no cost to the Group. The Group plans to out-license the programme again in due course to a suitable partner with resource capabilities and funding to further develop this asset.

In the first half of 2022, OXB's 18-month supply agreement (under a three-year master supply and development agreement) for manufacture of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine will end. Discussions are ongoing with AstraZeneca on potential extension of this supply agreement while AstraZeneca completes its supply chain planning. The Group announced the existing three-year master supply and development agreement with AstraZeneca in September 2020 and since then has successfully manufactured over 100 million doses of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine. We remain committed to resuming vaccine manufacture and supporting AstraZeneca to enable the supply of COVID-19 vaccines on a global scale, and will update the market when further information is available.

In March 2022, the Group acquired an 80% ownership interest in a newly formed AAV focused manufacturing and innovation business, Oxford Biomedica Solutions, for $180 million (£134 million), with Homology Medicines Inc as a 20% owner. As part of the financing arrangements, the Group raised gross proceeds of £80 million through a placing of shares, and secured a short term loan facility of $85 million (£64 million) which is repayable 12 months after completion of the acquisition. Oxford Biomedica Solutions is expected to generate a minimum first 12 months contracted revenues of approximately US$25 million from Homology under a three-year manufacturing and supply agreement.

In September 2021, the Group also raised £50 million of new equity, through a strategic investment by Serum Life Sciences Ltd, a subsidiary company of Serum Institute India. These funds will be used to develop the fallow area at its Oxbox manufacturing facility into a flexible advanced manufacturing space, including the validation of several independent cGMP suites to exploit new opportunities in the cell and gene therapy market.

Overview

The Group saw a 63% increase in revenues which was driven by the volume of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine. This was offset by a decrease in commercial development revenues from existing customers AstraZeneca, Novartis and Orchard as activities transitioned to clinical and commercial batch manufacture. Revenues from license fees, milestones and royalties, which included recognition of the £4.0 million license fee from Boehringer Ingelheim, decreased by 25%.

Operating costs, including Cost of Sales, grew by 31%, and by 32% when non-cash items[2] are excluded. Manpower, raw material and facility costs have increased due to the cost of manufacturing the adenovirus-based Oxford AstraZeneca COVID-19 vaccine at full capacity throughout the year, as well as the full year effect of the Group's investments in the employees required to maintain operations at this level. Headcount rose from 673 at the end December 2020 to 815 at the end of 2021.

The Group made an Operating EBITDA[1] profit of £35.9 million, an improvement of £28.5 million from the prior year. Once non-cash items[2] are added back, the Group made an Operating profit of £20.8 million, an improvement of £26.5 million on the prior year.

1 Operating EBITDA (Earnings Before Interest, Tax, Depreciation, Amortisation, revaluation of investments and assets at fair value through profit and loss, and Share Based Payments) is a non-GAAP measure often used as a surrogate for operational cash flow as it excludes from operating profit or loss all non-cash items, including the charge for share options. However, deferred bonus share option charges are not added back to operating profits in the determination of Operating EBITDA as they may be paid in cash upon the instruction of the Remuneration Committee. A reconciliation to GAAP measures is provided on page 18.
2 Non-cash items include depreciation, amortisation, revaluation of investments, fair value adjustments of assets held at fair value through profit and loss and the share based payment charge. A reconciliation to GAAP measures is provided on page 18.

Key Financial and Non-Financial Performance Indicators

The Group evaluates its performance by making use of alternative performance measures as part of its Key Financial Performance Indicators (refer to the table below). The Group believes that these Non-GAAP measures, together with the relevant GAAP measures, provide a comprehensive, accurate reflection of the Group's performance over time. The Board has taken the decision that the Key Financial Performance Indicators against which the business will be assessed are Revenue, Operating EBITDA and Operating profit/(loss). The figures presented within this section for prior years are those reported in the Annual reports and accounts for those years and have not been restated where a change in accounting standards may have required this (e.g. revenue under IFRS 15 during 2018 to 2021 but IAS 18 during 2015 to 2017).

£m	2021	2020	2019	2018	2017	2016	2015
Revenue							
Bioprocessing/commercial development	**128.4**	68.5	47.3	40.5	31.8	22.6	11.3
Licences, milestones and royalties	**14.4**	19.2	16.8	26.3	5.8	5.2	4.6
	142.8	87.7	64.1	66.8	37.6	27.8	15.9
Operations							
Operating EBITDA[1]	**35.9**	7.3	(5.2)	13.4	(1.9)	(7.1)	(12.1)
Operating profit/(loss)	**20.8**	(5.7)	(14.5)	13.9	(5.7)	(11.3)	(14.1)
Cash flow							
Cash generated from/(used in) operations	**24.5**	(3.9)	(6.6)	9.2	(1.5)	(5.9)	(14.9)
Capex[2]	**9.5**	13.4	25.8	10.1	2.0	6.4	16.6
Cash inflow/(burn)[3]	**16.0**	(7.8)	(26.3)	(1.9)	(9.8)	(11.5)	(29.8)
Financing							
Cash	**108.9**	**46.7**	16.2	32.2	14.3	15.3	9.4
Loan	**-**	**-**	-	41.2	36.9	34.4	27.3
Non-Financial Key Indicators							
Headcount							
Year-end	**815**	**673**	554	432	321	256	231
Average	**759**	**609**	500	377	295	247	196

1 Operating EBITDA (Earnings Before Interest, Tax, Depreciation, Amortisation, revaluation of investments and assets at fair value through profit and loss, and Share Based Payments) is a non-GAAP measure often used as a surrogate for operational cash flow as it excludes from operating profit or loss all non-cash items, including the charge for share based payments. However, deferred bonus share option charges are not added back to operating profits in the determination of Operating EBITDA as they may be paid in cash upon the instruction of the Remuneration Committee. A reconciliation to GAAP measures is provided on page 18.

2 This is Purchases of property, plant and equipment as per the cash flow statement which excludes additions to Right-of-use assets. A reconciliation to GAAP measures is provided on page 20.

3 Cash inflow/(burn) is net cash generated from operations plus net interest paid plus capital expenditure. A reconciliation to GAAP measures is provided on page 20.

Revenue

Revenue increased by 63% to £142.8 million (2020 £87.7 million) due largely to the volume of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine batches manufactured for AstraZeneca. Revenue generated from bioprocessing/commercial development increased by 87% to £128.4 million (from £68.5 million in 2020). The main contributor to growth in 2021 has been the revenues generated from increased bioprocessing batches produced for AstraZeneca as part of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine manufacturing efforts.

Revenues from license fees, milestones and royalties of £14.4 million (2020: £19.2 million), which included recognition of the £4.0 million license fee from Boehringer Ingelheim, decreased by 25%. In 2020 a license fee from Juno Therapeutics/Bristol Myers Squibb of £7.8 million ($10 million) was recognised.

Due to the signature of a number of license, development and supply agreements during the year, the Group's customer base has continued to diversify. However, the largest portion of its revenues in 2021 came from the manufacture of the Oxford AstraZeneca COVID-19 vaccine under the development and supply agreement.

£m	2021	2020	2019	2018	2017	2016	2015
Revenue	**142.8**	**87.7**	64.1	66.8	37.6	27.8	15.9

Operating EBITDA

£m	2021	2020	2019	2018	2017	2016	2015
Revenue	**142.8**	87.7	64.1	66.8	37.6	27.8	15.9
Other income	**0.9**	0.8	0.9	1.1	1.8	3.0	2.9
Total expenses	**(107.8)**	(81.2)	(70.2)	(54.5)	(41.3)	(37.9)	(30.9)
Operating EBITDA[1]	**35.9**	7.3	(5.2)	13.4	(1.9)	(7.1)	(12.1)
Non cash items[2]	**(15.1)**	(13.0)	(9.3)	0.5	(3.8)	(4.2)	(2.0)
Operating profit/(loss)	**20.8**	(5.7)	(14.5)	13.9	(5.7)	(11.3)	(14.1)

1 Operating EBITDA (Earnings Before Interest, Tax, Depreciation, Amortisation, revaluation of investments and assets at fair value through profit and loss, and Share Based Payments) is a non-GAAP measure often used as a surrogate for operational cash flow as it excludes from operating profit or loss all non-cash items, including the charge for share based payments. However, deferred bonus share option charges are not added back to operating profits in the determination of Operating EBITDA as they may be paid in cash upon the instruction of the Remuneration Committee. A reconciliation to GAAP measures is provided on page 17.
2 Non-cash items include depreciation, amortisation, revaluation of investments, fair value adjustments of available-for-sale assets and the share based payment charge. A reconciliation to GAAP measures is provided on page 17.

Revenue increased by 63% in 2021 whilst the Group's cost base grew by 32% to £107.8 million due to an increased investment in raw materials for batches of vaccine produced, as well the full year effect of the Group's investments in people, equipment and operations required for the manufacturing of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine. The Operating EBITDA profit of £35.9 million is £28.5 million higher than the £7.3 million profit generated in 2020 as a result of the large increase in revenues when compared to the prior year.

Total Expenses

In order to provide the users of the accounts with a more detailed explanation of the reasons for the year-on-year movements of the Group's operational expenses included within Operating EBITDA, the Group has added together research and development, bioprocessing and administrative costs and has removed depreciation, amortisation and the share option charge as these are non-cash items which do not form part of the Operating EBITDA alternative performance measure. As Operating profit/(loss) is assessed separately as a key financial performance measure, the year-on-year movement in these non-cash items is then individually analysed and explained specifically in the Operating and Net profit/(loss) section. Expense items included within Total Expenses are then categorised according to their relevant nature with the year-on-year movement explained in the second table below.

£m	2021	2020	2019	2018	2017	2016	2015
Research and development[1]	**40.2**	29.7	22.6	18.0	21.6	24.3	20.3
Bioprocessing costs	**7.2**	10.7	7.4	1.2	-	-	-
Administrative expenses	**15.1**	11.3	11.9	7.4	7.3	6.0	6.7
Operating expenses	**62.5**	51.7	41.9	26.6	28.9	30.3	27.0
Depreciation	**(12.4)**	(9.8)	(5.8)	(4.3)	(4.1)	(3.3)	(1.3)
Amortisation	**-**	-	-	-	(1.2)	(0.3)	(0.4)
Share option charge	**(2.5)**	(2.4)	(1.6)	(1.1)	(0.7)	(0.6)	(0.2)
Adjusted Operating Expenses[2]	**47.6**	39.5	34.5	21.2	22.9	26.1	25.1
Cost of sales	**60.2**	41.7	35.7	33.3	18.4	11.8	5.8
Total Expenses[3]	**107.8**	81.2	70.2	54.5	41.3	37.9	30.9

1 Includes the RDEC Tax Credit
2 Research, development, bioprocessing and administrative expenses excluding depreciation, amortisation and the share option charge.
3 Cost of goods plus research, development, bioprocessing and administrative expenses excluding depreciation, amortisation and the share option charge.

£m	2021	2020	2019	2018	2017	2016	2015
Raw materials, consumables and other external bioprocessing costs	**34.2**	22.0	22.8	18.3	13.2	9.3	6.1
Manpower-related	**55.0**	45.3	35.2	26.7	19.3	17.4	13.6
External R&D expenditure	**2.5**	1.4	1.4	1.9	1.7	2.8	3
Other costs	**21.2**	17.1	12.0	7.6	7.1	8.4	8.2
RDEC tax credit	**(5.1)**	(4.6)	(1.2)	-	-	-	-
Total expenses	**107.8**	81.2	70.2	54.5	41.3	37.9	30.9

— Raw materials, consumables and other external bioprocessing costs have increased substantially due to increased raw material cost as a result of the large volumes of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine batches produced.

— The increase in manpower-related costs is due to the increase in the average headcount from 609 in 2020 to 759 in 2021. Additional investments were made in staff required for vaccine manufacturing, as well as some required investment in back-office staff.

— External R&D expenditure increased to normal levels as compared to 2020, as activities continued throughout 2021, with limited activities having taken place in the first half of 2020.

— Other costs were higher as a result of increased operational and facility costs incurred due to the continuous running of the Oxbox manufacturing facility during the year, as well as the additional laboratory space put in place at Windrush Court. Other items included due diligence fees incurred in establishment of an 80% ownership interest in Oxford Biomedica Solutions, offset by an insurance payment received with regards to a previous customer claim, and

— The RDEC credit has increased to £5.1 million (2020: £4.6 million) due to an increase in eligible research and development expenditure, mainly increases in employee cost, raw materials, consumables and qualifying external research and development expenditure.

Operating and Net profit/(loss)

£m	2021	2020	2019	2018	2017	2016	2015
Operating EBITDA	**35.9**	7.3	(5.2)	13.4	(1.9)	(7.1)	(12.1)
Depreciation, amortisation and share option charge	**(14.9)**	(12.2)	(7.4)	(5.5)	(6.1)	(4.2)	(2.0)
Change in fair value of assets at fair value through profit and loss	**(0.2)**	(0.8)	(1.9)	6.0	2.3	-	-
Operating profit/(loss)	**20.8**	(5.7)	(14.5)	13.9	(5.7)	(11.3)	(14.1)
Interest	**(0.9)**	(0.8)	(5.4)	(6.2)	(9.3)	(4.9)	(1.9)
Taxation	**(0.9)**	0.3	4.8	2.5	2.7	3.7	4.0
Foreign exchange revaluation (non-cash)	**-**	-	(1.0)	(2.7)	3.3	(4.1)	(1.0)
Net profit/(loss)	**19.0**	(6.2)	(16.1)	7.5	(9.0)	(16.6)	(13.0)

In arriving at Operating profit/(loss) it is necessary to deduct from Operating EBITDA the non-cash items referred to above. The depreciation charge was higher in 2021 due to the full year impact of Oxbox becoming operationally active, conversion of one of the Windrush facility floors into laboratories, and then also due to additional bioprocessing equipment obtained to allow vaccine manufacturing. The Orchard Therapeutics asset held at fair value through profit and loss decreased by £0.2 million due to negative share price movements. The interest charge of £0.9 million was slightly higher due to additional interest on IFRS 16 leased bioprocessing equipment. The corporation tax expense increased due to a corporation tax charge expected on the taxable profits made by the Group during the period.

Segmental analysis

Reflecting the way the business is currently being managed by the Senior Executive Team, the Group reports its results within two segments, namely:

I. the 'Platform' segment which includes the revenue generating bioprocessing and process development activities for third parties (i.e. the Partner programmes CDMO business), and internal technology projects to develop new potentially saleable technology, improve the Group's current processes, and bring development and manufacturing costs down within the LentiVector® platform.

II. The "Product" segment, which includes the costs of researching and developing new gene therapeutic product candidates.

£m	Platform	Product	Total
2021			
Revenue	**142.7**	**0.1**	**142.8**
Operating EBITDA	**45.3**	**(9.4)**	**35.9**
Operating profit/(loss)	**31.4**	**(10.6)**	**20.8**
2020			
Revenue	87.1	0.6	87.7
Operating EBITDA	13.9	(6.6)	7.3
Operating profit/(loss)	2.0	(7.7)	(5.7)

The Platform segment in 2021 saw an increase in revenue of 64% from £87.1 million to £142.7 million due to the volume of the adenovirus-based Oxford AstraZeneca COVID-19 vaccine batches manufactured for AstraZeneca as part of the COVID-19 pandemic efforts. This was offset by a decrease in commercial development revenues from existing customers AstraZeneca, Novartis and Orchard as activities transitioned over to more clinical and commercial batch manufacture. Operational results were very positively impacted by the large revenue increases, but especially the fact that the Oxbox manufacturing facility operated at almost full capacity for most of the year which meant that revenues more than offset the additional investment in headcount and facilities, resulting in an Operating EBITDA profit of £45.3 million, and an operating profit of £31.4 million. The Group will target increased bioprocessing volumes and commercial development revenues from its customer base in the coming year whilst recognising that the adenovirus-based Oxford AstraZeneca COVID-19 vaccine volumes are not expected to be at the same levels as seen during 2021.

The Product segment has generated revenues of £0.1 million (2020: £0.6 million) and an Operating EBITDA loss and Operating loss of £9.4 million and £10.6 million respectively (2020: loss of £6.6 million and £7.7 million respectively). Clinical development revenues decreased due to lower levels of activities performed for Sanofi and Sio Gene Therapies.

Cash flow

The Group held £108.9 million of cash at 31 December 2021, having begun the year with £46.7 million. Significant movements across the year are explained below.

Cash flow movements	2021	2020	2019	2018	2017	2016	2015
Operating profit/(loss)	**20.8**	(5.7)	(14.5)	13.9	(5.7)	(11.3)	(14.1)
Non-cash items included in operating profit/(loss)	**15.1**	13.0	9.3	(0.5)	3.8	4.2	2.0
Operating EBITDA	**35.9**	7.3	(5.2)	13.4	(1.9)	(7.1)	(12.1)
Working capital movement	**(11.4)**	(11.2)	(1.4)	(4.2)	0.4	1.2	(2.8)
Cash generated from/(used in) operations	**24.5**	(3.9)	(6.6)	9.2	(1.5)	(5.9)	(14.9)
R&D tax credit received	**1.0**	7.0	3.1	3.7	4.5	4.1	3.2
Net cash generated from/(used in) operations	**25.5**	3.1	(3.5)	12.9	3.0	(1.8)	(11.7)
Interest paid, less received	**-**	-	(3.3)	(4.7)	(10.8)	(3.3)	(1.5)
Sale of investment asset	**-**	2.5	6.3	-	-	-	-
Capex	**(9.5)**	(13.4)	(25.8)	(10.1)	(2.0)	(6.4)	(16.6)
Net cash inflow/(burn)	**16.0**	(7.8)	(26.3)	(1.9)	(9.8)	(11.5)	(29.8)
Net proceeds from financing	**46.2**	38.3	10.3	19.8	8.8	17.5	25
Movement in year	**62.2**	30.5	(16.0)	17.9	(1.0)	6.0	(4.8)

— The operating profit in 2021 was £26.5 million better than the operating loss of £5.7 million achieved in 2020 due to the large increase in revenues only partially offset by increased operating expenses. These improved operational results flowed through to the Operating EBITDA profit of £35.9 million (2020: £7.3 million profit).

— The negative working capital movement of £11.4 million is driven by a decrease in Contract liabilities (£15.7 million) offset by receipt of the 2020 RDEC tax credit.

— The Group received £1.0 million R&D tax funding in 2021 in respect of the 2020 claim, down £6.0 million from the prior year. The decrease from 2020 was due to the Group not being eligible to claim a tax credit under the Governments SME tax credit scheme from 2020 onwards due to its growth in size.

— No funds were generated from the sale of shares in Orchard Therapeutics (2020: £2.5 million), an asset held at fair value through profit and loss.

— Purchases of property, plant and equipment decreased from £13.4 million to £9.5 million, mainly as a result of the main construction phase of the new Oxbox manufacturing facility being completed in 2020, with capex in 2021 relating to the purchase of manufacturing and laboratory equipment, and the fit out of laboratory space on one of the floors of the Windrush Court Head Office.

— The net proceeds from financing during 2021 was £46.2 million, consisting of the £50.0 million equity investment by Serum Life Sciences Ltd, share option issues of £1.6 million, and reduced by lease payments of £5.4 million in the year. £3.7 million of lease payments made consisted of bioprocessing equipment leased for purposes of vaccine manufacturing which the Group now owns, and

— The result of the above movements is a net increase in cash of £62.2 million from £46.7 million to £108.9 million.

Statement of financial position review

The most notable items on the Statement of financial position, including changes from 31 December 2020, are as follows:

— Property, plant and equipment has decreased by £2.6 million to £69.7 million as depreciation of £12.4 million more than offset additions of £9.5 million, mainly purchases of manufacturing and laboratory equipment and the fit out of laboratory space on one of the floors of the Windrush Court head office.

— Inventories have increased from £6.9 million to £9.5 million due to increased raw material balances as a result of forecasted bioprocessing manufacturing activities.

— Trade and other receivables decreased from £57.5 million to £48.4 million due to decreased levels of bioprocessing and process development activities across the year end as compared to 2020.

— Trade and other payables decreased slightly from £19.7 million to £19.1 million, due to a lower level of operational activity at the year end as compared to the prior year end.

— Contract liabilities decreased from £28.3 million in 2020 to £12.6 million as the high level of funds received in advance for future bioprocessing and process development activities at the end of 2020 was recognised as revenue during 2021 as the performance obligations were met.

— Deferred Income decreased from £3.5 million in 2020 to £2.7 million due to the release of amounts deferred as part of the Innovate UK capex grant funding.

— Provisions increased by £0.4 million as a result of the recognition of an increased liability for the costs of restoring leased properties to their original state at the end of the lease term.

— Lease liabilities decreased from £13.8 million to £9.3 million due to lease payments made in the year, but specifically, £3.7 million of lease payments made relating to bioprocessing equipment leased for purposes of vaccine manufacturing which the Group now owns.

Financial outlook

The Group will continue to target growth in its lentiviral vector manufacturing volumes, as well as growth in commercial development activities. Oxford Biomedica Solutions is expected to contribute AAV manufacturing and commercial development revenues through services provided to Homology Medicines during 2022. In addition, the Group will seek to secure both new lentiviral vector and AAV customer relationships in line with the strategy to become an innovative global viral vector leader, operating in all viral vector types.

Vaccine manufacturing volumes are expected to be substantially lower during 2022 due to the end of the 18-month supply agreement with AstraZeneca, and a pause in manufacturing activity while discussions continue on a potential extension of this supply agreement. As a result, overall revenues are expected to be lower than in 2021 (but significantly ahead of 2020) with an expected corresponding impact on Operating EBITDA.

The Group will be focused on making select investments, aimed at accelerating Oxford Biomedica Solutions commercial activities and build market share in the fast-growing AAV market. As a result, administrative expenses are expected to be significantly higher than in 2021 as the Group makes one-off expenditures in building and integrating Oxford Biomedica Solutions. Bioprocessing costs are also expected to be higher as the Group builds the AAV customer base.

The Group will continue to accelerate investment in R&D in order to maintain its competitive edge and build a leading position in AAV, in addition to lentiviral vectors. Apart from investments aimed at building long term revenue growth, the Group will be closely monitoring its operating cost base and headcount, which we expect to be affected by inflation in both salaries and costs.

The integration of Oxford Biomedica Solutions is expected to be ongoing during the year and fully completed within 12 months. The consolidation of this initially loss-making part of the Group is expected to result in the Group being loss-making on an Operating EBITDA level in 2022, however with significant growth targeted in 2023.

The contracts signed in 2021 with Arcellx, Immatics and Cabaletta Bio, together with continued bioprocessing and commercial development activities performed for existing customers, is expected to drive a broadening out of the future revenue base and should put the Group in a strong position to achieve future operational profitability.

Continuing the implementation of its long-term strategy, the Group will continue to focus on building and maintaining the Group's commercial relationships with customers, both existing and new. The success of the Group's customers is seen as key to the Group's success, including driving growth in new customer relationships in 2022 and beyond in its existing LentiVector® and new AAV platform.

The Group will implement a cautious strategy with regards to capital expenditure with significant new projects only implemented if the Group's financial stability is not impacted and the business case details a clear long term strategic benefit to the Group. The Group continues to make selective strategic investments in its products and enabling technologies where the opportunity exists to improve patient outcomes and increase shareholder value.

Going concern

The financial position of the Group, its cash flows and liquidity position are described in the primary statements and notes to these financial statements.

The Group made a profit for the year ended 31 December 2021 of £19.0 million, and generated net cash flows from operating activities for the year of £25.5 million. The Group also raised an additional £50.0 million in cash through a successful equity placement by Serum Life Sciences Ltd in September 2021 and post year end has raised £80 million in January to March 2022. The Group ended the year with cash and cash equivalents of £108.9 million.

In considering the basis of preparation of the Annual report and accounts, the Directors have prepared cash flow forecasts for a period of at least 12 months from the date of approval of these financial statements, based in the first instance on the Group's 2022 annual budget and forecasts for 2023. The Directors have undertaken a rigorous assessment of the forecasts in a base case scenario and assessed identified downside risks and mitigating actions.

These cash flow forecasts also take into consideration severe but plausible downside scenarios including:

— A substantial manufacturing and development revenue downside affecting the core LentiVector® platform business,

— Vaccine manufacturing revenues only included to the extent contracted,

— No revenues from new customers,

— Significant decreases in forecasted existing customer milestone and royalty revenues, and

— The potential impacts of the current ongoing war in Ukraine on the Group and its customers including expected revenues from existing customers under long term contracts.

The Group entered into a $85 million (£64 million) loan facility with Oaktree Capital Management as part of the Group's acquisition of an 80% stake in Oxford Biomedica Solutions in March 2022. The facility was drawn down in full and the Group is required to repay this one year facility in March 2023. In both the Group's cash flow forecast and the mitigated downside scenarios, the Group is able to repay this loan in March 2023, but in the mitigated downside scenarios, the Group would need to obtain additional equity or loan financing in the third quarter of 2023 to continue operations.

However, despite the above requirement, the Board has confidence in the Group's ability to continue as a going concern for the following reasons:

— The Group's history of being able to access capital markets including raising £130 million of equity during the last nine months;

— The Group's history of being able to obtain loan financing when required for purposes of both capital expenditure and operational purposes, as recently evidenced by the $85 million one year facility obtained with Oaktree Capital Management;

— The Group's ability to continue to be successful in winning new customers and building its brand as demonstrated by successfully entering into new customer agreements with Arcellx, Immatics, Caballetta Bio and Boehringer Ingelheim;

— As noted above the Group has cash balances of £108.9 million at the end of December 2021 and £144 million at the end of March 2022;

— More than two thirds of 2022 forecasted revenues are covered by binding purchase orders and rolling customer forecasts which give confidence in the level of revenues forecast over the next 12 months; and

— The Group has the ability to control capital expenditure costs and lower other operational spend, as necessary.

Taking account of the matters described above, the Directors remain confident that the Group will have sufficient funds to continue to meet its liabilities as they fall due for at least 12 months from the date of approval of the financial statements and therefore have prepared the financial statements on a going concern basis.

Stuart Paynter
Chief Financial Officer

Consolidated statement of comprehensive income
for the year ended 31 December 2021

		Group	
		2021	2020
		Total	Total
Continuing operations	Note	**£'000**	£'000
Revenue		**142,797**	87,728
Cost of sales		**(60,157)**	(41,655)
Gross profit		**82,640**	46,073
Research and development costs		**(40,189)**	(29,749)
Bioprocessing costs		**(7,233)**	(10,720)
Administrative expenses		**(15,152)**	(11,262)
Other operating income		**867**	795
Change in fair value of asset held at fair value through profit and loss	6	**(165)**	(831)
Operating profit/(loss)		**20,768**	(5,694)
Finance income		**-**	34
Finance costs		**(888)**	(912)
Profit/(Loss) before tax		**19,880**	(6,572)
Taxation	3	**(869)**	327
Profit/(Loss) and total comprehensive expense for the year		**19,011**	(6,245)
Basic profit/(loss) per share		**22.77p**	(7.81p)
Diluted profit/(loss) per share		**22.20p**	(7.81p)

There was no other comprehensive income or loss.

The profit for the year is attributable to the owners of the parent.

The notes on pages 28 to 36 form part of this preliminary information.

Statement of financial position
as at 31 December 2021

	Note	Group 2021 £'000	2020 £'000
Assets			
Non-current assets			
Intangible assets		**52**	73
Property, plant and equipment	5	**69,728**	72,304
Trade and other receivables		**3,605**	3,605
		73,385	75,982
Current assets			
Inventories	7	**9,521**	6,912
Assets at fair value through profit and loss	6	**74**	239
Trade and other receivables	8	**44,747**	53,926
Current tax assets		**558**	126
Cash and cash equivalents		**108,944**	46,743
		163,844	107,946
Current liabilities			
Trade and other payables	9	**19,058**	19,716
Contract liabilities	10	**12,502**	27,258
Deferred income	10	**894**	1,006
Lease liabilities		**853**	4,475
		33,307	52,455
Net current assets		**130,537**	55,491
Non-current liabilities			
Provisions	11	**6,244**	5,839
Contract liabilities	10	**92**	1,003
Deferred income	10	**1,760**	2,515
Lease liabilities		**8,488**	9,370
		16,584	18,727
Net assets		**187,338**	112,746
Equity attributable to owners of the parent			
Ordinary share capital		**43,088**	41,161
Share premium account		**307,765**	258,017
Other reserves		**2,291**	2,291
Accumulated losses		**(165,806)**	(188,723)
Total equity		**187,338**	112,746

The notes on pages 28 to 36 form part of this preliminary information.

Statement of cash flows
for the year ended 31 December 2021

	Note	Group 2021 £'000	2020 £'000
Cash flows from operating activities			
Cash generated from/ (used in) operations	12	**24,461**	(3,889)
Tax credit received		**994**	7,005
Net cash generated from/ (used in) operating activities		**25,455**	3,116
Cash flows from investing activities			
Purchases of property, plant and equipment		**(9,461)**	(13,358)
Proceeds on disposal of investment assets		**-**	2,523
Interest received		**-**	34
Net cash used in investing activities		**(9,461)**	(10,801)
Cash flows from financing activities			
Proceeds from issue of ordinary share capital		**51,600**	41,060
Costs of share issues		**-**	(1,724)
Payment of lease liabilities		**(4,520)**	(292)
Interest paid		**(873)**	(859)
Net cash generated from financing activities		**46,207**	38,185
Net increase in cash and cash equivalents		**62,201**	30,500
Cash and cash equivalents at 1 January		**46,743**	16,243
Cash and cash equivalents at 31 December		**108,944**	46,743

The notes on pages 28 to 36 form part of this preliminary information.

Statement of changes in equity attributable to owners of the parent company
for the year ended 31 December 2021

Group	Ordinary shares £'000	Share premium account £'000	Merger Reserve £'000	Accumulated losses £'000	Total equity £'000
At 1 January 2020	38,416	222,618	2,291	(187,695)	75,630
Year ended 31 December 2020:					
Loss for the year	-	-	-	(6,245)	(6,245)
Total comprehensive expense for the year	-	-	-	(6,245)	(6,245)
Transactions with owners:					
Share options					
Proceeds from shares issued	245	841	-	(26)	1,060
Value of employee services	-	-	-	3,752	3,752
Deferred tax on share options	-	-	-	273	273
Issue of shares excluding options	2,500	37,500	-	-	40,000
Cost of share issues	-	(1,724)	-	-	1,724
Transfer of share premium related to warrants	-	(1,218)	-	1,218	-
At 31 December 2020	**41,161**	**258,017**	**2,291**	**(188,723)**	**112,746**
Year ended 31 December 2021:					
Loss for the year	**-**	**-**	**-**	**19,011**	**19,011**
Total comprehensive income for the year	**-**	**-**	**-**	**19,011**	**19,011**
Transactions with owners:					
Share options					
Proceeds from shares issued	**236**	**1,439**	**-**	**(75)**	**1,600**
Value of employee services	**-**	**-**	**-**	**3,523**	**3,523**
Tax on share options	**-**	**-**	**-**	**458**	**458**
Deferred tax on share options	**-**	**-**	**-**	**-**	**-**
Issue of shares excluding options	**1,691**	**48,309**	**-**	**-**	**50,000**
At 31 December 2021	**43,088**	**307,765**	**2,291**	**(165,806)**	**187,338**

NOTES TO THE PRELIMINARY FINANCIAL INFORMATION for the year ended 31 December 2021

1 Basis of accounting

This preliminary announcement was approved by the Board of Directors on 20 April 2022.

The financial information set out above does not constitute the Company's statutory accounts for the years ended 31 December 2021 or 2020 but is derived from those accounts.

Statutory accounts for 2020 have been delivered to the registrar of companies, and those for 2021 will be delivered in due course.

The auditor has reported on the 2021 accounts; their report was (i) unqualified, (ii) did not include a reference to any matters to which the auditor drew attention by way of emphasis without qualifying their report; and (iii) did not contain a statement under Section 498 (2) or (3) of the Companies Act 2006.

Going concern

The financial position of the Group, its cash flows and liquidity position are described in the primary statements and notes to these financial statements.

The Group made a profit for the year ended 31 December 2021 of £19.0 million, and generated net cash flows from operating activities for the year of £25.5 million. The Group also raised an additional £50.0 million in cash through a successful equity placement by Serum Life Sciences Ltd in September 2021 and post year end has raised £80 million in January to March 2022. The Group ended the year with cash and cash equivalents of £108.9 million.

In considering the basis of preparation of the Annual report and accounts, the Directors have prepared cash flow forecasts for a period of at least 12 months from the date of approval of these financial statements, based in the first instance on the Group's 2022 annual budget and forecasts for 2023. The Directors have undertaken a rigorous assessment of the forecasts in a base case scenario and assessed identified downside risks and mitigating actions.

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— The potential impacts of the current ongoing war in Ukraine on the Group and its customers including expected revenues from existing customers under long term contracts.

The Group entered into a $85 million (£64 million) loan facility with Oaktree Capital Management as part of the Group's acquisition of Oxford Biomedica Solutions in March 2022. The facility was drawn down in full and the Group is required to repay this one year facility in March 2023. In both the Group's cash flow forecast and the mitigated downside scenarios, the Group is able to repay this loan in March 2023, but in the mitigated downside scenarios, the Group would need to obtain additional equity or loan financing in the third quarter of 2023 to continue operations.

However, despite the above requirement, the Board has confidence in the Group's ability to continue as a going concern for the following reasons:

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— The Group's ability to continue to be successful in winning new customers and building its brand as demonstrated by successfully entering into new customer agreements with Arcellx, Immatics, Caballetta Bio and Boehringer Ingelheim,

— As noted above the Group has cash balances of £108.9 million at the end of December 2021 and £144 million at the end of March 2022,

— More than two thirds of 2022 forecasted revenues are covered by binding purchase orders and rolling customer forecasts which give confidence in the level of revenues forecast over the next 12 months, and

— The Group has the ability to control capital expenditure costs and lower other operational spend, as necessary.

Taking account of the matters described above, the Directors remain confident that the Group will have sufficient funds to continue to meet its liabilities as they fall due for at least 12 months from the date of approval of the financial statements and therefore have prepared the financial statements on a going concern basis.

2 Critical accounting judgements and estimates

In applying the Group's accounting policies, management is required to make judgements and assumptions concerning the future in a number of areas. Actual results may be different from those estimated using these judgements and assumptions. The key sources of estimation uncertainty and the critical accounting judgements that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

Key accounting matters

Judgements

Contract revenues: Identification of performance obligations, allocation of revenue and timing of revenue recognition

The Group has identified three key areas of judgement within the collaboration agreements entered into during the period. Firstly, in relation to the number of distinct performance obligations contained within each collaboration agreement; secondly the fair value allocation of revenue to each performance obligation; and thirdly the timing of revenue recognition based on the achievement of the relevant performance obligation. The sales royalties contained within the collaboration agreements qualify for the royalty exemption available under IFRS 15 and will only be recognised as the underlying sales are made even though the performance obligation, in terms of the technology licence, has already been met.

Number of distinct performance obligations

Upon review of certain customer contracts and preparation of accounting papers setting out the accounting treatment as per IFRS 15, the Group is required to exercise judgement in identifying the distinct performance obligations contained within the contract. These have been identified as being:

— The granting of technology licences

— Milestones relating to bioprocessing or process development activities

The fair value allocation of revenue to each performance obligation

Because there is no readily available market price for many of the performance obligations contained in the customer contracts, the Group exercises judgment in estimating the stand alone selling price of each of these performance obligations. Key areas of judgement are assessed to be:

— The stand alone selling price of technology licences. The Group assesses the stand alone selling price of licences by reference to the stand alone selling price of previously recognised customer technology licences, and the size of the market of the target indication and other market related observable inputs

— The stand alone selling price of bioprocessing batches. The Group assesses the stand alone selling price of the batches in terms the stand alone selling price of its other customer contract batch selling prices

— The stand alone selling price in terms of the annual full time equivalent rate to charge for process development activities. The Group assesses the full time equivalent rate in terms the stand alone equivalent rate of its other customer contract equivalent rates

Timing of revenue recognition: technology licence revenues

One of the key judgemental areas identified within the collaboration agreements is the timing of recognition of licence revenue based on the achievement of the relevant performance obligation. The individual factors and aspects relating to licence revenue are assessed as part of the IFRS 15 accounting paper prepared for each agreement and a judgement is made as to whether the licence fee performance obligation related to the granting of the licence to the customer has been achieved. If it was judged that the performance obligations on licences granted in 2021 had not been met, revenues would have been £5.9 million lower with the revenue expected to be recognised in future when the performance obligations were deemed to have been met.

Customer contract with varying bioprocessing batch prices

During 2020 the Group entered into a supply agreement with a customer for the supply of bioprocessing batches where the batch price will vary across the period of the contract. The Group has deemed that the series guidance within IFRS 15 applies and has therefore recognised revenue based on averaging the batch price over the period of the contract where the series guidance applies. If the revenue had been recognised based on an actual batch price, revenues would have been £0.3 million (2020: £2.4 million) higher with a corresponding decrease in revenues in future years.

Estimations

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below. The nature of estimation means that actual outcomes could differ from those estimates.

Percentage of completion of bioprocessing batch revenues

Bioprocessing of clinical/commercial product for partners is recognised on a percentage of completion basis over time as the processes are carried out. Progress is determined based on the achievement of verifiable stages of the bioprocessing process. Revenues are recognised on a percentage of completion basis and as such require estimation in terms of the assessment of the correct stage of completion including the expected costs to completion for that specific bioprocessing batch. The value of the revenue recognised with regard to the bioprocessing batches which remain in progress at year end is £15,195,000. The contract assets related to these batches, as at the year end was £6,404,000. If the assessed percentage of completion was 10 percentage points higher or lower, revenue recognised in the period would have been £1,520,000 higher or lower.

Percentage of completion of fixed price process development revenues

As it satisfies its performance obligations the Group recognises revenue and the related contract asset with regard to fixed price process development work packages. Revenues are recognised on a percentage of completion basis and as such require estimation in terms of the assessment of the correct percentage of completion for that specific process development work package. The value of the revenue recognised raised with regard to the work packages which remain in progress at year end is £8,022,000. The contract assets related to these work packages as at the year end was £2,493,000. If the assessed percentage of completion was 10 percentage points higher or lower, revenue recognised in the period would have been £802,000 higher or lower.

Provision for out of specification bioprocessing batches

Bioprocessing of clinical/commercial product for partners is recognised on a percentage of completion basis over time as the processes are carried out. Progress is determined based on the achievement of verifiable stages of the process.

As the Group has now been bioprocessing product across a number of years, and also in a commercial capacity, the Group has assessed the need to include an estimate of bioprocessed product for which revenue has previously been recognised and which may be reversed should the product go out of specification during the remaining period over which the product is bioprocessed. In calculating this estimate the Group has looked at historical rates of out of specification batches across the last four years, and has applied the percentage of out of specification batches to total batches produced across the assessed period to the revenue recognised on batches which have not yet completed the bioprocessing process at year end. This estimate, based on the historical percentage, may be significantly higher or lower depending on the number of bioprocessing batches actually going out of specification in future. If the historical percentage had been 10% higher or lower, the estimate would be £67,000 higher or lower. The estimate will increase or decrease based on the number of bioprocessing batches undertaken, the percentage of completion of those bioprocessing batches, and the number of batches which go out of specification over the assessment period.

Consequently, bioprocessing revenue of £0.7 million (2020: £1.4 million) has not been recognised during 2021 with the corresponding credit to contract liabilities (note 19). This revenue will be recognised as the batches complete bioprocessing.

Bioprocessing contract modification

On 13 December 2021, the Group announced an update to its Commercial Supply Agreement with Novartis. The changes to the agreement have been determined to be a licence modification, under IFRS 15. The contract has been accounted for prospectively as if it were terminated and a new contract created; with the remaining unrecognised transaction price allocated to remaining performance obligations. This resulted in breakage revenue of £4.8 million being recognised at modification from batch reservations to be manufactured in 2021, as there was no longer an expectation that remaining batches would be ordered.

3 Taxation

During 2020 the Group ceased being eligible to claim a research and development tax credits under the Government's small company scheme.

	2021	2020
Current tax	**£'000**	£'000
Corporation tax	**(1,427)**	(1,140)
	(1,427)	(1,140)
Adjustments in respect of prior periods:		
United Kingdom corporation tax research and development credit	**558**	1,467
Current tax	**(869)**	327
Taxation (Charge)/Credit	**(869)**	327

The amount of £1,427,000 included as part of the taxation charge within the statement of comprehensive income for the year ended 31 December 2021 comprises the corporation tax payable on the amount claimed as a Large Company Tax credit (RDEC) within research and development expenses in the statement of comprehensive income.

The adjustment of current tax in respect of the prior year of £558,000 (2020: £1,467,000) relates to a higher than anticipated tax receipt received in 2021: £nil (2020: £473,000), and an expected tax repayment relating to prior years of £558,000 (2020: £994,000).

The United Kingdom corporation tax research and development credit is paid in arrears once tax returns have been filed and agreed. The tax credit recognised in the financial statements but not yet received is included in current tax assets in the Statement of financial position.

During 2021 the Group recognised £458,000 (2020: £273,000) of current tax relating to tax relief obtained on exercise of share options directly within equity.

4 Basic and diluted profit/(loss) per ordinary share

The basic profit per share of 22.77p (2020: loss of 7.81p) has been calculated by dividing the profit for the period by the weighted average number of shares in issue during the year ended 31 December 2021 (83,484,173; 2020: 79,944,911).

The diluted earnings per share of 22.20p has been calculated by dividing the earnings for the period by the weighted average number of shares in issue during the period after adjusting for the dilutive effect of the share options outstanding at 31 December 2021 (2,134,494).

The Group made a loss in the prior period. There were no potentially dilutive options in the prior period. There is therefore no difference between the basic loss per ordinary share and the diluted loss per ordinary share in the prior period.

5 Property, plant and equipment

	Freehold property £'000	Leasehold improve-ments £'000	Office equipment and computers £'000	Bioprocessing and Laboratory equipment £'000	Right of use asset £'000	Total £'000
Cost						
At 1 January 2021	23,331	27,219	9,106	24,606	18,012	102,274
Additions at cost	2,078	939	1,557	4,886	21	9,481
Reclassification	-	(13)	-	13	-	-
Change in estimate	-	-	-	-	378	378
At 31 December 2021	**25,409**	**28,145**	**10,663**	**29,505**	**18,411**	**112,133**
Accumulated depreciation						
At 1 January 2021	10,444	3,519	4,610	9,177	2,220	29,970
Charge for the year	2,208	2,707	2,253	3,342	1,925	12,435
At 31 December 2021	**12,652**	**6,226**	**6,863**	**12,519**	**4,145**	**42,405**
Net book amount at 31 December 2021	**12,757**	**21,919**	**3,800**	**16,986**	**14,266**	**69,728**

	Freehold property £'000	Leasehold improve-ments £'000	Office equipment and computers £'000	Bioprocessing and Laboratory equipment £'000	Right of use asset £'000	Total £'000
Cost						
At 1 January 2020	21,427	21,908	7,395	20,174	11,400	82,304
Additions at cost	1,678	4,659	1,484	5,537	6,361	19,719
Reclassification	226	652	227	(1,105)	-	-
Disposals	-	-	-	-	-	-
Change in estimate	-	-	-	-	251	251
At 31 December 2020	**23,331**	**27,219**	**9,106**	**24,606**	**18,012**	**102,274**
Accumulated depreciation						
At 1 January 2020	8,360	1,679	3,054	6,440	839	20,372
Charge for the year	2,084	1,840	1,556	2,737	1,381	9,598
At 31 December 2020	**10,444**	**3,519**	**4,610**	**9,177**	**2,220**	**29,970**
Net book amount at 31 December 2020	**12,887**	**23,700**	**4,496**	**15,429**	**15,792**	**72,304**

6 Assets at fair value through profit and loss

Assets at fair value through profit and loss (FVTPL):	**2021 £'000**	2020 £'000
At 1 January	**239**	2,719
Additions	**-**	-
Sale of shares	**-**	(2,523)
Change in fair value of FVTPL asset	**(165)**	(1,883)
At 31 December	**74**	239

Additions in 2020 relate to a contract asset milestone which was met in 2019 with the shares received in 2020 as part of a non-cash consideration.

7 Inventories

	2021 £'000	2020 £'000
Raw Materials	**9,521**	6,912
Total Inventory	**9,521**	6,912

Inventories constitute raw materials held for commercial bioprocessing purposes.

During the year, the Group wrote down £134,000 (2020: £171,000) of inventory which is not expected to be used in production or sold onwards. The Company holds no inventories.

8 Trade and other receivables

	2021 £'000	2020 £'000
Trade receivables	**22,398**	30,819
Contract assets	**13,547**	16,508
Other receivables	**365**	558
Other tax receivable	**5,227**	3,412
Prepayments	**3,210**	2,629
Total trade and other receivables	**44,747**	53,926

Non-current trade and other receivables constitute other receivables of £3,605,000 (2020: £3,605,000) are deposits held in escrow as part of the Windrush Innovation Centre and Oxbox lease arrangements.

The other tax receivable constitutes RDEC receivable £4,137,000; VAT receivable £536,000 and recoverable Withholding Tax £554,000.

The fair value of trade and other receivables are the current book values. The Group has performed an impairment assessment under IFRS 9 and has concluded that the application of the expected credit loss model has had an immaterial impact on the level of impairment of receivables.

Included in the Group's trade receivable balance are debtors with a carrying amount of £3,800,000 (2020: £9,523,000) which were past due at the reporting date and of which £3,800,000 (2020: £9,460,000) has been received after the reporting date.

Contract assets
Contract assets relates to the Group's rights to consideration for work completed but not invoiced at the reporting date for commercial development work and bioprocessing batches. The contract assets are transferred to receivables when the rights become unconditional. This usually occurs when the Group issues an invoice to the customer.

The balance of £13.5 million (2020: £16.5 million) mainly relates to commercial development milestones which have been accrued as the specific conditions stipulated in the licence agreement have been met, commercial development work orders accrued on a percentage complete basis which will be invoiced as the related work package completes and bioprocessing batches accrued on a percentage of completion basis which will be invoiced as the manufacturing of the batch is completed.

Contract assets have decreased from £16.5 million at the end of 2020 to £13.5 million at the end of 2021 due to the timing of bioprocessing and commercial development activities undertaken during the year leading to a lower level of consideration for work completed but not yet billed (2020: Contract assets have increased from £13.4 million at the end of 2019 to £16.5 million at the end of 2020 due to the increased levels of bioprocessing and commercial development activities undertaken during the year leading to a higher level of consideration for work completed but not yet billed).

A portion of contract assets relates to fixed price process development work packages which are recognised on a percentage of completion basis and as such requires estimation in terms of the assessment of the correct percentage of completion for that specific work package. The value of the contract asset raised with regard to these work packages is £8,022,000 (2020: £6,677,000). If the assessed percentage of completion was 1 percentage point higher or lower, revenue recognised in the period would have been £80,000 higher or lower (2020: £67,000).

The Group performed an impairment assessment under IFRS 9 and has concluded that the application of the expected credit loss model has had an immaterial impact on the level of impairment on contract assets. We have noted there has been no change in the time frame for a right to consideration to become unconditional and the performance obligation to be satisfied.

9 Trade and other payables

	2021	2020
	£'000	£'000
Trade payables	**5,260**	7,777
Other taxation and social security	**1,899**	1,585
Accruals	**11,899**	10,354
Total trade and other payables	**19,058**	19,716

10 Contract liabilities and deferred income

Contract liabilities and deferred income arise when the Group has received payment for services in excess of the stage of completion of the services being provided.

Contract liabilities and deferred income have decreased from £31.8 million at the end of 2020 to £15.3 million at the end of 2021 due to funds received in advance for future bioprocessing and process development activities. These amounts received in advance are short term and do not constitute a significant financing component. Of the £31.8 million balance included in the statement of financial position at the end of 2020, £27.5 million has been recognised as revenue during the 2021 financial year (2020: Contract liabilities and deferred income have increased from £14.9 million at the end of 2019 to £28.3 million at the end of 2020 due to funds received in advance for future bioprocessing and process development activities).

Contract liabilities consists primarily of deferred bioprocessing and process development revenues, which are expected to be released as the related performance obligations are satisfied over the period as described below:

Years	**0-1 £'000**	**1-3 £'000**	**3-5 £'000**	**5-10 £'000**	**Total £'000**
Contract liabilities	**12,502**	**48**	**44**	**-**	**12,594**
Bioprocessing income	9,755	-	-	-	9,755
Process development income	2,325	-	-	-	2,325
Licence fees and Milestones	422	48	44	-	514
Deferred income	**894**	**1,760**	**-**	**-**	**2,654**
Grant	894	1,760	-	-	2,654

Included within bioprocessing contract liabilities is revenue of £0.8 million which has not been recognised during 2021 (2020: £1.4 million) relating to the estimate of out of specification batches (see note 2: 'Estimations' for additional information).

Deferred income relates to grant funding received from the UK Government for capital equipment purchased as part of the Oxbox bioprocessing facility expansion. The income will be recognised over the period over which the purchased assets are depreciated.

11 Provisions

	2021 £'000	2020 £'000
At 1 January	**5,839**	5,086
Unwinding of discount	**27**	38
Change in estimate	**378**	251
Additional provision recognised	**-**	464
At 31 December	**6,244**	5,839

Provisions are exclusively in respect of dilapidations. The dilapidations provisions relate to anticipated costs of restoring the leasehold Yarnton, Oxbox, Windrush Innovation Centre and Corporate Office properties in Oxford, UK to their original condition at the end of the lease terms in 2024, 2033, 2028 and 2030 respectively, discounted using the rate per the Bank of England nominal yield curve. The equivalent rate was used in 2020. The provisions will be utilised at the end of the leases if they are not renewed.

12 Cash flows from operating activities

Reconciliation of profit before tax to net cash used in operations:

	2021	2020
	£'000	£'000
Continuing operations		
Profit/(loss) before taxation	**19,880**	(6,572)
Adjustment for:		
Depreciation	**12,435**	9,817
Amortisation of intangible assets	**21**	22
Net finance costs	**888**	878
Charge in relation to employee share schemes	**3,981**	3,289
Non-cash loss	**165**	831
Changes in working capital:		
Increase/(decrease) in trade and other receivables	**6,891**	(25,893)
Increase in trade and other payables	**(657)**	5,419
Decrease in deferred income	**(867)**	(795)
(Decrease)/increase in contract liabilities	**(15,667)**	13,410
Increase in provisions	**-**	38
Increase in inventory	**(2,609)**	(4,333)
Net cash generated from/(used in) operations	**24,461**	(3,889)

13 Subsequent events

On the 10th of March 2022 the Group acquired an 80% stake in the newly established Oxford Biomedica Solutions LLC (Oxford Biomedica Solutions) from Homology Medicines Inc., an AAV Manufacturing and Innovation Business, for £96 million ($130 million). Homology Medicines will continue to own 20% of the new company with both the Group and Homology Medicines retaining a put/call option to buy or sell the remaining 20% of Oxford Biomedica Solutions to the Group at any time subsequent to the 3 year anniversary of the acquisition. As part of the acquisition of the 80% stake, the Group also agreed to inject £37 million ($50 million) into Oxford Biomedica Solutions LLC for working capital purposes. Oxford Biomedica Solutions leases a GMP facility near Boston, Massachusetts, operating three 500-litre bioreactors using a serumfree suspension process, which has also been successfully scaled to 2,000 litres.

This acquisition will be treated as a business combination under IFRS 3. The total estimated purchase consideration of 100% of Oxford Biomedica Solutions is $225 million with a provisional fair value consideration of £167 million ($225 million). The provisional value of acquired net tangible assets is $49 million with fair value adjustments relating to the current cost of acquiring or constructing these assets. The remaining consideration will be allocated between identifiable intangible assets (AAV platform-related) and goodwill, with the majority expected to be intangibles being the AAV platform IP and Know-how acquired from Homology Medicines as part of the acquisition. Goodwill represents the control premium, the acquired workforce and the synergies expected from integrating Oxford Biomedica Solutions into the Group's existing business. The Group did not disclose an accounting method for non-controlling interest recognition, amounts for each major class of asset and liability acquired, and other requirements per IFR3 3, due to the short period of time from the date of acquisition till issuance of the annual accounts.

As part of the financing arrangements, the Group raised gross proceeds of £80 million through a placing of 9,876,544 shares at 810 pence per share. The placing was done in two tranches with 5,018,134 shares placed on the 28th of January 2022, and a further 4,858,410 shares were placed on the 10th of March 2022. Oxford Biomedica PLC also entered into a secured short term loan with Oaktree Capital Management for US$85 million (£64 million) which is repayable in twelve months after completion of the acquisition. The $85 million Oaktree loan is repayable no later than 10 March 2023 although it may be repaid, at the Group's discretion, at any time subject to early prepayment fees and an exit fee. The loan carries an interest rate of 8.5% The terms also include a financial

covenant relating to a requirement to hold a minimum of $10 million cash at all times. The Oaktree facility is secured by a pledge over substantially all of the Group's assets.