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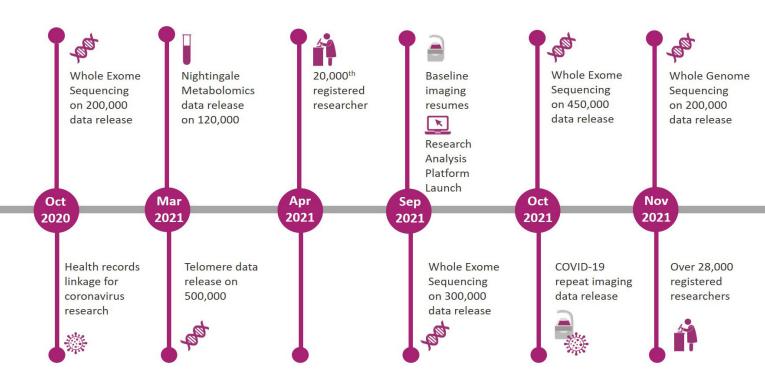
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UK Biobank Limited (Limited by Guarantee)

Report and Consolidated Financial Statements 30 September 2021

Company Registration number 04978912 Registered Charity in England and Wales number 1101332 Registered Charity in Scotland number SC039230

TIMELINE

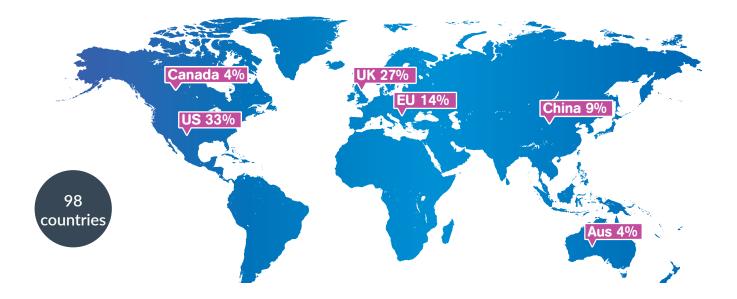


A TRULY GLOBAL RESOURCE

Over 28,000 registered researchers worldwide

16K

followers



"Whenever I see a paper which uses the @uk_biobank I feel an enormous sense of pride in the people who brought this to fruition and continue to make it a success, the participants who enabled its creation, the funding from charities and UK and Scottish goverments #science"

"The new @uk_biobank Research Analysis Platform will be a fantastic data resource for researchers - accelerating research into diagnosis, treatment and prevention of the most devastating diseases."

PIONEERING GENETIC SEQUENCING

The Whole Genome Sequencing project will make UK Biobank the most detailed genomics database in the world and is a truly pivotal moment for scientists studying the relationship between genetics and health outcomes. Sharing these data with the global research community will improve understanding, diagnosis, prevention and treatments for a range of common and life-threatening diseases."

Professor Sir Rory Collins, UK Biobank



UK Biobank data will grow from 15PB to 40PB BY 2025

OVER 3,500

PUBLISHED PAPERS



72,963

citations



DEMOCRATISING ACCESS

""This new research analysis platform will enable greater global access to UK Biobank and facilitate even greater understanding of why some people develop particular diseases and others do not."

Published Papers 1600 1400 1200 1000 800 600 400 200 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Professor Fiona Watts, MRC

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LEGAL AND ADMINISTRATIVE INFORMATION

REGISTRATIONS

Registered Charity in England and Wales number 1101332 Registered Charity in Scotland number SC039230 Registered Company number 04978912

REGISTERED OFFICE

1-2 Spectrum Way, Adswood, Stockport, Cheshire SK3 0SA

DIRECTORS AND TRUSTEES

Professor the Lord Kakkar - Chair Professor Martin Bobrow – Vice Chair Dominic Dodd (appointed 17 September 2021) Professor Ruth Gilbert Doug Gurr (appointed 17 September 2021) Professor Andrew Hattersley (resigned 17 September 2021) Tariq Khokhar (appointed 17 September 2021) Professor Anneke Lucassen Professor Sir Alex Markham Dr Sara Marshall (resigned 31 August 2021) Dr Joe McNamara Professor Bill Ollier (resigned 17 September 2021) Dame Nancy Rothwell (appointed 17 September 2021) Jonathan Tross CB (resigned 17 September 2021)

EXECUTIVE MANAGEMENT TEAM

Professor Sir Rory Collins - Chief Executive and Principal Investigator Professor Naomi Allen - Chief Scientist John Busby – Chief Operating Officer Dr Mark Effingham – Deputy Chief Executive Officer Gareth Gregory - Chief Finance Officer Rob McGeechan – Interim Chief Information Officer Jonathan Sellors - General Counsel and Company Secretary Dr Simon Sheard - Operations Director Dr Alan Young – Systems Architect

BANKERS

HSBC Bank plc 4 Hardman Square, 2nd Floor, Spinningfields, Manchester, M3 3EB Barclays Bank plc 38 Market Street, Crewe, CW1 2ET Lloyds Bank plc 8th Floor, 40 Spring Gardens, Manchester, M2 1EN

INDEPENDENT AUDITOR

KPMG LLP 1 St Peter's Square, Manchester, M2 3AE

SOLICITORS

Eversheds Sutherlands LLP Two New Bailey, 6 Stanley Street, Salford, M3 5GX

This report provides a review of the activities and business for UK Biobank Limited ('UK Biobank') and its wholly owned trading subsidiary, UK Biocentre Limited (collectively 'the group') for the year ended 30 September 2021. It outlines the group's development and performance for the financial year, the financial position at the end of the year and its plans for the future. The report also describes the risks facing the group and how these risks are managed.

1. BUSINESS AND ACTIVITY REVIEW

About UK Biobank

UK Biobank is a large-scale biomedical database and research resource containing anonymised genetic, lifestyle and health information from half a million UK participants.

UK Biobank's database, which includes blood samples, heart and brain scans and genetic data of the volunteer participants, is globally accessible to approved researchers who are undertaking health-related research that's in the public interest.

UK Biobank recruited 500,000 people aged between 40-69 years in 2006-2010 from across the UK. With their consent, they provided detailed information about their lifestyle, physical measures and had blood, urine and saliva samples collected and stored for future analysis.

UK Biobank's research resource is a major contributor in the advancement of modern medicine and treatment, enabling better understanding of the prevention, diagnosis and treatment of a wide range of serious and life-threatening illnesses – including cancer, heart diseases and stroke. Since the UK Biobank resource was opened for research use in April 2012, over 27,000 researchers from 90+ countries have been approved to use it and more than 3,000 peer-reviewed papers that used the resource have now been published.

UK Biobank is generously supported by its founding funders the UK Medical Research Council (MRC) and Wellcome, as well as the British Heart Foundation, Cancer Research UK, the National Institute of Health Research (NIHR), UK Research and Innovation (UKRI). The organisation has over 180 dedicated members of staff, based in multiple locations across the UK.

Activities

UK Biobank undertakes 'core' activities (met by unrestricted funds) to provide access to existing samples and data for health-related research, and activities (met by restricted funding) to further enhance the data and samples we hold.

A. Core activities to provide access to UK Biobank data and samples

'Core' funding has enabled the recruitment of participants, the secure management of the consented data relating to these participants, the linkage of the resource to participant healthcare records and the opening of the resource to the research community for the purposes of health research. This funding has been provided in three key phases, summarised below:

- Initial recruitment (2006-2010) £66.0m to support the recruitment of 500,000 participants and develop an ethical framework.
- **2010-2017** £35.0m to further enhance the resource, make it available to the medical research community, and undertake repeat assessments on 20,000 participants.
- 2017-2022 £31.7m to expand the linkages to health-related records for all participants and to create 'research-ready' health outcomes to support longitudinal research.

Funder	Recruitment Phase 2006 - 2010	5 years to 30 June 2015	2 years to 30 June 2017	5 years to 30 June 2022	Total
	£m	£m	£m	£m	£m
Medical Research Council	28.6	11.9	5.0	12.4	57.9
Wellcome	28.6	11.9	5.0	12.4	57.9
Department of Health	6.6	1.2	-	-	7.8
North West Development Agency	0.5	-	-	-	0.5
Scottish Government	0.5	-	-	-	0.5
Welsh Assembly	0.2	-	-	-	0.2
British Heart Foundation	1.0	-	-	3.2	4.2
Cancer Research UK	-	-	-	2.5	2.5
National Institute of Health Research	-	-	-	1.2	1.2
Total	66.0	25.0	10.0	31.7	132.7

Core funding received during the year ended 30 September 2021 was £7.0m (2020: £7.0m). In addition, goods and services were donated to the value of £4.9m (2020: £nil) and income was generated from Access fees of £2.3m (2020: £2.2m). In respect of this funding, UK Biobank acquired assets to the value of £0.1m (2020: £0.5m), incurred expenditure on staffing and other costs, excluding depreciation, of £9.1m (2020: £7.7m), and used donated goods and services of £4.9m (2020: £nil).

Access to UK Biobank data and samples

In addition to our core funding, UK Biobank receives income from fees to access our data and samples.

UK Biobank's access protocols are designed to ensure that data are released only to *bona fide* researchers for health-related research in the public interest. All participant data released to approved researchers are provided on a de-identified basis and, in addition, researchers are contractually prohibited under UK Biobank's material transfer agreement from attempting to re-identify participants.

UK Biobank's access procedures do not discriminate between academic, charitable or commercial applicants or between national or international applicants: all applicants are treated in the same way, are subject to the same access criteria and (with certain articulated exceptions for students and applicants for low/middle income countries) pay the same access fees. This strategy has led to substantial investment in enhancing the UK Biobank resource from industrial sources (as noted in the following section).

During the year, UK Biobank introduced a new set of Data Access Fees to take account of changes in the costs of enabling access. Data Access applications were closed for 2 months from April 2021, with the new fees taking effect for applications received from June 2021. Access charges continue to be on a cost recovery basis and, during the year, research access income of £2.3m (2020: £2.2m) was received for approved research access requests for data and samples held within the resource.

UK Biobank's Material Transfer Agreement (MTA) was also updated during the year to reflect both the changes in application processes and procedures that UK Biobank has put in place to facilitate use of the data by researchers and the changes in prevailing legislation and regulatory guidance (particularly as regards data protection). The underlying arrangements in the MTA remain as before, namely that researchers are obliged to publish their findings and return their results to UK Biobank and the provisions governing IP rights are effectively unchanged.

B. Projects to enhance UK Biobank data

UK Biobank undertakes a number of enhancement projects funded by restricted funding. This enables additional high value assays and assessments to be undertaken, which provide further data on UK Biobank's participants for health-related research.

Project	Funding	Description	Status
Genetic Analysis	£21.0m	Genetic analysis on samples from all 500,000 participants.	Completed in 2017.
			Data available in the resource.
Biomarker Analysis	£9.4m	Biomarker Analysis on samples from all 500,000 participants.	Completed during 2018.
-			Data available in the resource.
Imaging	£9.6m	Pilot study of the feasibility of performing a large scale imaging study at Stockport facility.	Pilot completed successfully in 2015.
	£33.0m	Establish two further imaging centres in Newcastle and Reading to extend study to 100,000 participants and undertake repeat assessments and biological samples.	In March 2020, the principal and repeat imaging programmes were paused in all sites due to the COVID-19 pandemic. In February 2021,
	£8.5m	Accelerating the imaging study by opening a fourth assessment centre in Bristol.	three sites commenced a COVID-19 repeat imaging study which has completed 2,000
	£2.5m	Repeat imaging of up to 10,000 of the participants.	repeat scans (1,000 cases and matching controls) to inform COVID-19 research. The Bristol clinic opened in January 2020, and was leased to the NHS from November 2020 for an initial period of 12 months.
Whole Genome Sequencing	£30.0m	Vanguard Whole Genome Sequencing study of 50,000 participant samples (note the remainder of the cohort is undergoing Whole Genome Sequencing as a sample access application, as set out in section 2 below).	Sequence generation on 50,000 participants completed in March 2020. The data was made available to researchers in November 2021.
	£3.0m	Vanguard Informatics for the processing and storage of the data generated from the vanguard Whole Genome Sequencing study.	Completed in March 2020.
Research Analysis Platform	£20.0m	Establish a Data Platform with storage capacity and analytical capacity for Whole Genome Sequence Data (and all of the other UK Biobank data) for all 500,000 participants (to support the separately funded Whole Genome Sequencing project and access applications).	The Platform was delivered to consortium members in late 2020, and made available to all researchers on 28 September 2021.
Seroprevalence	£3.0m	Assess the extent of past infection with SARS-CoV-2 (coronavirus) infection and measure antibody persistence over time, in a study of 20,000 UK Biobank participants and their adult children and grandchildren (aged over 18).	Data collection was completed in December 2020 with results released in February 2021. An additional sample will be collected in late 2021 with data release expected in Q1 2022.

Project	Funding	Description	Status
Ethics Advisory	£0.4m	Development of a new ethics advisory service for UK Biobank.	Commenced in November 2020.
COVID-19 Assay	£0.1m	Sample collections and assay in support of the UK Biobank COVID-19 Repeat Imaging Study.	Commenced in February 2021, expected to be completed by the end of 2021.

During the year, UK Biobank secured funding for further enhancements to the resource.

The table below provides a breakdown of the funding provided by funders for each enhancement project.

Enhancement Funding of UK Biobank as at 30 September 2021									
Funder	Genetic Assays	Biochemical Assays	Imaging	Whole Genome Sequencing	Research Analysis Platform	Seroprevalence Study	Ethics Advisory	COVID-19 Assay	Total
	£m	£m	£m	£m	£m	£m	£m	£m	£m
Medical Research Council	10.0	4.0	27.4	33.0	-	-	-	-	74.4
UKRI-MRC	-	-	-	-	-	-	0.2	-	0.2
Wellcome	-	4.0	20.6	-	20.0	-	0.2	-	44.8
Department of Health	10.0	-	-	-	-	-	-	-	10.0
Department of Health and Social Care	-	-	-	-	-	3.0	-	-	3.0
British Heart Foundation	1.0	1.0	3.0	-	-	-	-	-	5.0
Diabetes UK	-	0.4	-	-	-	-	-	-	0.4
Dementias Platform UK	-	-	2.6	-	-	-	-	-	2.6
University of Birmingham	-	-	-	-	-	-	-	0.1	0.1
Total	21.0	9.4	53.6	33.0	20.0	3.0	0.4	0.1	140.5

Enhancement (restricted) funding received during the year ended 30 September 2021 was £9.6m (2020: £14.4m) comprising of the following:

	2021	2020
	£m	£m
Imaging	4.7	5.9
Whole Genome Sequencing vanguard project	-	6.1
Research Analysis Platform	3.1	0.3
Seroprevalence Study	0.7	2.1
Ethics Advisory	0.1	-
COVID-19 Assays	0.1	-
Total	8.7	14.4

In addition, goods and services were donated to the value of £1.7m (2020: £nil). In respect of this funding UK Biobank acquired assets to the value of £0.1m (2020: £0.9m) for these enhancement projects, incurred expenditure on staffing and other costs, excluding depreciation, of £9.0m (2020: £17.9m), and used donated goods and services of £1.7m (2020: £nil).

C. UK Biocentre

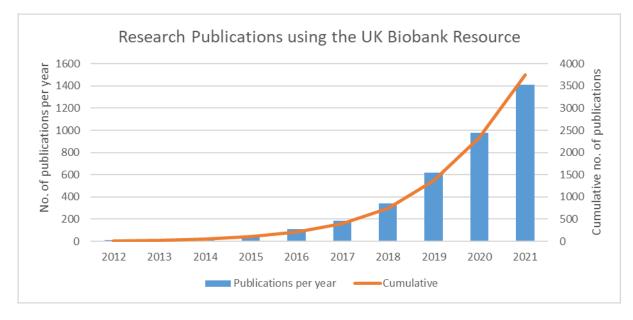
In 2011, UK Biobank established UK Biocentre Limited as a wholly owned trading subsidiary. UK Biocentre Limited uses the expertise and skills initially developed in UK Biobank in order to provide biological sample processing, sample archiving and sample analysis services for studies undertaken by the broader medical research community.

UK Biocentre operates the National Institute for Health Research (NIHR) National Biosample Centre, which was opened in 2014 in Milton Keynes. In March 2020, the Department of Health and Social Care also asked UK Biocentre to provide swab PCR testing as part of the UK's COVID-19 National Testing Programme, which remains ongoing.

2. ACHIEVEMENTS AND PERFORMANCE

Impact of UK Biobank on research

The combination of the breadth and depth of data held on the 500,000 participants within UK Biobank is unparalleled and presents one of the most powerful medical research resources in the world. As a result of access to UK Biobank data, 3,673 research papers have been published on-line as of the 26 October 2021 (2020: 2,492). A list of publications is available on UK Biobank's website https://www.ukbiobank.ac.uk/enable-your-research/publications.



Note the figure above includes 2021 publication data through to 26 October 2021.

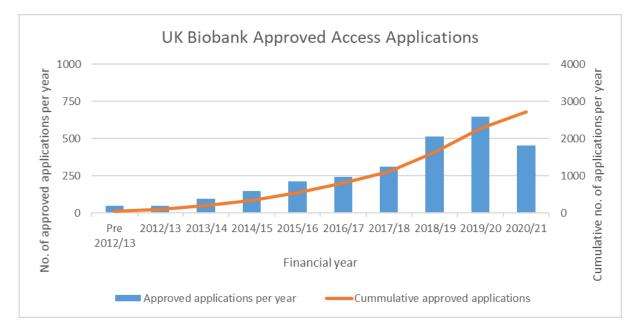
During the Covid-19 pandemic alone, 777 research groups accessed data for Covid-19 research. This generated 260 published papers, which were cited over 3,200 times and attracted over 42,000 mentions on social media, blogs and mainstream news. The resource has also supported 275 patent filings from academic and commercial research users for novel methods, imaging and therapeutics globally. UK Biobank's impact continues to grow exponentially, and these figures provide quantitative evidence of the research it enables, much of which would not otherwise be possible.

Research Data Access applications

UK Biobank's primary objective is to create a resource that furthers medical research opportunities and, in so doing, leads to improvements in population health. The number of requests by researchers to access the resource is an indicator of how much it is used. In the future, as the resource matures and researchers publish an increasingly large number of papers

of increasing importance, the numbers of citations to published research is likely to provide a better indicator of UK Biobank's contributions to improving the health of the public.

The large majority of research applications are for data held within UK Biobank's data resource. Since UK Biobank opened its resource for researchers in April 2012, the number of applications for data has increased, particularly with the release of the genotyping data in 2017. During this financial year, these numbers had increased to 2,727 approved research applications. UK Biobank now has nearly 28,000 approved registered researchers, of which 80% are international researchers based in 86 countries.



Note figures for the 2020/21 year incorporate a 2-month closure of Access following the introduction of the new Access fee structure

During the year, UK Biobank introduced a new set of Data Access Fees to take account of changes in the costs of enabling access. Data Access applications were closed for 2 months from April 2021, with the new fees taking effect for applications received from June 2021. As the above graph shows, there is a reduction in the number of approved research applications received this financial year. This reflects the 2-month closure of the application process in April and May 2021, and the time needed for new applications subsequently received under the new fee structure to be approved (currently 18 weeks from application submission to approval). In the last few months of 2020/21 there has been an increase in applications submitted to UK Biobank, and we anticipate approved applications continuing to increase in 2021/22.

Research Sample Access applications

The criteria for accessing UK Biobank's samples are more stringent, because of their depletable nature. UK Biobank has implemented a sample release policy, which sets out an explicit set of requirements that any proposed sample assay needs to meet: these are set out on UK Biobank's website.

As of 30 September 2021, 10 sample access applications have been completed or are underway (5 from academia; 5 from industry). These applications seek to access samples (blood, saliva, urine, DNA etc.) held by the resource with the purpose of performing research assays. Data created by these research assays are returned to UK Biobank for provision to the wider research community via UK Biobank's research data access procedures.

During the financial year, the following significant research sample access projects were ongoing:

Project	Description	Progress made during the year
Telomere	University of Leicester has undertaken, with funding provided by the Medical Research Council, a study of telomere length in all 500,000 participants.	Following the 9-month exclusivity period, data on over 474,000 participants were made available to the wider research community in March 2021.
Whole Exome sequencing	A consortium comprising Regeneron pharmaceuticals Inc. ('Regeneron') and GlaxoSmithKline completed exome sequencing of 50,000 participant samples in May 2018. Data on these participants were made available to all approved researchers in March 2019, following a 9-month exclusive access period. Following this, Regeneron formed a further consortium (including Abbvie, Alynlam, AstraZeneca, Biogen, Pfizer and Takeda) to fund and conduct exome sequencing of the remaining ~450,000 participant samples.	Sample shipping was completed in late 2020. Exome data on 300,000 participants was made available in September 2021 coincident with the general availability of the UK Biobank Research Access Platform to all researchers. Data on the full 450,000 participants will be released in October 2021.
Metabolomics	Nightingale Health are performing an NMR- metabolomics assay (of ~220 lipids and other circulating metabolites) for all 500,000 participant samples in the UK Biobank cohort.	Sample analysis for phase 1, which included 120,000 samples, was completed in April 2020. This data was made available in March 2021. Sample supply for phase 2 of the project (an additional 200,000 samples) commenced in December 2019, however the COVID-19 pandemic led to a temporary pause in sample supply. Shipments restarted in February 2021 with over 169,000 samples being supplied to date for this phase. Nightingale Health have now committed to phase 3 of the project, which will see the remaining participants analysed during 2022.
Whole Genome Sequencing	Whole Genome Sequencing of the remaining 450,000 participant samples over the course of 3 years is being conducted by the Wellcome Sanger Institute and deCODE genetics on behalf of a Consortium of industry parties comprising of Amgen, AstraZeneca, GlaxoSmithKline and Johnson & Johnson.	The COVID-19 pandemic led to a temporary pause on shipments. These have now resumed and over 429,000 samples have been supplied to the sequence providers so far. Of these, data on over 423,000 participants have been returned to the end of September 2021. Sample supply and downstream sequencing activities are scheduled for completion in 2021 ahead of data processing during 2022. Data on an initial 200,000 participants will be released in November 2021

Project	Description	Progress made during the year
Proteomics	Mutiplex proteomic profiling will be undertaken on a cohort of 55,000 UK Biobank participants.	All 55,000 participant samples were supplied during 2021 for downstream proteomic analysis.
	Initially 1,500 markers will be captured during 2021 before expanding the panel to 3,000 markers during 2022.	Data for the 1,500 analyte panel is scheduled to be delivered in December 2021 ahead o expansion of the panel to 3,000 markers during
	The assay is being performed by Olink Proteomics on behalf of a consortium of industry parties comprising of Amgen, AstraZeneca, Biogen, BMS, Calico, Genentech, GlaxoSmithKline, Janssen, Novo Nordisk, Pfizer, Regeneron and Takeda.	2022.

All of the data resulting from the above sample access projects will be returned to UK Biobank for distribution to medical researchers under UK Biobank's access protocols after an agreed exclusivity period for research on the assay data combined with other UK Biobank data. The UK Biobank Access Sub-Committee has determined that a standard period of 9 months will apply for all research sample access and enhancement applications that request an exclusivity period. These data will constitute significant enhancements to the data resource.

Linkage to healthcare records

Hospital, cancer and death records

UK Biobank now has complete participant coverage in respect of hospital admission data, death and cancer records. These linked records provide data on health conditions and operations/procedures of the participants, both retrospectively (i.e. before recruitment) and prospectively (i.e. after recruitment). These data are made available (on a de-identified basis) to researchers as part of UK Biobank's data resource.

COVID-19 research

Throughout the COVID-19 pandemic, UKB has made available rapid and regular updates of linked healthcare records to facilitate COVID-19 research, including regular releases of death data, diagnostic PCR test data, hospital inpatient and critical care data. The Secretary of State also extended a COPI notice requiring GP practices in England that use the two main IT systems to release primary care data on UK Biobank participants until 31 March 2022 for the sole purpose of COVID-19 related research. As such, primary care data on approximately 190,000 participants (obtained from The Phoenix Partnership (TPP)) was released in August 2020, and data on an additional 250,000 participants (obtained from Egton Medical Systems (EMIS Health)) was released in October 2020, and was updated regularly during the financial year. These data are made available to UK Biobank researchers who have approval to use the resource and are undertaking COVID-19 related research only.

Primary healthcare records for general research

Research access to primary care health records for participants living in England remains a challenging process despite receiving constructive advice and input from the Information Commissioner's Office ('ICO') and the Royal College of General Practitioners. UK Biobank is supporting NHS Digital in their national programme to extract primary care records for the purposes of research and healthcare planning (General Practice Data for Planning and Research), once certain criteria have been met.

Participant withdrawal

UK Biobank's success relies upon the continued support of its participants. Were large numbers to withdraw, there would be a significant impact on the breadth of UK Biobank's data resource, and therefore its likely impact on medical research opportunities.

During the year, 89 participants chose to withdraw from the project (2020: 39 withdrawals) bringing the total to date to 1,127. This represents only 0.2% of the participants and reflects the open and clear communication provided to participants on an ongoing basis by UK Biobank, and the high level of understanding of the participants of the benefits their participation can bring to health research. UK Biobank remains incredibly grateful for the continued altruistic support provided by its dedicated participants.

Enhancement projects

Research Analysis Platform

To support the whole genome sequencing study, in October 2019, Wellcome awarded UK Biobank a grant of £20m for a managed informatics platform that will allow researchers to access, store and analyse UK Biobank data in-situ, without the need to download these data to their own environments. With the increasing complexity and scale of data being generated (largely by sample access projects), this capability is critical to maximise utilisation of the data held within UK Biobank's resource and to democratise access to those researchers who do not have access to large local computing services (e.g., researchers from low and middle-income countries).

Following a competitive tender, conducted in accordance with the public procurement rules, DNAnexus were awarded the contract for the platform in June 2020. The platform was made available for consortium partners in late 2020, and became available to all researchers in September 2021. The platform is being delivered using cloud infrastructure provided by Amazon Web Services (AWS) – using the London AWS node - who are also contributing up to \$500,000 of research credits each year for use by early career researchers and those from low and middle-income countries.

Imaging

The study opened a fourth centre in Bristol in January 2020 to increase scanning capacity (when the sites are running at full capacity, 20,000 imaging assessment visits can be completed annually). From commencement of this study to March 2020, there were 48,900 imaging assessment visits.

Repeat imaging assessments commenced during 2018 on up to 10,000 participants who have already taken part in the Imaging project with 3,200 repeat assessment visits undertaken prior to March 2020.

In March 2020, due to the uncertainty and concerns about COVID-19, UK Biobank took the decision to close its imaging centres temporarily in Bristol, Reading, Cheadle and Newcastle. During the financial year, the sites in Reading, Cheadle and Newcastle undertook a SARS-CoV-2 repeat imaging study of approximately 1,000 seropositive cases and 1,000 matched controls. This study started in early 2021 and continued to September 2021, at which point the main imaging programme restarted.

As the Bristol site had only scanned a small number of participants since opening in early 2020, it was not able to contribute to the SARS-CoV-2 repeat imaging study. In late November 2020, the site was leased and staff seconded to the NHS for an initial 12-month period, to enhance its diagnostic imaging capacity during the COVID-19 pandemic. We expect the site to restart the main imaging programme in April 2022.

Seroprevalence

In April 2020, funding of £3m was awarded by the Department of Health and Social Care to undertake a SARS-CoV-2 seroprevalence study in the general population. This was designed to assess the extent of previous infection of SARS-CoV-2 across different population characteristics (e.g., age, region, ethnic group) and to determine antibody persistence over time. A sub cohort of 20,000 of UK Biobank's participants and their adult children and grandchildren (aged over 18) have taken part in this study and provided monthly blood samples for six months (June - November 2020).

The 6-month study was completed in December 2020, with results released in February 2021. These showed that seroprevalence increased from 6.6% in May/June 2020 to 8.8% in November/December 2020 and that the vast majority (88%) of those who were infected at the start of the study retained detectable levels of antibodies at least 6 months later. We have received additional support from Department of Health and Social Care to collect a final sample in November-December 2021 to assess the persistence of antibodies over a 12-18 month period following infection. We anticipate

releasing the data to researchers in March 2022 and will publish the results on antibody persistence and risk factors for infection.

Ethics Advisory

Wellcome and UKRI-MRC awarded funding to UK Biobank of £0.40m for "Developing a new ethics advisory service for UK Biobank". This study commenced in November 2020, with a research fellow initially provided by the University of Southampton working on this study, and which will subsequently be provided by the University of Oxford with the support of Professor Anneke Lucassen.

COVID-19 Assay

This study required the collection of an additional sample as part of the UK Biobank COVID-19 (SARS-CoV-2) Repeat Imaging Study for cell line isolation undertaken by the University of Birmingham. The award was for £0.04m for the costs of sample collection that concluded in late 2021. Assays of these samples will be undertaken either as part of a subsequent enhancement or sample access request.

UK Biocentre Limited

During the year UK Biocentre has delivered services to researchers across a growing number of organisations, most significantly for research groups at the University of Cambridge, the University of Oxford, and NIHR BioResource, as well as services provided to the Department of Health and Social Care (as a major contributor towards the government's COVID-19 testing programme).

Financial review

The consolidated financial position of the Group at the 30 September 2021 is shown in the Consolidated Balance Sheet (on page 33) which shows total Charity funds of £11.5m (2020: £12.3m); £6.1m (2020: £4.2m) held as unrestricted funds and £5.4m (2020: £8.2m) as restricted funds. Of these funds, £7.7m (2020: £10.6m) is held as fixed assets.

The Consolidated Statement of Financial Activities (on page 31) shows expenditure during the year, before taxation of £34.7m (2020: £31.5m) set against funding and other income received of £35.1m (2020: £27.5m).

Detailed financial information relating specifically to UK Biocentre is included in the Consolidated Financial Statements at Note 14: Investments.

Controls over expenditure are paramount to UK Biobank, due to the restrictions on available funds. There is very significant potential to develop UK Biobank's resource further and so carefully managing expenditure and prioritising appropriately the activities undertaken are critical to maximising the value of the resource. In the year, UK Biobank has reported expenditure (including the purchase of fixed assets but excluding depreciation and the increase in the USS pension deficit provision of £4.5m (2020: £0.1m)) of £25.0m (2020: £27.0m). UK Biobank monitors expenditure via monthly management summaries and a formal quarterly reforecast and reporting process. Responsibility over expenditure is delegated to project and department managers who manage their projects/departments accordingly.

UK Biocentre Limited similarly monitors expenditure closely and, in addition, carefully reviews customer projects against budget expectations as well as revenue levels. Regular meetings assess the performance of the projects and ensure customer expectations are being met, with issues highlighted and, where appropriate, elevated for management review. This control framework underpins the delivery of projects at the standard expected while managing the income and expenditure for individual projects, and across the company as a whole.

During the financial year, UK Biocentre achieved income for the year of £9.5m (2020: £4.0m) which is an increase of 138% (2020: decrease of 7%) on the previous year's income. The increased year on year performance reflects a shift in the mix of services provided to customers during the year, as UK Biocentre delivered COVID-19 related services under the National Testing Programme. This activity includes testing fees (recognised in turnover), with most of the activity recognised in other operating income and expenditure (in line with their cost recovery nature). Its profit before taxation for the year of £6.6m (2020: £0.4m) is retained within the company to support its ongoing operations and improve service offerings provided to biomedical researchers.

Plans for future periods

The next financial year will see the following activities undertaken:

Project	Future plans
Imaging	Recommence the imaging project (following completion of the SARS-CoV-2 repeat imaging study in September 2021) and progressively increase participant numbers until the sites are operating at full capacity.
Research Analysis Platform	Continue to refine the platform in response to researcher feedback, and make further data releases available (including whole exome and whole genome sequence data, which are exclusively available on the platform).
Whole Genome Sequencing	Complete the supply of the remaining participant samples, and downstream sequencing activities, during the financial year.
Whole Exome Sequencing	Issue a final data release containing the resulting exome data on the full cohort.
COVID-19	Collect a final sample from Seroprevalence project participants to assess the persistence of antibodies over a 12-18 month period following infection
	Release the data on a SARS-CoV-2 repeat imaging study of approximately 1,000 seropositive cases and 1,000 matched controls, which was completed during 2021.
	Release the data on a study completed during the financial year that assessed the seroprevalence of previous infection with SARS-CoV-2 for the entire cohort (using a home-based self-test antibody kit).
Data linkages	Make further releases of linked health care data – including death, cancer, hospital admissions data – and for COVID-19 research, primary care data and diagnostic test data – available to researchers who have approval to use the resource.
	Continue to explore solutions to secure access to linked primary care data for the purposes of general research, following expiry of the provisions of the COPI notices in March 2022.
Funding	Receive confirmation of the outcome of our application to funders to secure continued core funding ahead of expiry of the current funding in June 2022.
Proteomics	Prepare to release data on multiplex proteomic profiling of 55,000 participant plasma samples (following the expiry of exclusivity periods in late 2022).

3. PRINCIPAL RISKS AND UNCERTAINTIES

The principal concern of UK Biobank is to maintain its resource in a way that is secure, protects the confidentiality of the participants and maintains the data and samples in a form that is most useful to the scientific community.

The key risks for UK Biobank and UK Biocentre are outlined below. These risks and the actions taken to manage them are reviewed by each organisation's Audit and Risk Committee on a quarterly basis.

Risk	Management
Samples are stored appropriately and	• Use of back-up supplies and on-site power generation capabilities to protect against loss of electric or nitrogen supply.
processed accurately	Storage of samples in multiple locations.
	• Standard operating procedures are documented and employees trained to ensure that protocols are followed.
Data is stored securely	Protocols to back up and secure data.
and in compliance with data protection	• Independent audits and 'penetration' tests to assess data security risks.
regulations	• Data are made available to researchers in reverse-anonymised form (but only UK Biobank holds the technical means to be able to reverse the anonymization).
	• UK Biobank is certified with (and operates to) the ISO 27001:2013 information security standard.
The value of the UK	Non-preferential access is provided to samples and data.
Biobank resource is maximised	• UK Biobank works closely with its current and potential funders to secure support for projects that enhance the value of the resource.
	• Continuing to work with the NHS and wider stakeholders to secure long-term ongoing access to primary care data at scale.
Funding or income is sufficient to cover costs	• Budgets are agreed each financial year and are approved by each organisation's Board.
	 Income and expenditure is reviewed against budget and significant variances investigated to enable action to be taken where necessary.
	Income and expenditure is reforecast each quarter.
	• UK Biobank develops projections of the funding needed to achieve its objectives, which are submitted as part of the quinquennial funding application. UK Biobank is awaiting the outcome of its application for core funding for the 2022-2027 period.
	• UK Biobank works with funders to identify appropriate funding routes for investment in infrastructure.
UK Biobank's pension scheme deficit and	• A deficit recovery plan is in place with increased contribution rates. These rates are reflected within our financial forecasts.
contributions are affordable	Regular valuations are undertaken and inform future contribution rates.
	• A consultation is underway to consider amending the benefits of the pension scheme to enable contribution rates to remain at similar levels.
Managing the implications of the	 Assessments continue to be undertaken of the risks to staff health and safety and standard operating procedures are updated to mitigate these.
COVID-19 pandemic on our people and our projects	 UK Biobank paused its imaging programme in early 2020 following the COVID-19 pandemic and leased its Bristol imaging site to the NHS during the financial year. The project is closely monitored to maximise the numbers of scans achievable within the project budget.

Risk	Management
Compliance with human tissue regulations	• UK Biobank and UK Biocentre are licensed by the Human Tissue Authority (HTA) and are required to follow strict protocols to ensure that all biological samples are managed appropriately.
	• Development of standard operating procedures and training of staff to ensure compliance with HTA licencing and other regulatory requirements.
Recruiting and retaining the people and skills needed to achieve our	• Training programmes are in place to encourage skill development and improve retention
objectives	Remuneration is regularly benchmarked to ensure it remains competitive
	• As part of its quinquennial funding application, UK Biobank seeks to secure sufficient funding for the resources needed to achieve its objectives.
Reputational risk	• Regular communications with UK Biobank participants, whose goodwill is vital to enable the research community to have access to data collected from or about them.
	• Application of the highest possible ethical standards to all activities.
	• UK Biocentre Limited manages this risk by maintaining the quality of its work as its core objective, and through its governance (which includes a separate Board responsible for risk management).

4. EMPLOYEE AND ENVIRONMENTAL MATTERS

4.1. Employee numbers and remuneration

UK Biobank and UK Biocentre have established policies in place covering the recruitment, training, health, safety and welfare of its people.

The Group seeks to ensure equal opportunities are available for all existing and potential staff and have procedures in place to support disabled staff or staff requiring particular adjustments in order to enable them to perform their roles successfully. In addition, the organisation regularly reviews remuneration and benefits offered to employees to ensure that these remain competitive and in line with market trends.

As at the end of the financial year, the Group employed 402^1 staff (2020: 240)². Of these, 93 (2020: 76) were employed by UK Biobank as part of the Core and the Research Analysis Platform Projects, with a further 84 (2020: 91) employed on UK Biobank's Imaging project and 225 (2020: 73) employed within UK Biocentre.

UK Biobank has undertaken a review of the gender pay gap of its employees.³ UK Biobank has more female employees in junior roles within the organisation relative to male employees, and more male employees on higher salaries in senior roles within the organisation relative to female employees (as shown in the table below). UK Biobank splits all employees into grades within the organisation, with employees in identical or equivalent roles with similar responsibilities levels allocated to grades A to H. An analysis of gender pay differences within each grade shows that two bands have no gender pay gap, three bands have a gap where females are paid more than males, and two bands have a gap where males are paid more than females. Grade F continues to reflect the ongoing higher salaries in the market place for IT and specialist Laboratory Information Management System roles that we saw law year. It is still the case that a high percentage of males perform

¹ Excluding the 10 part-time non-executive Directors of the Charity reported on under section 4.3 of the Strategic Report.

² Excluding the 10 part-time non-executive Directors of the Charity reported on under section 4.3 of the Strategic Report.

³ This relates only to individuals employed directly by the Charity (excluding non-executive Directors), and not those individuals who are either seconded or contracted to work with the Charity from other organisations or who are employed by UK Biocentre Limited.

these roles in this area. There are no female employees employed directly in the most senior (H) band (one female is seconded to UK Biobank by the University of Oxford).

Overall, the figures reflect that no individual grade within the organisation shows a significant discrepancy in pay between male and female employees and that the gender pay gap is related to relative seniority/specialism of the roles performed by male and female employees.

Employee Grade	Average Salary (£)	Total Male Employees	Total Female Employees	Gender pay gap
A (Most Junior)	22,753	6	3	There is no gender pay gap in this category.
В	22,532	6	25	Female employees paid 8% more than males in this bracket. This is a change from last year where there was no difference in pay between the two genders.
С	27,189	6	16	Female employees paid, on average, 10% more than male employees, which is an increase of 7% from last year.
D	31,234	20	33	Male employees paid, on average, 7% more than female employees, which is an increase from last year of 4%.
E	40,640	14	17	Female employees paid on average 3% more than male employees in this category. This is a change from last year where male employees were paid on average 7% more than female employees.
F	52,905	10	11	Male employees paid, on average, 18% more than female employee, this is an increase of 1% from last year.
G	65,918	5	8	There is no gender pay difference in this category, which is a change from last year when female employees were paid on average 6% more than male employees.
H (Most Senior)	132,280	5 (+1)	0(+1)	No directly employed female employees in this salary band ⁴ .
Average	38,087	Total 72	113	

UK Biobank will keep the gender pay gap under review and will continue to seek to reduce it, with the ultimate aim of removing it altogether, over the coming years.

UK Biobank reviews the salaries of its staff regularly to ensure that remuneration paid is appropriate to attract and retain skilled and experienced people and that remuneration is competitive with rates applicable in the academic, charitable and private sectors. Every three years, roles are independently benchmarked using external advisors to support this.

Further details on employee numbers and remuneration spend are included in the financial statements at Note 9: Staff Numbers and Costs.

⁴ Employee Grade H is the Executive Management Team. This team includes one female and two males who are not employed by the Charity, but are seconded to the Charity from the University of Oxford (who set their salaries, which are therefore excluded from the gender pay gap review).

4.2. Diversity and inclusion

UK Biobank has policies and procedures in place to ensure that all employees are treated equally. We continue to ensure that all recruitment follows a structured approach to minimise the risk of any unintentional or intentional bias in selection. This includes the use of skills based assessment tasks as part of the interview process and pre-determined interview questions adopted alongside a defined response grading criteria. We are in the process of strengthening our recruitment processes by the inclusion of an application form to reduce any unconscious bias due to selecting candidates by CV.

UK Biobank has extended flexible working across all grades and is actively working to support all employees in creating a better work-life balance. The full impact of this has not been able to be measured due to a significant proportion of staff having to work remotely due to the COVID-19 pandemic over the past 18 months. As we start to return to spend more of their time back on-site, UK Biobank is ensuring staff can continue to benefit from flexibility to support them achieving a work-life balance.

		Male	Female	Other	
Headcount		72	113	1	
%		38.7%	60.7%	0.6%	
	White	Asian	Black	Other	
Headcount	151	22	8	5	
%	81.2%	11.8%	4.3%	2.7%	

The tables below provide further information on the gender and ethnicity of UK Biobank's workforce.

UK Biobank strives to ensure diversity within the study team that delivers the resource, where 61% of staff are female, and 19% of staff are of Black, Asian or 'Other' ethnicity. When compared to ethnicity data from the 2011 census data, UK Biobank compares favourably, both within our primary employee recruitment area in the North West (which in the census reported 10% Asian, Black, Mixed/Multiple and Other ethnic groups) and across England and Wales as a whole (14%).

At Board level, 30% of members are female, with gender diversity in individual committees varying depending on the distribution of Board members across those committees. Within the International Scientific Advisory Board, we are aiming for a broader global representation, to reflect our ambitions to democratise access and increase applications from low and middle-income countries.

A further review against the 2021 Census will take place once this is available during 2022 to help inform and shape the equality, diversity and inclusion action plans for the organisation.

4.3. Director and executive remuneration

Until March 2020, and with the approval of the Charity Commission, it was UK Biobank's policy to pay certain Non-Executive Directors a fee in recognition of their role and responsibilities. Provisional sums of £116,000 were recognised in the financial statements during the period from April 2018 to March 2020 for six Directors to receive remuneration, as detailed in Note 11 to the financial statements. However, due to a provision of UK Biobank's constitution which placed a limit of 50% paid (as compared to unpaid) Directors, it has not been possible to pay these amounts. These provisional sums will not be paid and they have been credited to the Statement of Financial Activities during the year. With effect from March 2020, UK Biobank changed its policy in this regard and for the foreseeable future, none of UK Biobank's Directors will be remunerated. In addition, none of the Directors of UK Biobank receive any benefits. At the end of the financial year UK Biobank's Board of Directors included seven male Directors and three female Directors.

For UK Biobank to achieve its objectives, it must attract and retain high-performing senior leadership. The Remuneration Committee sets the remuneration of the Executive Management Team following benchmarking of each position by external advisors. Details of their salaries are disclosed in the financial statements at Note 10: Key Management Personnel.

4.4. Pensions

UK Biobank is a member of the Universities Superannuation Scheme ('USS'). The USS is a large defined benefit pension scheme, which provides a pre-determined level of benefit to members of the scheme based on prescribed contributions made by both the employee and the employer. An actuarial valuation of the USS scheme was completed during the financial year (the "2020 Valuation") which identified a deficit of £14.1bn to £18.4bn in the scheme as at March 2020. Following the conclusion of the 2020 Valuation and in order to address the deficit, two sets of contribution rates were proposed on 30th September 2021. The set of rates is contingent on the outcome of a consultation on changes to the benefits of the scheme, ahead of a decision on future benefits structure by February 2022. On 1 October 2021, contribution rates will remain unchanged from 1 April 2022. Otherwise, contribution rates will increase progressively (in six-monthly increments), rising to 57% by 1 October 2025.

UK Biobank, by being a member of the scheme, is exposed to the deficit within the scheme in the same way that all other member institutions of the USS are exposed. UK Biobank provides for the present value of future contributions it must make under the terms of a recovery plan agreed by the scheme's trustees on 30 September 2021. The provision at 30 September 2021 is £6.2m (2020: £1.8m) (see Note 19 of the financial statements). If the scheme benefits are not amended as proposed, then the provision required in these financial statements under the alternate set of deficit contributions would be £10.6m. Further valuations will be undertaken in future years, which may result in future contributions increasing further to ensure that the scheme is able to meet its future obligations (see Note 25 of the financial statements).

4.5. Environmental Matters

The Group recognises that it has a responsibility to manage the impact that its operations have on the environment both now and in the future. UK Biobank is working with our principal funders and will take account of UKRI's environmental principles and commitments. This includes the ambition of reaching 'net zero' carbon emissions by 2040.

During the financial year, UK Biobank has focussed on information gathering in respect of energy, waste and water to establish a baseline and inform a new 2022-27 strategy. Over the pandemic period, a significant proportion of our staff were encouraged and enabled to work from home. With a reduction of on-site activity, our energy consumption reduced on average by 20% (2021 vs. 2020). Our water usage reduced on average by 15%. We will continue to target energy, waste and water reduction in 2022.

APPRECIATIONS

The Directors acknowledge the role of UK Biobank's main funders, the Medical Research Council and Wellcome (as Trustee of the Wellcome Trust) and also the Department of Health and Social Care, British Heart Foundation, Cancer Research UK and the National Institute for Health Research for their ongoing (and generous) funding of the resource and the various enhancements described. The scale of their long-term commitment is directly reflected in these consolidated financial statements. In addition, UK Biobank remains indebted to the extensive network of advisors in the academic community, both within the UK and internationally, who give their time and expertise freely. The Directors also acknowledge the important role of the Group's collaborators who supply key services at the Universities of Oxford and Cardiff. Most importantly, UK Biobank wishes to acknowledge the altruism of the participants and to thank them for their ongoing contributions to this unique resource.

Approved by the Board of Directors on 10 December 2021 and signed on its behalf by:

Kussa/

Professor the Lord Kakkar, Chair

15 December 2021

The Directors have pleasure in presenting their report together with the consolidated financial statements of the charitable company, UK Biobank Limited ('UK Biobank'), for the year ended 30 September 2021.

1. DIRECTORS AND TRUSTEES

The Directors of UK Biobank Limited are its Trustees for the purpose of charity law and throughout this report are collectively referred to as the Directors. The Directors who served during the year are listed in the Legal and Administrative information on page 4.

None of the Directors who held office at the end of the period had any disclosable interest in the shares of UK Biobank Limited or its subsidiary undertaking, UK Biocentre Limited.

2. STRUCTURE, GOVERNANCE AND MANAGEMENT

2.1. Status

UK Biobank is a charity operating as a company limited by guarantee. It was incorporated in England and Wales on 28 November 2003 and registered as a charity in England and Wales on 30 December 2003 and in Scotland on 5 February 2008.

UK Biobank is established under a Memorandum of Association setting out its objects and powers and is governed under its Memorandum and Articles of Association. The two Members of the Charity are the Medical Research Council and The Wellcome Trust Limited (as Trustee of The Wellcome Trust) ("Wellcome").

2.2. Recruitment of Directors

Under UK Biobank's Articles, Directors may be appointed either by the Members or by the Board (with agreement from the Members). Under the terms of a contract entered into by UK Biobank, the Members are entitled to appoint one Director each.

2.3. Engagement with Directors

UK Biobank uses an online portal to distribute Board papers to Directors in a secure and timely manner. The portal also contains a number of key resources for Directors such as the constitutional documents, previous year's annual report and accounts, the current business plan, and the scientific protocol for the creation of the UK Biobank resource. These key resources are made available (together with previous Board packs and minutes) to new Directors as part of their induction.

In addition, all new Directors receive a briefing on their legal obligations under charity and company law and, if necessary, on the background and aims of UK Biobank, as well as meeting with the Chair, other Directors, the Chief Executive and the General Counsel. Training is available to all Directors.

2.4. Organisational structure

The Directors are responsible for the overall management and operation of UK Biobank with the day to day running being delegated to Professor Sir Rory Collins, the Chief Executive and Principal Investigator. He is supported by an executive management team, which contains the appropriate range of skills to ensure the competent management of UK Biobank. The Directors meet at least four times a year.

UK Biobank has three Board Committees that meet on a regular basis:

- The Audit and Risk Committee, was chaired during the year by Mr Jonathan Tross and following his resignation, will be chaired by Dominic Dodd. The committee is responsible for advising the Board on financial and accounting issues, the relationship with external auditors and risk assessment.
- The Access Sub-Committee, which was chaired during the year by Professor Martin Bobrow, is responsible for advising the Board on resource access applications received from the research community.
- The Ethics Advisory Committee, which was chaired during the year by Professor Anneke Lucassen. This committee advises the Board on ethical considerations in respect of UK Biobank.

UK Biobank also has Remuneration and Nominations Committees which meet as and when required.

The Directors are included within a Directors and Officers liability insurance policy purchased by UK Biobank at an annual premium of £12,293 (2020: £8,361).

2.5. Relationships with other organisations

UK Biobank has arrangements with employees of the following institutions who constitute the membership of UK Biobank's Strategic Oversight Committee. No remuneration is paid in respect of this membership:

- European Bioinformatics Institute
- Health Data Research UK
- Imperial College London
- London School of Hygiene and Tropical Medicine
- University of Bristol
- University of Cambridge
- University of Glasgow
- University of Manchester
- University of Oxford
- University of Swansea
- Wellcome Sanger Institute

In addition, institutions with which UK Biobank has significant relationships include:

- Cardiff University, which provides the Participant Resource Centre.
- The University of Oxford, which provides epidemiological expertise, IT services, data management, storage and enhancements support.
- University of Southampton, which provided a research fellow during the year to develop the Ethics Advisory service.

These services are provided under agreements with UK Biobank. Directors or senior management who have involvement with these institutions are as follows:

- Professor Sir Rory Collins, the Chief Executive and Principal Investigator, who is an employee of the University of Oxford and Head of the Nuffield Department of Population Health and BHF Professor of Medicine and Epidemiology.
- Professor Naomi Allen, the Chief Scientist, is an employee of the University of Oxford at the Nuffield Department of Population Health as Professor in Epidemiology.
- Dr Alan Young, who is Systems Architect, and is an employee of the University of Oxford at the Nuffield Department of Population Health as Director of Information Science.
- Jonathan Sellors, who is a Senior Fellow at the Nuffield Department of Population Health at the University of Oxford.
- Professor Anneke Lucassen, who was Professor of Clinical Genetics within Medicine at the University of Southampton, and was appointed Director of the Centre for Personalised Medicine at the University of Oxford in August 2021.

Full details of Related Party Transactions are included at Note 24 of the financial statements.

3. OBJECTIVE AND ACTIVITY

3.1. Objects

UK Biobank's main objects, as set out in UK Biobank's Memorandum of Association, are to protect, preserve and advance the health and welfare of human beings and to advance and promote knowledge and education.

3.2. Aims, objective and strategy to achieve the Charity's objective

UK Biobank's principal objective is to establish and promote a resource for research with the aim of improving the prevention, diagnosis and treatment of illness and promoting health throughout society for public benefit.

3.3. Public benefit

The Directors have considered the Charity Commission's general guidance on public benefit and have complied with the duty in section 17 of the Charities Act 2011.

4. GOING CONCERN

4.1. UK Biobank Limited

The financial statements have been prepared on a going concern basis, which the Directors consider to be appropriate for the following reasons.

UK Biobank is funded on a five yearly funding cycle, and has committed funding in place to cover its core operations until 30 June 2022. UK Biobank received £7.0m of core funding in 2020-21. In November 2020, the process started for UK Biobank to apply for a renewed package of core funding for the 1 July 2022 to 30 June 2027 period. The application process progressed as planned during the financial year and its outcome is expected in Spring 2022.

The application process will determine whether UK Biobank will receive core funding for this period, and if so, the amount to be provided. The timing of this process means that its outcome, at the date of signing these financial statements, is uncertain. Nonetheless, the funding application has highlighted the increasing numbers of researcher applications made to access the resource (as also outlined in the Achievements and Performance section of the strategic report), and the strong record UK Biobank has of leveraging significant external investment to enhance the richness of the data it holds. The funders have received positive recommendations from the Review Panel that support for UK Biobank should be continued, so provision of future funding is likely. The final financial level of that support will not however be confirmed until April 2022.

Beyond core funding, UK Biobank also benefits from Access income, with income in this financial year as set out below:

- Sample Access Fees of £1.2m were earned during the year (£1.0m in 2019/20). Projects are priced on a cost recovery basis and the main implications of the COVID-19 pandemic have been to extend sample delivery timeframes (as outlined in section 2 above), which led to a re-profiling of this income, offset by a change in the timing of the corresponding costs. We engage regularly with researchers to inform them of project progress including any changes in timeframes.
- UK Biobank earned £1.1m in Data Access Fees this year (£1.2m in 2019). Data Access applications were closed in April
 and May 2021 to enable a new fee structure to be introduced. We anticipate an increase in fee income in future years
 due to the changes in fees and through increased demand for access to the data (following the forthcoming release of
 sequence data to researchers via the Research Analysis Platform).

Finally, as outlined on page 13, the COVID-19 pandemic led to the pausing of the imaging programme in March 2020, which will reduce the numbers of participants that can be scanned within the existing funding. Funders agreed to reallocate £4m of existing project funds to support the SARS-CoV-2 repeat imaging programme, and 2,000 participants were scanned as part of this initiative during the financial year. The imaging programme restarted in the Cheadle, Newcastle and Reading clinics during September 2021, and is expected to recommence in the Bristol site in April 2022 (once the lease to the NHS concludes).

The Directors consider it highly likely that sufficient funding will be provided to enable UK Biobank to continue to operate for the foreseeable future, and therefore, the financial statements are prepared under the going concern basis.

4.2. UK Biocentre Limited

With net assets of £4,860,842 on 30 September 2021, UK Biocentre's financial statements have been prepared on a going concern basis which its Directors consider to be appropriate for the following reasons.

UK Biocentre's Directors prepared cash flow forecasts for the periods to September 2025 which indicate that, taking account of reasonably possible downsides, UK Biocentre will have sufficient funds for the going concern period. Scenarios have been developed and assessed, that consider the effect of COVID-19 testing and other growth in business activity on cashflow. These scenarios show that UK Biocentre, as a minimum, can maintain operations and cash flow to continue to meet its liabilities for at least 12 months from the date of approval of the financial statements.

UK Biocentre's Directors have considered the risks and opportunities presented by the impact of the COVID-19 pandemic. This assessment has considered the uncertainties in projecting revenue streams beyond mid-2022, given that the COVID-19 virus testing is currently contracted to run until the end of March 2022. Forecasts show that in the event of a cessation of COVID testing in March 2022 and only a limited return in business-as-usual activities (i.e. a severe but plausible downside scenario), there is a downward cash trajectory from May 2022, however this scenario still demonstrates the organisation's ability to meet its liabilities as they fall due for at least 12 months from the date of approval of the financial statements. In addition, UK Biocentre's Directors consider the risk of this scenario arising to be highly unlikely based on the points made below.

UK Biocentre's Directors believe that the forecast downside cash flow scenario is mitigated by opportunities beyond 2022. The pandemic is expected to generate new research, testing and storage requirements that could increase the demand for the services provided by the Company in the future, and the Directors are confident that some of these increases in activity will be agreed before March 2022. UK Biocentre and the National Institute for Health Research (NIHR) are considering options to optimise the future use of the facility, following completion of the novation of debts to NIHR. Based on present activities and the key importance of the Company in responding to the pandemic, the Directors are confident the public and research value of the facility and its activities will continue to be recognised as part of this review, and they are therefore confident of the Company's value and existence beyond 2022.

Consequently, UK Biocentre's Directors are confident that the Company 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 its financial statements and consequently have prepared the financial statements on a going concern basis.

5. AUDIT INFORMATION

The Directors who were in office at the date of approval of these financial statements have confirmed that, as far as they can reasonably ensure, all relevant audit information has been provided to the Group's auditors; and the Directors have taken all the steps that they ought to have taken as Directors in order to make themselves aware of any relevant audit information and to establish that the Group's auditors are aware of that information.

6. INVESTMENTS

UK Biobank made no investments during the year.

7. RESERVES POLICY

UK Biobank draws down monies from the Members as required, in line with budgets reviewed both by the Board of Directors and by the Members. In these circumstances, there is no requirement for UK Biobank to maintain any free reserves. However, the Directors are satisfied that there are sufficient arrangements for the provision of funding for the Charity to continue to operate for the foreseeable future. This is based on the requirement for UK Biobank to present budgets which reflect not only anticipated spend for the coming twelve months but in addition provide a detailed forecast to the end of the current funding period so that comfort can be gained that all anticipated costs are manageable within agreed funding.

8. AUDITORS

KPMG LLP are the auditors of the Group and have expressed their willingness to continue in this role.

Approved by the Board of Directors on 10 December 2021 and signed on its behalf by:

Kahn

Professor the Lord Kakkar, Chair

15 December 2021

STATEMENT OF DIRECTORS' RESPONSIBILITIES

The Directors are responsible for preparing the Directors Report and the group and parent charitable company's financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law they are required to prepare the group and parent charitable company's financial statements in accordance with UK Accounting Standards and applicable law (UK Generally Accepted Accounting Practice), including FRS 102 *The Financial Reporting Standard applicable in the UK and Republic of Ireland*.

Under company law the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the group and parent charitable company and of the group's income and expenditure for that period. In preparing each of the group and parent charitable company financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards and the Statement of Recommended Practice have been followed, subject to any material departures disclosed and explained in the financial statements;
- assess the group's and the parent charitable company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and
- use the going concern basis of accounting unless they either intend to liquidate the group or the parent charitable company or to cease operations, or have no realistic alternative but to do so.

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

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

Kussa/

Professor the Lord Kakkar Chair

15 December 2021

Opinion

We have audited the financial statements of UK Biobank Limited ("the charitable company") for the year ended 30 September 2021 which comprise the Group and Parent Charitable Company Statements of financial activities, the Group and Parent Charitable Company Cash Flow Statements and related notes, including the accounting policies in Note 2.

In our opinion the financial statements:

- give a true and fair view of the state of the group's and of the charitable company's affairs as at 30 September 2021 and of the group's incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with UK accounting standards, including FRS 102 *The Financial Reporting Standard applicable in the UK and Republic of Ireland*; and
- have been prepared in accordance with the requirements of the Companies Act 2006, the Charities and Trustee Investment (Scotland) Act 2005, and Regulation 8 of the Charities Accounts (Scotland) Regulations 2006 (as amended).

Basis for opinion

We have been appointed as auditor under section 44 (1) (c) of the Charities and Trustee Investment (Scotland) Act 2005 and under the Companies Act 2006 and report in accordance with regulations made under those Acts.

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

Going concern

The Directors have prepared the financial statements on the going concern basis as they do not intend to liquidate the group or the charitable company or to cease their operations, and as they have concluded that the group and the charitable company's financial position means that this is realistic.

In our evaluation of the Directors conclusions, we considered the inherent risks to the group's business model and analysed how those risks might affect the group and charitable company's financial resources or ability to continue operations over the going concern period.

Our conclusions based on this work:

• we consider that the Directors use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

However, as we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgments that were reasonable at the time they were made, the above conclusions are not a guarantee that the group or the charitable company will continue in operation.

Material uncertainty related to going concern

We draw attention to note 2 to the financial statements which indicates that the group's and the parent company's ability to continue as a going concern is dependent on the successful confirmation of funding income (at a level consistent with the group and parent being able to meet its liabilities as they fall due) provided by relevant funding bodies. These events and conditions, along with the other matters explained in Note 2, constitute a material uncertainty that may cast significant doubt on the group's and the parent company's ability to continue as a going concern.

Our opinion is not modified in respect of this matter.

Fraud and breaches of laws and regulations - ability to detect

Identifying and responding to risks of material misstatement due to fraud

To identify risks of material misstatement due to fraud ("fraud risks") we assessed events or conditions that could indicate an incentive or pressure to commit fraud or provide an opportunity to commit fraud. Our risk assessment procedures included:

- Enquiring of Directors, the audit committee, internal audit, and inspection of policy documentation as to the Group's high-level policies and procedures to prevent and detect fraud, including the internal audit function, and the Group's channel for "whistleblowing", as well as whether they have knowledge of any actual, suspected, or alleged fraud.
- Reading Board and audit committee minutes.
- Considering remuneration incentive schemes and performance targets for management and Directors
- Using analytical procedures to identify any unusual or unexpected relationships.

As required by auditing standards, and taking into account possible pressures to of going concern we perform procedures to address the risk of management override of controls and the risk of fraudulent revenue recognition, in particular the risk that UK Biocentre Limited turnover is recorded in the wrong period and the risk that UK Biocentre Limited management may be in a position to make inappropriate accounting entries.

We did not identify any additional fraud risks.

We also performed procedures including:

• Identifying journal entries and other adjustments to test based on risk criteria and comparing the identified entries to supporting documentation. These included those posted by senior finance management, those posted by unauthorised persons, journals containing unusual words and unusual cash postings.

Identifying and responding to risks of material misstatement due to non-compliance with laws and regulations

We identified areas of laws and regulations that could reasonably be expected to have a material effect on the financial statements from our general commercial and sector experience, and through discussion with the Directors and other management (as required by auditing standards), and from inspection of the Group's regulatory and legal correspondence and discussed with the Directors and other management the policies and procedures regarding compliance with laws and regulations. As the Group is regulated, our assessment of risks involved gaining an understanding of the control environment including the entity's procedures for complying with regulatory requirements.

We communicated identified laws and regulations throughout our team and remained alert to any indications of noncompliance throughout the audit.

The potential effect of these laws and regulations on the financial statements varies considerably.

Firstly, the Group is subject to laws and regulations that directly affect the financial statements including financial reporting legislation (including related companies and charities legislation), distributable profits legislation, taxation legislation, GDPR and the Human tissue act and we assessed the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items.

Secondly, the Group is subject to many other laws and regulations where the consequences of non-compliance could have a material effect on amounts or disclosures in the financial statements, for instance through the imposition of fines or litigation or the loss of the Group's license to operate. We identified the following areas as those most likely to have such an effect: health and safety, anti-bribery, employment law, contract legislation, including government contracts and money laundering. Auditing standards limit the required audit procedures to identify non-compliance with these laws and regulations to enquiry of the Directors and other management and inspection of regulatory and legal correspondence, if any. Therefore if a breach of operational regulations is not disclosed to us or evident from relevant correspondence, an audit will not detect that breach.

Context of the ability of the audit to detect fraud or breaches of law or regulation

Owing to the inherent limitations of an audit, there is an unavoidable risk that we may not have detected some material misstatements in the financial statements, even though we have properly planned and performed our audit in accordance with auditing standards. For example, the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it. In addition, as with any audit, there remained a higher risk of non-detection of fraud, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls. Our audit procedures are designed to detect material misstatement. We are not responsible for preventing non-compliance or fraud and cannot be expected to detect non-compliance with all laws and regulations.

Other information

The Directors are responsible for the other information, which comprises the Strategic report and the Director report. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except as explicitly stated below, any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether, based on our financial statements audit work, the information therein is materially misstated or inconsistent with the financial statements or our audit knowledge. Based solely on that work:

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

Matters on which we are required to report by exception

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

- the charitable company has not kept adequate accounting records or returns adequate for our audit have not been received from branches not visited by us; or
- the charitable company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit

We have nothing to report in these respects.

Director's responsibilities

As explained more fully in their statement set out on page 26 the trustees (who are also the Directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view; such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error; assessing the group's and the charitable company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern; and using the going concern basis of accounting unless they either intend to liquidate the group or the charitable company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities

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

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

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

This report is made solely to the group's and charitable company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006, and to the charity's directors, as a body, in accordance with section 44 (1)(c) of the Charities and Trustee Investment (Scotland) Act 2005 and regulation 10 of the Charities Accounts (Scotland) Regulations 2006. Our audit work has been undertaken so that we might state to the group's and charitable company's members and the directors those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the group and charity, its members as a body and its directors as a body, for our audit work, for this report or for the opinions we have formed.

Timothy Cutler (Senior Statutory Auditor) for and on behalf of KPMG LLP, Statutory Auditor *Chartered Accountants* 1 St Peter's Square, Manchester, M2 3AE

Date: 16 December 2021

CONSOLIDATED STATEMENT OF FINANCIAL ACTIVITIES (including Consolidated Income and Expenditure Account)

For the year ended 30 September 2021

	Notes	Unrestricted Funds 2021	Restricted Funds 2021	Total Funds 2021	Total Funds 2020
		£	£	£	£
INCOME:					
Funding		7,033,826	8,702,922	15,736,748	21,478,736
Donations		4,912,641	1,710,400	6,623,041	-
Income from charitable activities					
Access fees	4	2,265,579	-	2,265,579	2,211,417
Coronavirus Government support	4	5,067	320,290	325,357	-
Income from trading activities					
Commercial trading operations	4	9,194,956	-	9,194,956	3,726,878
Investments	5	4,790	-	4,790	59,800
Other	4	48,912	878,845	927,757	40,290
TOTAL INCOME		23,465,771	11,612,457	35,078,228	27,517,121
EXPENDITURE					
Charitable activities	7	(17,576,909)	(14,402,666)	(31,979,575)	(28,259,517)
Commercial trading operations Other	14	(2,737,778)	-	(2,737,778)	(3,215,260)
Other operating income	8	26,259,035	1,395,971	27,655,006	7,676,478
Other operating expenditure	8	(26,259,035)	(1,395,971)	(27,655,006)	(7,676,478)
TOTAL EXPENDITURE		(20,314,687)	(14,402,666)	(34,717,353)	(31,474,777)
NET INCOME / (EXPENDITURE) BEFORE TAX FOR THE FINANCIAL YEAR	6	3,151,084	(2,790,209)	360,875	(3,957,656)
Taxation	12	(1,249,172)	-	(1,249,172)	(23,473)
NET INCOME / (EXPENDITURE) FOR THE FINANCIAL YEAR		1,901,912	(2,790,209)	(888,297)	(3,981,129)
RECONCILIATION OF FUNDS					
Total funds brought forward	20	4,166,547	8,182,705	12,349,252	16,330,381
TOTAL FUNDS CARRIED FORWARD	20	6,068,459	5,392,496	11,460,955	12,349,252

No separate Consolidated Statement of Changes in Equity has been presented as all such gains and losses have been included in the Consolidated Statement of Financial Activities for the year

All income and expenditure are derived from continuing activities.

The notes on pages 37 to 66 form part of these financial statements.

CHARITY STATEMENT OF FINANCIAL ACTIVITIES (including Income and Expenditure Account)

For the year ended 30 September 2021

	N		a		T
	Notes	Unrestricted	Restricted	Total	Total
		Funds	Funds	Funds	Funds
		2021	2021	2021	2020
		£	£	£	£
INCOME:					
Funding		7,033,826	8,702,922	15,736,748	21,478,736
Donations		4,912,641	1,710,400	6,623,041	-
Income from charitable activities					
Access fees	4	2,265,579	-	2,265,579	2,211,417
Coronavirus Government support	4	5,067	320,290	325,357	-
Investments	5	2,647	-	2,647	45,347
Other	4	240,632	878,845	1,119,477	394,958
TOTAL INCOME		14,460,392	11,612,457	26,072,849	24,130,458
EXPENDITURE					
Charitable activities	7	(17,860,534)	(14,402,666)	(32,263,200)	(28,522,781)
				· · · ·	
TOTAL EXPENDITURE		(17,860,534)	(14,402,666)	(32,263,200)	(28,522,781)
NET (EXPENDITURE) / INCOME FOR THE	6		(2, 200, 200)		(4.202.222)
FINANCIAL YEAR	6	(3,400,142)	(2,790,209)	(6,190,351)	(4,392,323)
RECONCILIATION OF FUNDS					
Total funds brought forward	20	4,619,008	8,181,456	12,800,464	17,192,787
2					
TOTAL FUNDS CARRIED FORWARD	20	1,218,866	5,391,247	6,610,113	12,800,464
		, ,		, , -	, , ,

No separate Charity Statement of Changes in Equity has been presented as all such gains and losses have been included in the Statement of Financial Activities for the year

All income and expenditure are derived from continuing activities

The notes on pages 37 to 66 form part of these financial statements.

CONSOLIDATED BALANCE SHEET

At 30 September 2021

	Notes	2021		2020	
		£	£	£	£
FIXED ASSETS					
Tangible fixed assets	13		7,686,425		10,617,439
CURRENT ASSETS					
Inventories	15	632,854		330,868	
Debtors	16	6,775,074		9,208,022	
Cash at bank and in hand		19,827,929		13,634,732	
		27,235,857		23,173,622	
CREDITORS: amounts falling due within one year	17	(14,010,412)		(15,972,492)	
NET CURRENT ASSETS			13,225,445		7,201,130
TOTAL ASSETS LESS CURRENT LIABILITES			20,911,870		17,818,569
CREDITORS: amounts falling due after more than one year	18		(3,218,595)		(3,700,004)
PROVISION FOR LIABILITES AND CHARGES	19		(6,232,320)		(1,769,313)
NET ASSETS			11,460,955		12,349,252
Represented by:					
ACCUMULATED FUNDS OF THE GROUP					
Unrestricted funds	20		6,068,459		4,166,547
Restricted funds	20		5,392,496		8,182,705
TOTAL GROUP FUNDS			11,460,955		12,349,252

The notes on pages 37 to 66 form part of these financial statements.

The financial statements on pages 31 to 66 were approved by the Board of Directors on 10 December 2021, and are signed on its behalf by:

KULAN

Professor the Lord Kakkar Chair

15 December 2021

Company registration number 04978912 Registered Charity number in England and Wales 1101332 Registered Charity number in Scotland SC039230

CHARITY BALANCE SHEET

At 30 September 2021

	Notes	2021		2020	
		£	£	£	£
FIXED ASSETS					
Tangible fixed assets	13		6,958,639		9,790,687
Investments	14		10,000		10,000
			6,968,639		9,800,687
CURRENT ASSETS					
Inventories	15	107,121		176,758	
Debtors	16	2,761,136		2,066,675	
Cash at bank and in hand		7,037,111		7,638,087	
		9,905,368		9,881,520	
CREDITORS: amounts falling due within one year	17	(4,031,574)		(5,112,430)	
		(4,031,374)		(3,112,430)	
NET CURRENT ASSETS			5,873,794		4,769,090
TOTAL ASSETS LESS CURRENT LIABILITIES			12,842,433		14,569,777
PROVISIONS FOR LIABILITIES AND CHARGES	19		(6,232,320)		(1,769,313)
NET ASSETS			6,610,113		12,800,464
Represented by: ACCUMULATED FUNDS OF THE CHARITY					
Unrestricted funds	20		1,218,866		4,619,008
Restricted funds	20		5,391,247		8,181,456
TOTAL CHARITY FUNDS			6,610,113		12,800,464

The notes on pages 37 to 66 form part of these financial statements.

The financial statements on pages 31 to 66 were approved by the Board of Directors on 10 December 2021 and are signed on its behalf by:

KULAN

Professor the Lord Kakkar Chair

15 December 2021

Company registration number 04978912 Registered Charity number in England and Wales 1101332 Registered Charity number in Scotland SC039230

CONSOLIDATED CASH FLOW STATEMENT

For the year ended 30 September 2021

	2021		2020	
	£	£	£	£
CASHFLOWS FROM OPERATING ACTIVITIES				
Net movement in funds as per the Statement		(888,297)		(3,981,129)
of Financial Activities				
Adjustments for:	()		/	
Interest received	(4,790)		(59,800)	
Depreciation charge	3,273,904		3,110,769	
Release of contributions for the purchase of	(84,612)		(52,668)	
tangible fixed assets Taxation	1 240 172		22 472	
(Increase) decrease in stocks	1,249,172 (301,986)		23,473 250,684	
Decrease (increase) in debtors	2,371,793		(4,726,834)	
Increase in creditors	848,014		7,142,295	
	040,014		7,142,233	
CASH FROM OPERATIONS		7,351,495		5,687,919
NET CASH INFLOW FROM OPERATING ACTIVITIES		6,463,198		1,706,790
CASH FLOWS FROM INVESTING ACTIVITIES				
Interest received	4,790		59,800	
Payments to acquire tangible fixed assets	(342,890)		(1,785,609)	
Net cash flow from investing activities		(338,100)		(1,725,809)
CASH FLOWS FROM FINANCING ACTIVITES				
Contributions for the purchase of tangible fixed assets	68,099		274,602	
Net cash used in financing activities		68,099		274,602
Increase (decrease) in cash and cash		6,193,197		255,583
equivalents				
Cash and cash equivalents at beginning of year		13,634,732		13,379,149
Cash and cash equivalents at end of year		19,827,929		13,634,732

CHARITY CASH FLOW STATEMENT

For the year ended 30 September 2021

	2021		202	0
	£	£	£	£
CASHFLOWS FROM OPERATING ACTIVITIES				
Net movement in funds as per the Statement		(6,190,351)		(1 202 222)
of Financial Activities		(0,190,351)		(4,392,323)
Adjustments for:				
Interest received	(2,647)		(45,347)	
Depreciation charge	3,066,935		2,919,737	
(Increase) decrease in stocks	69,637		(28,746)	
(Increase) decrease in debtors	(694,461)		517,426	
Increase in creditors	3,382,151		651,286	
CASH FROM OPERATIONS		5,821,615		4,014,356
NET CASH (OUTFLOW) INFLOW FROM				
OPERATING ACTIVITIES		(368,736)		(377,967)
CASH FLOWS FROM INVESTING ACTIVITIES				
Interest received	2,647		45,347	
Payments to acquire tangible fixed assets	(234,887)		(1,370,555)	
Net cash flow outflow from investing activities		(232,240)		(1,325,208)
(Decrease) increase in cash and cash equivalents		(600,976)		(1,703,175)
Cash and cash equivalents at beginning of year		7,638,087		9,341,262
Cash and cash equivalents at end of year		7,037,111		7,638,087

For the year ended 30 September 2021

1 STATUTORY INFORMATION

UK Biobank Limited ("the Charity") is a limited company incorporated in England, limited by guarantee, number 04978912. The registered office is Units 1-2 Spectrum Way, Adswood, Cheshire SK3 0SA

UK Biobank Limited ("the Charity") is a Registered Charity, registered in England and Wales number 1101332 and in Scotland number SC03230.

2 ACCOUNTING POLICIES

Basis of preparation

The Charity's financial statements have been prepared in accordance with UK Generally Accepted Accounting Practice, comprising Financial Reporting Standard 102 - applicable in the United Kingdom and the Republic of Ireland ("FRS102") and with the Statement of Recommended Practice "Accounting and Reporting by Charities" FRS 102 as revised in 2019 ("the SORP") together with the reporting requirements of the Companies Act 2006, the Charities Act 2011, the Charities and Trustee Investment (Scotland) Act 2015 and the Charities Accounts (Scotland) Regulations 2006. The Charity has adapted the Companies Act formats to reflect the SORP and the nature of the Charity's activities.

The financial statements have been prepared on the historical cost convention and in sterling which is the functional currency of the Charity, rounded to the nearest f.

Basis of consolidation

The financial statements of the Charity and its wholly owned subsidiary undertaking, UK Biocentre Limited, as detailed in Note 14, are consolidated on a line-by-line basis. In the consolidated accounts uniform accounting policies have been used. The consolidated entity is referred to as "the Group".

All inter-group transactions, balances and unrealised gains on transactions between group companies are eliminated on consolidation.

Going concern

UK Biobank is a charity organisation funded by a series of third party funders to enable biomedical research through UK Biobank's core activities (that make available information and biomedical samples on half a million participants) and a number of enhancement projects (that further enhance this information). In February 2017, UK Biobank was notified that core funding of £31.7m would be provided for a period of 5 years (running from 1 July 2017- 30 June 2022).

Whilst UK Biobank's application for core funding for the next 5 years is not due to be formally agreed in writing until Spring 2022, the panel assessing this application have recommended that funding should be continued. The level of funding recommended by the panel is sufficient to enable UK Biobank to continue to operate for the next 5 years.

Based on the above indications the directors believe that it remains appropriate to prepare the financial statements on a going concern basis. However, this matter indicates the existence of a material uncertainty related to events or conditions that may cast significant doubt on the charity's ability to continue as a going concern and, therefore, that the charity may be unable to realise its assets and discharge its liabilities in the normal course of business. The financial statements do not include any adjustments that would result from the basis of preparation being inappropriate.

Public benefit

The Charity meets the definition of a public benefit entity under FRS 102.

For the year ended 30 September 2021

2 ACCOUNTING POLICIES (CONTINUED)

Critical accounting judgements and estimations

Judgements and estimations are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. In making these estimates, the Charity makes assumptions concerning the future.

The judgements and estimations made that have a significant risk of causing a material adjustment to the carrying amount of assets and liabilities within the next financial year are as follows:

Pension Scheme of the Charity – Universities Superannuation Scheme ("USS")

FRS 102 makes the distinction between a Group Plan and a multi-employer scheme. A Group Plan consists of a collection of entities under common control typically with a sponsoring employer. A multi-employer scheme is a scheme for entities not under common control and represents (typically) an industry-wide scheme such as that provided by USS. The accounting for a multi-employer scheme where the employer has entered into an agreement with the scheme that determines how the employer will fund a deficit results in the recognition of a liability for the contributions payable that arise from the agreement (to the extent that they relate to the deficit) and the resulting expense is recognised in profit or loss. The Directors are satisfied that the scheme provided by USS meets the definition of a multi-employer scheme and has therefore recognised the discounted fair value of the contractual contributions under the funding plan in existence at the date of approving the financial statements.

In addition, because the USS scheme is in deficit and a funding plan has been agreed, section 28 of FRS 102 requires individual employers to recognise a liability for the contributions payable that arise from the agreement to fund the scheme (to the extent that they relate to the deficit) and the resulting expense in the Statement of Financial activities. A deficit modeller was utilised to produce the provision estimates, based on an appropriate discount rate and estimates of staff numbers. Further information is provided on these assumptions in Note 25.

Income

Income receivable is recognised when the Group has entitlement to the funds, any performance conditions attached to the item(s) of income have been met, it is probable that the income will be received and the amount can be measured reliably. Income not meeting these criteria is deferred.

Funding

Funding income, including monies for the purchase of tangible fixed assets, is recognised in full in the Statement of Financial Activities in the year in which it is received.

Donated services and goods

Donated services and goods are recognised as income when the Charity has control over the items, any conditions associated with the donated items have been met, the receipt of the economic benefit from the use by the Charity of the item is probable and the economic benefit can be measured reliably.

On receipt, donated services and goods are recognised in income on the basis of the value of the gift to the Charity, which is the amount that the Charity would have been willing to pay to obtain the goods or services of equivalent economic benefit on the open market; a corresponding amount is also recognised in expenditure in the period of receipt.

Incoming resources from charitable activities

Incoming resources from charitable activities includes income for the use of the Charity's resource and is recognised as earned. Income is deferred when fees have been received in advance.

For the year ended 30 September 2021

2 ACCOUNTING POLICIES (CONTINUED)

Income from government support

Government support income is recognised when the Group is entitled to receipt.

Commercial trading operations

Income from commercial trading operations is recognised at the fair value of the consideration received or receivable for sale of goods and/or services in the ordinary nature of the business. Where the goods and/or services are to be provided in a future period the income is deferred. Turnover represents goods sold and services provided to external customers, net of Value Added Tax.

Interest receivable

Interest income and interest receivable includes bank interest, which is recognised in the Statement of Financial activities on an accruals basis.

Other income

Other income is recognised in the year in which it is received or receivable.

Expenditure

Expenditure is recognised as soon as there is a legal or constructive obligation committing the Group to the expenditure, it is probable that settlement will be required and the amount of the obligation can be measured reliably.

All expenditure is accounted for on an accruals basis.

Charitable activities

Charitable activities expenditure is in relation to the Charity's projects and both the direct costs and support costs relating to these activities. Expenditure is summarised under functional headings on a direct cost basis.

Commercial trading operations

Cost of generating funds comprises those costs incurred in commercial trading activities.

Interest payable

Interest payable and similar charges including bank interest and intercompany interest payable is recognised in the Statement of Financial activities on an accruals basis.

Fund accounting

Unrestricted funds: General funds

General funds are unrestricted funds, which are expendable for furtherance of the objectives of the Charity without further specified purposes.

Unrestricted funds: Non-charitable trading funds

Non-charitable trading funds are unrestricted funds, which are expendable for furtherance of the objectives of the Charity's group undertaking, UK Biocentre Limited, without further specified purposes.

Unrestricted funds: Capital Replacement Reserve funds

Capital Replacement Reserve funds are unrestricted funds, which will be used for the purchase of asset replacements.

Restricted funds

Restricted funds are to be used for specific purposes laid down by the Donor. Expenditure for those purposes is charged to the fund.

For the year ended 30 September 2021

2 ACCOUNTING POLICIES (CONTINUED)

Tangible fixed assets and depreciation

Tangible fixed assets are capitalised, including purchase price and any costs of bringing the assets to the working condition for their intended use.

Depreciation is provided in order to write off the cost of tangible fixed assets on a straight-line basis over their estimated useful lives, as follows:

Leasehold improvements	over the life of the lease
Computer systems	25% - 33% straight line
Laboratory and clinic equipment	10% - 33% straight line
Fixtures, fittings and other equipment	20% - 25% straight line
Sample storage and infrastructure	4% - straight line or over the life of the lease, whichever is the shorter
Motor vehicles	20% - straight line

The carrying values of tangible fixed assets are reviewed for impairment when events or changes in circumstances indicate that the carrying amount may not be recoverable. Any impairment is recognised in the Statement of Financial Activities.

Repairs, maintenance and inspection costs of tangible fixed assets are charged to the Statement of Financial Activities as incurred.

Inventories

Inventories consist of stock and work in progress, where work in progress represents costs associated with uninvoiced customer contracts at the year-end. Stocks and work in progress are stated at the lower of cost and net realisable value. Cost includes all costs incurred in bringing each product to its present location. Net realisable value is based on the estimated selling price less costs expected to be incurred as part of the sale.

Accruals and deferred income: contributions for the purchase of tangible fixed assets

Contributions for the purchase of tangible fixed assets are from external customers. They are credited to a deferral account and are released to the Statement of Financial Activities in equal annual amounts over the expected useful life of the asset to which they relate as follows:

Leasehold improvements Sample storage and processing equipment Computer systems Fixtures, fittings and equipment Motor vehicles over the period of the lease 4% - 20% straight line 20% - 33% straight line 20% - 25% straight line 20% straight line

Financial instruments

The Company has chosen to adopt Section 11 and Section 12 of FRS 102 in respect of financial instruments,

Basic financial instruments

Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits.

For the year ended 30 September 2021

2 ACCOUNTING POLICIES (CONTINUED)

Trade and other debtors / creditors

Trade and other debtors are recognised initially at transaction price less attributable transaction costs. Trade and other creditors are recognised initially at transaction price plus attributable transaction costs. Subsequent to initial recognition, they are measured at amortised cost using the effective interest method, less any impairment losses in the case of trade debtors.

Other financial instruments

Other financial instruments are those not considered to be Basic financial instruments.

Foreign currencies

Transactions in foreign currencies are recorded at the rate ruling on the time of the transaction. Foreign currency balances are translated into sterling at the exchange rate at the balance sheet date. Resulting gains or losses are included in the Statement of Financial Activities.

Leases

Rents payable under operating leases are charged to the Statement of Financial Activities on a straight-line basis over the lease term.

Rent-free periods or other incentives received for entering into a lease are accounted for over the period of the lease so as to spread the benefit received over the lease term.

Research and development

Research and development expenditure is written off to the Statement of Financial Activities as it is incurred.

Investments

The investment in the subsidiary is held at cost less accumulated impairment losses.

Pension scheme

Charity

The Charity participates in the Universities Superannuation Scheme. With effect from 1 October 2017, the scheme changed from a defined benefit only pension scheme to a hybrid pension scheme, providing defined benefits (for all members), as well as defined contribution benefits. The assets of the scheme are held in a separate trustee-administered fund. Because of the mutual nature of the scheme, the assets are not attributed to individual institutions and a scheme-wide contribution rate is set. The Charity is therefore exposed to actuarial risks associated with other institutions' employees and is unable to identify its share of the underlying assets and liabilities of the scheme on a consistent and reasonable basis. As required by Section 28 of FRS 102 "Employee benefits", the Charity therefore accounts for the scheme as if it were a wholly defined contribution scheme. As a result, the amount charged to the Statement of Financial Activities (including the income and expenditure accounts) represents the contributions payable to the scheme. Since the Charity has entered into an agreement (the Recovery Plan) that determines how each employer within the scheme will fund the overall deficit, the Charity recognises a liability for the contributions payable that arise from the agreement (to the extent that they relate to the deficit) and therefore an expense is recognised.

For the year ended 30 September 2021

2 ACCOUNTING POLICIES (CONTINUED)

Subsidiary undertaking: UK Biocentre Limited

UK Biocentre Limited operates a defined contributions scheme for the benefit of its employees. Contributions are recognised in the Statement of Financial Activities when due.

Taxation

Charity

The Charity is a registered charity and therefore it is exempt from income and corporation tax on income and gains falling within chapter 3 Part 11 Corporation Tax Act 2010 or S256 of the Taxation of Chargeable Gains Act 1992 to the extent that these are applied to its charitable objects.

Subsidiary undertaking: UK Biocentre Limited

The subsidiary undertaking, UK Biocentre Limited, is liable to corporation tax on its income and gains. Gift Aid payments paid to the Charity will reduce the taxable income and gains.

Tax on the profit or loss for the year comprises current and deferred tax.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the balance sheet date and any adjustment to tax payable in respect of previous years. Taxable income or loss for the year differs from total comprehensive income because it excludes items of income or expense that are taxable or deductible in other periods.

Deferred tax is provided on timing differences, which arise from the inclusion of income and expenses in tax assessments in periods different from those in which they are recognised in the financial statements. Deferred tax is not recognised on permanent differences arising because certain types of income or expense are non-taxable or are disallowable for tax. Deferred tax is measured at the tax rate that is expected to apply to the reversal of the related difference, using tax rates enacted or substantively enacted at the associated balance sheet date. Deferred tax balances are not discounted. Unrelieved tax losses and other deferred tax assets are recognised only to the extent that it is probable that they will be recovered against the reversal of deferred tax liabilities or other future taxable profits.

3 MEMBERS' LIABILITY

The liability of the Members is limited to a maximum of £1 each.

For the year ended 30 September 2021

4 INCOME

The analysis of income by activity and geographical area is as follows:

	Group		Charity	
	2021	2020	2021	2020
	£	£	£	£
Unrestricted Funds				
Income from charitable activities				
Access fees	2,265,579	2,211,417	2,265,579	2,211,417
Government support: Coronavirus Job Retention Scheme	5,067	-	5,067	-
Income from trading activities				
Commercial trading operations (Note 14)	9,194,956	3,726,878	-	-
Other	48,912	40,290	240,632	394,958
	11,514,514	5,978,585	2,511,278	2,606,375
Restricted Funds				
Income from charitable activities				
Government support: Coronavirus Job Retention Scheme	320,290	-	320,290	-
Income from trading activities				
Other	878,845	-	878,845	-
	1,199,135	-	1,199,135	
Total	12,713,649	5,978,585	3,710,413	2,606,375

The Charity has taken advantage of the Government support available in response to the Coronavirus pandemic, by using the Coronavirus Job Retention Scheme when staff were furloughed due to the pausing of the imaging programme.

A geographical analysis of income is as follows:

	Group		Charity		
	2021	2020	2021	2020	
	£	£	£	£	
Unrestricted Funds					
United Kingdom	9,915,913	4,354,746	938,141	982,536	
Rest of Europe	396,836	491,302	371,372	491,302	
Rest of the world	1,201,765	1,132,537	1,201,765	1,132,537	
	11,514,514	5,978,585	2,511,278	2,606,375	
Restricted Funds					
United Kingdom	1,199,135	-	1,199,135	-	
Total	12,713,649	5,978,585	3,710,413	2,606,375	

For the year ended 30 September 2021

5 INVESTMENTS

	Group		Charity	
	2021	2020	2021	2020
	£	£	£	£
Unrestricted Funds				
Investment income	4,790	59,800	2,647	45,347
		<u> </u>		

6 NET MOVEMENT OF FUNDS FOR THE FINANCIAL YEAR

Net movement of funds for the financial year is stated:

	Grou	up	Charity	
	2021	2020	2021	2020
	£	£		
After charging:				
Auditor's remuneration – Statutory audit services	48,410	47,000	33,990	33,000
Depreciation and impairment of owned tangible fixed				
assets:				
The Charity	3,066,935	2,919,737	3,066,935	2,919,737
The subsidiary undertaking	206,969	191,032	-	-
Operating leases rentals:				
Hire of plant and machinery	294,981	316,829	22,841	19,806
Land and buildings	737,006	717,950	332,418	331,838
After crediting:				
Release of contributions for the purchase of tangible fixed assets (Note 18)	84,612	52,668	-	-

7 EXPENDITURE: CHARITABLE ACTIVITIES

	Gro	Group		Charity	
	2021	2020	2021	2020	
	£	£	£	£	
Unrestricted Funds					
Staff costs	7,842,373	4,396,006	7,842,373	4,396,006	
Depreciation	1,035,201	945,936	1,035,201	945,936	
Other costs	8,699,335	3,025,583	8,982,960	3,288,555	
	17,576,909	8,367,525	17,860,534	8,630,497	
Restricted Funds					
Staff costs	5,264,199	3,953,183	5,264,199	3,953,183	
Depreciation	2,031,734	1,973,801	2,031,734	1,973,801	
Other costs	7,106,733	13,965,008	7,106,733	13,965,300	
	14,402,666	19,891,992	14,402,666	19,892,284	
Total	31,979,575	28,259,517	32,263,200	28,522,781	

For the year ended 30 September 2021

8 EXPENDITURE: OTHER

	Group		Charity	Charity	
	2021	2020	2021	2020	
	£	£	£	£	
Unrestricted Funds					
Other operating income	26,259,035	6,366,924	-	-	
Restricted Funds					
Other operating income	1,395,971	1,309,554	-	-	
Total	27,655,006	7,676,478	-	-	
Unrestricted Funds					
Other operating expenditure	(26,259,035)	(6,366,924)	-	-	
Restricted Funds					
Other operating expenditure	(1,395,971)	(1,309,554)	-	-	
Total	(27,655,006)	(7,676,478)	-	-	

Included within Other Operating Income is an amount of £1,395,971 (2020: £1,309,554) of Grant income with the remaining amount of £26,259,035 (2020: £6,366,924) relating to income received by UK Biocentre Limited to deliver COVID-19 testing to the Department of Health and Social Care for expenditure reimbursed on a cost recovery basis. Both amounts have an equivalent and offsetting value included within Other Operating Expenditure.

Department of Health and Social Care: Grant

In March 2019, the Department of Health and Social Care awarded a Grant of £1,700,000 to the UK Biocentre Limited for the 18-month period from 1 October 2018 to 31 March 2020. This funding is restricted, to be used in respect of specific expenditure defined within the Grant Award agreement. In March 2020, a further award of £2,300,000 was granted for the 15-month period from 1 April 2020 to 30 June 2021.

The amount shown as Other Operating Income in the year, amounted to £1,395,971 (2020: £1,309,554) and is the restricted Grant income which covers costs incurred during the period from 1 October 2020 to 30 June 2021, with an equivalent amount shown as Other Operating Expenditure.

Included within Contributions for the purchase of tangible fixed assets (Note 18) is restricted Grant income of £39,903 (2020: £213,090), which covers the costs of assets included within the Grant Award agreement.

Department of Health and Social Care: COVID-19 Project Cost Contribution

From April 2020, as part of the COVID-19 testing contract with the Department of Health and Social Care, a contribution towards operating expenditure has been reimbursed by the Department of Health and Social Care.

The amount shown as Other Operating Income in the year amounted to £26,259,035 (2020: £6,366,924), with an equivalent amount shown as Other Operating Expenditure.

Included within Contributions for the purchase of tangible fixed assets (Note 18) is restricted Grant income of £28,196 (2020: £61,512), which covers the costs of assets reimbursed within the COVID-19 Project agreement

9 STAFF NUMBERS AND COSTS

The average number of persons employed by the Charity and the Group, including Directors, during the year analysed by category and by those full-time and part-time was as follows:

Group

		2021			2020	
	Full-time	Part-time	Total	Full-time	Part-time	Total
	No.	No.	No.	No.	No.	No.
Directors of the Charity	-	10	10	-	10	10
Directors of the subsidiary undertaking	-	6	6	-	6	6
Management	9	-	9	8	1	9
Charity's projects	162	10	172	147	14	161
UK Biocentre Laboratory,						
Warehouse and	213	2	215	63	1	64
Administrative personnel						
Total	384	28	412	218	32	250

Charity

		2021			2020	
	Full-time	Part-time	Total	Full-time	Part-time	Total
	No.	No.	No.	No.	No.	No.
Directors	-	10	10	-	10	10
Management	5	-	5	5	1	6
Charity's projects	162	10	172	147	14	161
Total	167	20	187	152	25	177

The aggregate payroll costs of these persons, which include Directors, were as follows:

	Group		Charity	
	2021	2020	2021	2020
	£	£	£	£
Wages and salaries	14,934,743	9,043,966	6,784,247	6,593,800
Social security costs	1,709,604	889,139	709,141	655,216
Pension contributions	1,981,848	1,237,399	1,166,810	1,037,013
Pension deficit provision	4,446,374	63,160	4,446,374	63,160
	23,072,569	11,233,664	13,106,572	8,349,189
Represented by:				
Unrestricted Funds	17,808,370	7,280,481	7,842,373	4,396,006
Restricted Funds	5,264,199	3,953,183	5,264,199	3,953,183
Total	23,072,569	11,233,664	13,106,572	8,349,189

Wages and salaries include termination payments for the Group and the Charity of £5,688 (2020: £47,500)

For the year ended 30 September 2021

9 STAFF NUMBERS AND COSTS (CONTINUED)

Charity

Staff costs of £7,842,373 (2020: £4,396,006) are included in "Expenditure: Charitable activities" as shown in Note 7.

Group

Staff costs of £7,842,373 (2020: £4,396,006) for the Charity are included in "Expenditure: Charitable activities" as shown in Note 7. Staff costs of £9,965,997 (2020: £2,884,475) for the subsidiary undertaking are included in Cost of Sales, Administrative Expenses and Other Operating Expenses in Note 14.

The number of employees whose remuneration, excluding social security costs and employer pension contributions, exceeded £60,000 during the year was as follows:

	Group		Charity	
	2021	2020	2021	2020
	No.	No.	No.	No.
£60,000 to £70,000	11	6	6	6
£70,001 to £80,000	4	1	1	1
£80,001 to £90,000	1	3	1	2
£90,001 to £100,000	2	2	-	1
£100,001 to £110,000	1	3	1	2
£110,001 to £120,000	-	1	-	-
£120,001 to £130,000	3	1	2	1
£130,001 to £140,000	1	-	1	-
£140,001 to £150,000	-	1	-	1
£150,001 to £160,000	1	-	1	-
£160,001 to £170,000	1	-	-	-

All of these employees accrued pension benefits during the year.

Included in "Expenditure" for the Group and the Charity are costs relating to staff who are not employed directly by the Charity or the Group as follows:

	Group		Charity	
	2021	2020	2021	2020
	£	£	£	£
Unrestricted Funds	3,336,014	1,632,440	572,792	649,710
Restricted Funds	91,146	46,719	91,146	46,719
Total	3,427,160	1,679,159	663,938	696,429

Details of these costs are as follows:

- The Group incurred costs of £3,122,811 (2020: £1,336,777) and the Charity incurred costs of £359,589 (2020: £354,047) for the use of temporary staff and other seconded staff during the year.
- Professor Sir Rory Collins, who is the Chief Executive and Principal Investigator for the Charity, is an employee of the University of Oxford, not an employee of the Charity. Professor Collins is seconded to the Charity for 60% of his time pursuant to agreements entered into between the Charity and the University of Oxford. The cost during the year of his secondment from the University of Oxford was £118,518 (2020: £115,547).

9 STAFF NUMBERS AND COSTS (CONTINUED)

- Professor Naomi Allen, who was Chief Scientist for the Charity during the year, is an employee of the University of Oxford, not an employee of the Charity. Professor Allen is seconded to the Charity for 80% of her time pursuant to agreements entered into between the Charity and the University of Oxford. The cost during the year of her secondment from the University of Oxford was £104,283 (2020: £125,857).
- Dr Alan Young, who was the Systems Architect for the Charity during the year, is an employee of the University of Oxford, not an employee of the Charity. Dr Young is seconded to the Charity for 50% of his time pursuant to agreements entered into between the Charity and the University of Oxford. The cost during the year of his secondment from the University of Oxford was £81,548 (2020: £100,978).

10 KEY MANAGEMENT PERSONNEL

Key Management Personnel of the Charity is defined as being a member of the Executive Management Team who are listed under "Legal and administrative information" on page 4.

The Executive Management Team are employees of the Charity or seconded to the Charity from other organisations. The total employment benefits, including employer pension contributions, of those members who are employed was £863,388 (2020: £908,427) and the amount paid for those seconded and agency staff was £463,977 (2020: £400,000).

11 DIRECTORS' REMUNERATION AND EXPENSES

Until March 2020, it was the Charity's policy to pay certain Non-Executive Directors a fee in recognition of their role and responsibilities. During the period from April 2018 to March 2020, provisional sums of £116,000 were recognised in respect of six Directors of the Charity; Sir Michael Rawlins, Professor Martin Bobrow, Professor Ruth Gilbert, Professor Andrew Hattersley, Professor Sir Alexander Markham and Mr Jonathan Tross. However, due to a provision of UK Biobank's constitution, which placed a limit of 50%, paid (as compared to unpaid) Directors, it has not been possible to pay these amounts. These provisional sums have been credited to the Statement of Financial Activities in the year. None of the Directors of the Charity receive any benefits and with effect from March 2020 and for the foreseeable future, none of the Charity's Directors will be remunerated.

The Charity has not met any individual travel and subsistence expenses in the year (2020: £1,507 incurred by five Directors) in attending Board, Committee and other meetings.

12 TAXATION

Unrestricted Funds: Taxation arises from commercial trading activities.

(a) Tax on loss on ordinary activities

	Group		Charity	
	2021	2020	2021	2020
	£	£	£	£
Current taxation				
UK Corporation tax @ 19% (2020: 19%)	1,164,352	-	-	-
Total current tax charge	1,164,352			

For the year ended 30 September 2021

12 TAXATION (CONTINUED)

(a) Tax on loss on ordinary activities (continued)

	Group		Charity		
	2021	2020	2021	2020	
	£	£	£	£	
Deferred taxation					
Originating and reversal of timing differences	104,132	66,185	-	-	
Adjustments in respect of prior periods:	-	-	-	-	
Timing differences not recognised	(19,312)	(42,712)	-	-	
Total deferred tax credit	84,820	23,473	-	-	
Taxation on loss on ordinary activities	1,249,172	23,473	-	-	

(b) Factors affecting tax charge for the year

The tax assessed for the year is higher than the standard rate of corporation tax in the UK (19%). The difference is explained below:

	Group		Charity		
	2021	2020	2021	2108	
Current taxation reconciliation	£	£	£	£	
Profit on ordinary activities before taxation	6,551,226	434,667	-	-	
Profit on ordinary activities multiplied by the standard rate of corporation tax in the UK of 19% (2020: 19%) Effects of	1,244,733	82,587			
Expenses not deductible for tax purposes Income not taxable for tax purposes	935 (2,916)	- (1,757)	-	-	
Fixed assets ineligible depreciation	740	337	-	-	
Deferred taxation not recognised	-	(42,712)	-	-	
Re-measurement of deferred taxation to average rate of 19% (2020: 19%)	5,680	(14,982)			
Taxation charge	1,249,172	23,473		-	

12 TAXATION (CONTINUED)

(c) Deferred tax

The deferred tax included in the balance sheet is as follows:

	Grou	р	Charity	Charity	
	2021	2020	2021	2020	
	£	£	£	£	
Included in creditors (Note 18) (2020: debtors Note 16)	(23,665)	61,155	-	-	
Fixed asset timing differences	(61,364)	(61,846)			
Short term timing differences	37,699	30,720	-	-	
Losses and other deductions	-	92,281	-	-	
Provision for deferred tax	(23,665)	61,155			
At the beginning of the year	61,155	84,628	-	-	
Charge to the Statement of Financial Activities	(84,820)	(23,473)	-	-	
At end of the year	(23,665)	61,155			

For the year ended 30 September 2021

13 TANGIBLE FIXED ASSETS

Group

	Leasehold Improve- ments	Computer systems	Laboratory and clinic equipment	Fixtures, fittings and other	Sample storage and infra-	Motor vehicles	Total
	£	£	£	equipment £	structure £	£	£
Cost At	L	L	L	L	Ľ	L	L
1 October 2020	7,822,356	2,920,492	13,705,393	114,050	5,672,120	35,764	30,270,175
Additions Disposals	9,317 -	190,915 (16,913)	125,239 -	11,459 -	5,960 -	-	342,890 (16,913)
At 30 September 2021	7,831,673	3,094,494	13,830,632	125,509	5,678,080	35,764	30,596,152
Depreciation At							
1 October 2020	4,299,593	1,972,714	9,447,017	86,566	3,816,680	30,166	19,652,736
Charge for the year	1,016,288	410,718	1,449,506	16,779	377,814	2,799	3,273,904
Disposals	-	(16,913)	-	-	-	-	(16,913)
At 30 September 2021	5,315,881	2,366,519	10,896,523	103,345	4,194,494	32,965	22,909,727
Net Book Value At							
30 September 2020	3,522,763	947,778	4,258,376	27,484	1,855,440	5,598	10,617,439
At 30 September 2021	2,515,792	727,975	2,934,109	22,164	1,483,586	2,799	7,686,425

For the year ended 30 September 2021

13 TANGIBLE FIXED ASSETS (CONTINUED)

Charity

	Leasehold Improve- ments	Computer systems	Laboratory and clinic equipment	Fixtures, fittings and other equipment	Sample storage and infra- structure	Motor vehicles	Total
	£	£	£	£	£	£	£
Cost							
At 1 October 2020	7,551,184	2,629,442	12,844,271	46,756	5,672,120	13,995	28,757,768
Additions	9,317	158,765	49,386	11,459	5,960	-	234,887
Disposals	-	(16,913)	-	-	-	-	(16,913)
At 30 September	7,560,501	2,771,294	12,893,657	58,215	5,678,080	13,995	28,975,742
2021							
Depreciation At							
1 October 2020	4,278,703	1,840,993	8,985,470	36,838	3,816,680	8,397	18,967,081
Charge for the year	998,534	354,387	1,323,926	9,475	377,814	2,799	3,066,935
Disposals	-	(16,913)	-	-	-	-	(16,913)
At 30 September 2021	5,277,237	2,178,467	10,309,396	46,313	4,194,494	11,196	22,017,103
Net Book Value At							
30 September 2020	3,272,481	788,449	3,858,801	9,918	1,855,440	5,598	9,790,687
At 30 September 2021	2,283,264	592,827	2,584,261	11,902	1,483,586	2,799	6,958,639

14 INVESTMENTS

Charity

Shares in Group undertaking
£
10,000

As at 1 October 2020 and 30 September 2021

The investment relates to the Charity's subsidiary undertaking, UK Biocentre Limited.

UK Biocentre Limited was incorporated in England on 4 May 2011, company number 07618653 and registered office. Units 1 & 2, Spectrum Way, Adswood, Stockport, Cheshire SK3 0SA. UK Biocentre commenced trading on incorporation and the nature of its business is the provision of sample storage and processing services for biomedical research studies. Its share capital consists of ordinary shares which are 100% owned by the Charity.

A reconciliation of the results of UK Biocentre Limited with the amounts shown in the group financial statements is as follows:

	202	21	202	20
	£	£	£	£
Turnover: Commercial trading operations		9,484,958		3,990,142
Consolidation adjustment		(290,002)		(263,264)
		9,194,956		3,726,878
Expenditure: Commercial trading operations		-, -,		-, -,
Cost of sales	(1,946,517)		(1,773,557)	
Administration costs	(989,358)		(1,796,371)	
Consolidation adjustments	198,097		354,668	
		(2,737,778)		(3,215,260)
Interest receivable		2,143		14,453
Expenditure: Other				
Other operating Income (Note 8)	27,655,006		7,676,478	
Other operating Expenses (Note 8)	(27,655,006)		(7,676,478)	
		_		_
		-		
Net profit reported in group financial statements		6,459,321		526,071
Add consolidation adjustments		91,905		(91,404)
		·		
Net profit for the period reported in UK Biocentre Limited.		6,551,226		434,667
Taxation		(1,249,172)		(23,473)
Retained in UK Biocentre Limited		5,302,054		411,194

Income and expenditure relating to commercial trading operations are attributable to the one principal activity of UK Biocentre Limited.

For the year ended 30 September 2021

14 INVESTMENTS (CONTINUED)

At the balance sheet date, the aggregate amounts of UK Biocentre Limited's assets, liabilities, share capital and reserves were as follows:

	2021	2020
	£	£
Fixed assets	727,786	826,752
Current assets	17,330,489	13,292,102
Creditors: amounts falling due within one year	(9,978,838)	(10,860,062)
Creditors: amounts falling due after more than one year	(3,218,595)	(3,700,004)
	4,860,842	(441,212)
Represented by:		
Share capital and reserves	4,860,842	(441,212)

15 INVENTORIES

	Group		Charity	
	2021	2020	2021	2020
	£	£	£	£
Raw materials and consumables	632,854	330,868	107,121	176,758

16 DEBTORS

	Group		Charity	
	2021	2020	2021	2020
	£	£	£	£
Trade debtors	2,499,193	6,398,013	1,430,374	410,561
Other taxation and social security costs	2,937,958	285,215	156,364	285,215
Deferred tax asset (Note 12)	-	61,155	-	-
Other debtors	448,555	1,697,654	285,030	801,586
Prepayments and accrued income	889,368	765,985	889,368	569,313
	6,775,074	9,208,022	2,761,136	2,066,675

Total debtors include the following, which are due after more than one year.

	Grou	р	Chari	ty
	2021	2020	2021	2020
	£	£	£	£
Other debtors	283,751	283,751	283,751	283,751
Deferred tax asset (Note 12)	-	61,155	-	-
	283,751	344,906	283,751	283,751

17 CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	Gro	up	Cha	rity
	2021	2020	2021	2020
	£	£	£	£
Trade creditors	2,617,732	5,293,171	773,655	2,418,566
Other taxation and social security costs	2,689,715	846,474	-	-
Accruals and deferred income	8,702,965	9,832,847	3,257,919	2,693,864
	14,010,412	15,972,492	4,031,574	5,112,430

18 CREDITORS: AMOUNTS FALLING DUE AFTER MORE THAN ONE YEAR

	Grou	up	Cha	rity	
	2021	2020	2021	2020	
	£	£	£	£	
Accruals and deferred income	3,194,930	3,700,004	-	-	
Other taxation and social security costs	23,665	-	-	-	
	3,218,595	3,700,004			

Included within accruals and deferred income of the Group are creditors of £1,425,355 (2020: £2,990,361) which fall due after more than five years.

Accruals and deferred income of the Group include £476,210 (2020: £492,723) for contributions for the purchase of tangible fixed assets which are analysed as follows:

	Grou	р	Char	ity
	2021	2020	2021	2020
	£	£	£	£
At beginning of year	492,723	270,789	-	-
Received in year	68,099	274,602	-	-
Released to the Statement of Financial Activities	(84,612)	(52,668)	-	-
At end of year	476,210	492,723		
Represented by:				
Amounts falling due within one year	82,211	-		
Amounts falling due after more than one year	393,999	492,723		
	476,210	492,723		

Other taxation and social security costs include deferred taxation of £23,665 (2020: £nil) (Note 12).

For the year ended 30 September 2021

19 PROVISION FOR LIABILITES AND CHARGES

	Group and Charity
Obligations to fund deficit on USS pension	-
At beginning of year	1,769,313
Charge in the year to the Statement of Financial	4,463,007
Activities	4,403,007
At the end of the year	6,232,320

The obligation to fund the deficit on the Universities Superannuation Scheme ("USS") arises from the contractual obligations with the USS to fund deficit payments in accordance with the deficit recovery plan. This provision takes into account estimated future staff levels within the USS scheme for the duration of the contractual obligation and salary inflation. For further information, see Note 25.

20 ANALYSIS OF FUNDS

	At	Income	Expenditure	At end of
	beginning			year
	of year			
	£	£	£	£
Group				
Unrestricted funds				
General	3,619,090	14,270,815	(17,576,909)	312,996
Non charitable trading funds	47,457	9,194,956	(3,986,950)	5,255,463
Capital replacement reserve	500,000	-	-	500,000
	4,166,547	23,465,771	(21,563,859)	6,068,459
Restricted funds				
Imaging Enhancement Project	7,148,918	7,649,423	(10,612,139)	4,186,202
Whole Genome Sequencing Project	940,384	-	(567 <i>,</i> 968)	372,416
Research Analysis Platform	14,742	3,075,203	(2,345,620)	744,325
Seroprevalence Study	78,661	764,683	(784,674)	58,670
Ethics Advisory	-	93,529	(62,646)	30,883
COVID-19 Assay	-	29,619	(29,619)	-
	8,182,705	11,612,457	(14,402,666)	5,392,496
				<u> </u>
Total	12,349,252	35,078,228	(35,966,525)	11,460,955

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 30 September 2021

20 ANALYSIS OF FUNDS (CONTINUED)

	At beginning of year	Income	Expenditure	At end of year
	£	£	£	£
Charity Unrestricted funds				
General	4,119,008	14,460,392	(17,860,534)	718,866
Capital replacement reserve	500,000	-	-	500,000
	4,619,008	14,460,392	(17,860,534)	1,218,866
Restricted funds				
Imaging Enhancement Project	7,147,669	7,649,423	(10,612,139)	4,184,953
Whole Genome Sequencing Project	940,384	-	(567,968)	372,416
Research Analysis Platform	14,742	3,075,203	(2,345,620)	744,325
Seroprevalence Study	78,661	764,683	(784,674)	58,670
Ethics Advisory	-	93,529	(62,646)	30,883
COVID-19 Assay	-	29,619	(29,619)	-
	8,181,456	11,612,457	(14,402,666)	5,391,247
Total	12,800,464	26,072,849	(32,263,200)	6,610,113

Unrestricted funds

Included within unrestricted funds for the Group and the Charity is a Capital Replacement Reserve, which will be used to purchase replacement assets.

Restricted funds

Details of the restricted funds for the Group and the Charity are as follows:

Imaging Enhancement Project

Funding of £53,637,679 has been secured to undertake an imaging study across 100,000 participants as well as a series of repeat assessments on these same participants, including 10,000 repeat imaging assessments. The Funders supporting this project are as follows:

	Total funding
	£
Medical Research Council	27,446,340
Wellcome	20,621,339
The British Heart Foundation	3,000,000
Dementias Platform UK	2,570,000
	53,637,679

For the year ended 30 September 2021

20 ANALYSIS OF FUNDS (CONTINUED)

Imaging Enhancement Project (continued)

This funding is administered as follows:

Wellcome Medical Research Council Dementias Platform UK 42,567,679, 8,500,000 2,570,000

£

53,637,679

As at 30 September 2021 £42,562,952 (2020: £37,823,064) of these funds had been received by the Charity.

Whole Genome Sequencing Project

Funding of £30,000,000 was secured in March 2018 to undertake the Whole Genome Sequencing Project of 50,000 samples. In November 2018, further funding of £4,800,000 was awarded for informatics and data storage relating to the sequencing of these 50,000 participant genomes.

	Total funding
	£
UKRI-MRC	34,800,000

The Medical Research Council administers this funding. As at 30 September 2021 £33,020,000 (2020: £33,020,000) of these funds had been received by the Charity and no further funds are required to complete the project.

Research Analysis Platform

As part of the initiative to complete Whole Genome Sequencing of the whole cohort, the Charity was awarded a grant of £20,000,000 in October 2019 to establish a Research Analysis Platform with storage capacity for these data.

Total funding
£
20,000,000

Wellcome

Wellcome administers this funding. As at 30 September 2021 £3,359,229 (2020: £284,026) of these funds had been received by the Charity.

Seroprevalence Study

In June 2020, the Department of Health and Social Care awarded £3,000,000 to the Charity to carry out a Seroprevalence Study on a proportion of the population infected with the coronavirus that causes COVID-19, by measuring antibody levels in the UK population.

Department of Health and Social Care

For the year ended 30 September 2021

20 ANALYSIS OF FUNDS (CONTINUED)

Seroprevalence Study (continued)

The Department of Health and Social Care administers this funding. As at 30 September 2021 £2,859,962 (2020: £1,684,644) of these funds had been received by the Charity with £nil (2020: £410,635) owing to the Charity at the year-end.

Ethics Advisory

In January 2020, the Charity was awarded £400,000 to develop an ethics advisory service for the Charity.

	Total Funding
	£
Wellcome	200,000
UKRI-MRC	200,000
	400,000

Wellcome administers this funding. As at 30 September 2021 £93,529 (2020: £nil) of these funds had been received by the Charity.

COVID-19 Assay

In February 2021, the Charity commenced a study to collect samples for a COVID-19 Assay, on a cost recovery basis up to a maximum of £40,000.

	Total funding
	£
University of Birmingham	29,619

As at 30 September 2021 £40,000 (2020: £nil) of these funds had been received by the Charity, with £10,381 (2020: £nil) held for future costs.

21 ALLOCATION OF THE CHARITY'S NET ASSETS

The net assets are held as follows:

	Unrestricted	Restricted	Total	Total
	2021	2021	2021	2020
	£	£	£	£
Group				
Fixed assets	4,052,734	3,633,691	7,686,425	10,617,439
Net current assets less current liabilities	9,192,220	4,033,225	13,225,445	7,201,130
Accruals and deferred income	(3,218,595)	-	(3,218,595)	(3,700,004)
Provisions for liabilities and charges	(3,957,900)	(2,274,420)	(6,232,320)	(1,769,313)
	6,068,459	5,392,496	11,460,955	12,349,252

21 ALLOCATION OF THE CHARITY'S NET ASSETS (CONTINUED)

	Unrestricted 2021 £	Restricted 2021 £	Total 2021 £	Total 2020 £
Charity				
Fixed assets	3,334,948	3,633,691	6,968,639	9,800,687
Net current assets less current liabilities	1,841,818	4,031,976	5,873,794	4,769,090
Provisions for liabilities and charges	(3,957,900)	(2,274,420)	(6,232,320)	(1,769,313)
	1,218,866	5,391,247	6,610,113	12,800,464

22 COMMITMENTS

- a) There was capital expenditure of £35,580 (2020: £nil) for the Group and £35,580 (2020: £nil) for the Charity, contracted for, but not provided for in the financial statements at the end of the financial year.
- b) The total future minimum payments under non-cancellable operating leases are as follows:

	Group		Charity	
	2021	2020	2021	2020
	£	£	£	£
Not later than one year	1,364,705	1,248,199	360,856	355,245
Later than one year and not more than five years	5,091,305	4,919,258	1,289,720	1,401,483
Later than five years	6,634,642	7,299,244	872,126	1,121,218
	13,090,652	13,466,701	2,522,702	2,877,946

The operating lease payments charged to the Statement of Financial Activities during the year in respect of these noncancellable operating leases was £1,031,987 (2020: £1,034,779) for the Group and £355,259 (2020: £351,644) for the Charity.

23 GUARANTEES

The Charity was party to a group registration for Value Added Tax ("VAT") purposes until 1 May 2021. As a representative member, the Charity is jointly and severally liable for any VAT liabilities of UK Biocentre Limited, the Company's subsidiary company that is part of the same VAT registration until that time.

For the year ended 30 September 2021

24 RELATED PARTY TRANSACTIONS

Related party transactions are detailed below. There have been no provisions made against any of the transactions at the year-end and no amounts have been written off in respect of these transactions during the year.

Medical researchers access to the Charity's resource

During the year, medical researchers have requested and obtained access to the Charity's resource with fees as follows:

	2021	2020
	£	£
Research data access	1,082,676	1,236,754
Research sample access	1,182,903	974,663
		<u> </u>
	2,265,579	2,211,417

Research data access

Researchers can apply for access to the data generated from the Charity's resource who are charged a fee based on a standard pricing policy. The amount owing at the year-end in respect of these fees was £254,850 (2020: £146,900) with income in advance of £487,583 (2020: £140,700). Related party income within this category are included in the analysis below.

Research sample access

These fees relate to bespoke work for medical researchers using the Charity's resource. The amount owing at the yearend in respect of this income was £152,262 (2020: £253,770) with income in advance of £977,791 (2020: £1,387,313). Related party income within this category are included in the analysis below.

Wellcome and the Medical Research Council

Wellcome and the Medical Research Council are both Members of the Charity and entitled to appoint a Director to the Board.

Unrestricted funds

In February 2017, it was agreed to extend the projects funding by five further years from 1 July 2017 to 30 June 2022 with a total grant award of £31,700,000 to cover this period. This funding was provided by Wellcome and the Medical Research Council and also included funding contributions from the National Institute of Health Research, the British Heart Foundation and Cancer Research UK.

The objectives of this funding remain consistent with those laid out within the Strategic report on pages 5 to 20.

Funding received during the year was as follows:

	2021	2020
	£	£
Wellcome	2,743,192	2,744,777
Medical Research Council	2,743,192	2,744,777
National Institute of Health Research	281,353	281,515
British Heart Foundation	703,383	703,789
Cancer Research UK	562,706	563,031
	7,033,826	7,037,889

24 RELATED PARTY TRANSACTIONS (CONTINUED)

Restricted funds

Specific enhancement projects referred to in detail in Note 20 are based on agreements as follows:

- Wellcome, the Medical Research Council and the Charity will enter into Variation Agreements to the Joint Venture Agreement, agreed in January 2004. Wellcome administers the funding pertaining to these agreements, and
- The Medical Research Council together with the UKRI and Wellcome will enter directly into agreements with the Charity, and administer this funding themselves.

Funding received by the Charity during the year for these projects are as follows:

	2021	2020
	£	£
Imaging Enhancement Project		
Medical Research Council	1,541,061	2,519,119
Wellcome	2,772,379	2,969,652
British Heart Foundation	408,952	438,052
Dementias Platform UK	17,496	17,496
	4,739,888	5,944,319
Whole Genome Sequencing Project		
UKRI-MRC	-	6,117,223
Research Analysis Platform		
Wellcome	3,075,203	284,026
Ethics Advisory		
Wellcome	46,765	-
UKRI-MRC	46,764	-
	93,529	
Total	7,908,620	12,345,568
10(4)	7,900,020	±2,343,308

In addition, the Charity is able to use the facilities of Wellcome for meetings and related services. The charge during the year for the use of these facilities was £1,878 (2020: £8,851) and the amount owing to Wellcome at the year-end was £nil (2020: £13,080) with accrued costs of £nil (2020: £6,539).

For the year ended 30 September 2021

24 RELATED PARTY TRANSACTIONS (CONTINUED)

University of Oxford

Professor Sir Rory Collins, who is the Chief Executive and Principal Investigator of the Charity, is an employee of University of Oxford where he holds the positions of Head of the Nuffield Department of Population Health and BHF Professor of Medicine and Epidemiology.

During the year the services provided and the charges to or by the Charity for those services were as follows:

	2021 £	2020 £
Sales	81 (02	105 122
Research sample access - Cardiac monitoring	81,602 48,912	185,133
Recharge of salaries Research data access	48,912 9,850	40,290 55,650
	140,364	281,073
Purchases		
Developing, producing, delivering and maintaining the Charity's data and Access IT Systems and supporting researcher access to the resource	1,021,138	1,034,670
Expert consultants advice	111,527	108,957
Data Storage and equipment	-	188,000
Recharge of salaries	312,231	377,588
Recharge of travel costs and consumables	1,500	1,359
	1,446,396	1,710,574

The amount owing to the University of Oxford at the year-end was £nil (2020: £8,235) with accrued costs of £62,670 (2020: £70,076) and prepaid costs of £34,697 (2020: £34,461). The amount owing by the University of Oxford at the year-end was £38,856 (2020: £168,488) and income in advance of £14,500 (2020: £900) had been recognised by UK Biobank.

University of Southampton

Professor Anneke Lucassen, is a Director and Trustee of the Charity, was Professor of Clinical Genetics within Medicine at the University of Southampton, and is now Director of the Centre for Personalised Medicine at the University of Oxford. During the year, the University of Southampton supported the Ethics Advisory project to address ethical issues for the Charity (Note 20). During the year, charges from the University of Southampton to the Charity, for these support services were as follows:

	2021	2020
	£	£
Recharge of salaries and support costs	60,806	-
Recharge of consumables	1,840	-
	62,646	-

The amount owing to the University of Southampton at the year-end was fill (2020: fill) with accrued costs of f13,207 (2020: fill).

25 PENSIONS

Charity

The contributions paid by the Charity and included in expenditure in the Statement of Financial Activities are £1,166,810 (2020: £1,037,013) as shown in Note 9. Deficit recovery contributions due within one year for the institution are £265,741 (2020: £138,964).

The latest available complete actuarial valuation of the Retirement Income Builder section of the Scheme is at 31 March 2020 (the valuation date), which was carried out using the projected unit method.

Since the institution cannot identify its share of USS Retirement Income Builder (defined benefit) assets and liabilities, the following disclosures reflect those relevant for those assets and liabilities as a whole.

The 2020 valuation was the sixth valuation for the scheme under the scheme-specific funding regime introduced by the Pensions Act 2004. The statutory funding objective is that the Scheme has sufficient and appropriate assets to meet the amount required, on an actuarial calculation, to make provision for the Scheme's liabilities (the technical provisions).

The valuation took into account that there is not yet certainty over the benefit structure and covenant support measures to be implemented following the 2020 valuation. As such, where relevant (in particular the technical provisions discount rates and recovery plan parameters), two approaches are shown with the outcome depending on whether the anticipated benefit structure reform and covenant support measures are put in place in the expected timescales. The determining criterion is whether a deed is entered into effecting the benefit changes recommended by a resolution of the Joint Negotiating Committee dated 31 August 2021 (or benefit changes which are different in form but that no greater overall level of contributions is required) on or before 28 February 2022. If benefit changes are implemented which are different in form to those set out in such resolution, a revision to the Statement of Funding Principles could be required.

At the valuation date, the value of the assets of the scheme was £66.5 billion and the value of the Scheme's technical provisions was £80.6 billion (if the recommended benefit changes are implemented), or £84.9 billion (if the recommended benefit changes are not implemented). This indicates a shortfall of £14.1 billion or £18.4 billion, a funding ratio of 83% or 78% respectively.

The key financial assumptions used in the 2020 valuation are described below. More detail is set out in the Statement of Funding Principles (which can be found at https://www.uss.co.uk/about-us/valuation-and-funding/statement-of-funding-principles).

Pension increases	<i>Current benefits</i> : CPI assumption + 5bps (for both pre and post 2011 benefits) <i>Increases capped at 2.5%</i> (if applicable following anticipated benefit reform): CPI assumption – 35bps
Consumer Prices Index	In line with the difference between the Fixed Interest and Index Linked yield curves, less RPI/CPI gap (1.1% pa to 2030, reducing linearly by 0.1% pa to a long term difference of 0.1% pa from 2040).
Discount rate	 Pre retirement: Fixed Interest gilt yield curve plus: With anticipated benefit reform: 2.75% Without anticipated benefit reform: 2.0%

Post-retirement: Fixed Interest gilt yield curve plus 1.0%

For the year ended 30 September 2021

25 PENSIONS (CONTINUED)

The main demographic assumption used relates to the mortality assumptions. These assumptions are based on analysis of the scheme's experience carried out as part of the 2020 actuarial valuation. The mortality assumptions used in these figures are as follows:

Mortality base table	101% of S2PMA "light" for males and 95% of S3PFA for females
Future improvements to mortality	CMI_2019 with a smoothing parameter of 7.5, an initial addition of 0.5% pa and a long term improvement rate of 1.8% p.a. for males and 1.6% p.a. for females

The current life expectancies on retirement at age 65 are:

	2021	2020
Males currently aged 65 (years)	24.6	24.4
Females currently aged 65 (years)	26.1	25.9
Males currently aged 45 (years)	26.6	26.3
Females currently aged 45 (years)	27.9	27.7

A new deficit recovery plan was put in place as part of the 2020 valuation and requires the following deficit contributions:

Scenario	Expected Recovery plan duration	Deficit contributions required
The recommended benefit changes are implemented	31 March 2038	From 1 April 2022 – 6.3% of salary
The recommended benefit changes are not implemented:	31 July 2032	From 1 October 2022 to 31 March 2023: 3% of Salary From 1 April 2023 to 30 September 2023: 6% of Salary From 1 October 2023 to 31 March 2024: 9% of Salary From 1 April 2024 to 30 September 2024: 12% of Salary From 1 October 2024 to 31 March 2025: 15% of Salary From 1 April 2025 to 30 September 2025: 18% of Salary From 1 October 2025 onwards: 20% of Salary

The 2021 deficit provision assumes the recommended benefit changes will be implemented. The provision figures also use the following assumptions:

	2021	2020
Discount rate	1.70%	0.94%
Pensionable salary growth	2.00%	2.00%

For the year ended 30 September 2021

25 PENSIONS (CONTINUED)

Group

The total pension cost for the Group was £1,981,848 (2020: £1,237,399). The outstanding contributions at the 30 September 2021 were £137,578 (2020: £47,223).