# Genome Research Limited

## Annual Report and Financial Statements

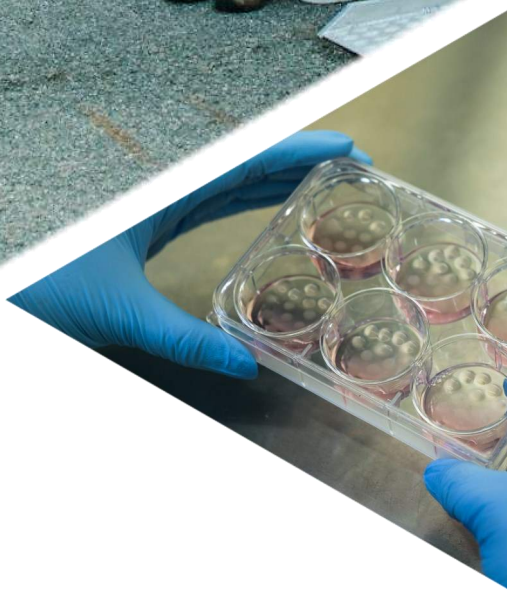
For year ended 30 September 2021

# Introduction







# Financial

# Chief Executive's Introduction

This past year has demonstrated – like no other before it – that no country is an island; we are a global community interconnected by international travel, communication channels, ideas… and disease. Scientific discovery, and the work of this Institute in particular, is no different.

Now, more than ever, collaborative global networks of science are key to delivering the genomic, health and epidemiological data at scale needed to combat the world's ills. Yet vital data may be hidden behind passwords, firewalls and international laws, stifling international genomic inquiry. For these reasons, I am delighted that the Wellcome Sanger Institute is contributing to a wide range of initiatives dedicated to providing open-access data that is equitable to all contributors and sensitive to the diverse cultural needs of participants. From the Global Alliance for Genomics and Health, through the visionary work of International Common Disease Alliance and CancerDepMap, to the databases of the Human Cell Atlas initiative and COSMIC, our researchers are defining and delivering the foundations for future worldwide research.

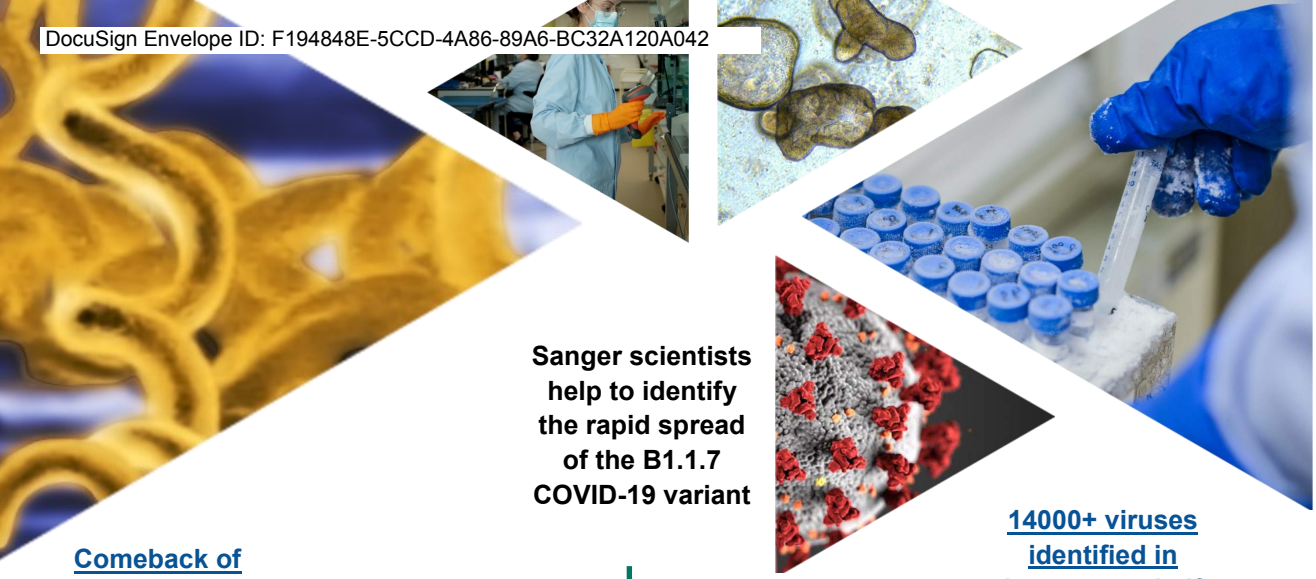
Equally, I am proud of the work of the Institute's staff who have proved that a pandemic cannot stop science, but that science may stop a pandemic. Early in 2020 the Sanger joined the global fight against COVID-19 by providing knowledge, sequencing capacity and funding to the work of the COVID-19 Genomics UK (COG-UK) consortium. Their contribution is truly the Institute in microcosm. From administrative staff in Human Resources and Health and Safety, through Finance and Logistics, to laboratory technicians and bioinformaticians more than 300 staff from all areas of the organisation collaborated to deliver the largest SARS-CoV-2 virus sequencing operation in the world. And the work is still ongoing, our scientists are delivering process improvements and new insights that are benefitting the global genomic surveillance community.

This, in itself, would be a major achievement for any organisation, yet the ingenuity, determination and curiosity of our teams meant that the Sanger Institute continued to deliver fresh insights and create innovations in fields as diverse as cellular competition in cancer and the roots of developmental disease, to the genomic secrets of scallops and inherited resistance to malaria. Many of these insights were delivered by scientists working at kitchen tables or in laboratories under strict COVID-19 compliance rules. That the Institute has continued to deliver world-class science is a testament to their dedication.

However, our staff are not machines, able to blot out the world and its woes. The Institute's strength lies in people's creativity and diversity of experience, ideas and perspectives. From isolated PhD students living away from home to busy families juggling homeschooling and caring for elderly parents, Sanger colleagues faced many challenges to their physical and mental wellbeing. In the midst of this maelstrom, I am delighted that the 'Sanger spirit', first developed during the Human Genome Project, came to the fore with teams not just delivering their science, but finding innovative ways to support and encourage each other with understanding, tolerance and good humour.

As an Institute we have been able to underpin these efforts by providing funding and online support channels to enable flexibility in working hours and project delivery timings, and supply mental health and career development needs. Through extended funding for individuals and scientific projects, combined digital town halls and training channels, and supplemented by online Family events and virtual coffee meetings, I am proud that we have been able to support our most valuable resource – our people.

**Professor Sir Mike Stratton,**
**Director, Wellcome Sanger Institute**
**Chief Executive, Wellcome Genome Campus**





**Sanger scientists help to identify the rapid spread of the B1.1.7 COVID-19 variant**

[COVID-19: Salivary glands identified as virus infection sites](#)

[COVID-19: Virus entry factors are more prevalent in the elderly, men, and smokers](#)

[COVID-19: Genomic surveillance reveals routes of care home transmission](#)

**[Comeback of neglected tropical disease tracked by genomic surveillance](#)**

**[14000+ viruses identified in human gut, half are new to science](#)**

Sanger scientists embedded in UK Lighthouse laboratories to speed transfer of COVID-19 samples

[Sanger Institute joins the Wellcome Leap Global Network](#)

## Oct

[Photo essay goes behind the scenes of Sanger's COVID-19 sequencing operation](#)

[Your Digital Mentor podcast celebrates Black History month](#)

## Nov

[Origins of rare childhood cancer uncovered](#)

[Stand up for science public engagement event live streamed](#)

## Dec

[Cell atlas of tropical disease parasite to aid vaccine research](#)

[Gut cell changes in childhood-onset Crohn's disease discovered](#)

## Jan

[Developmental origins of eczema and psoriasis revealed](#)

## Feb

[MalariaGEN releases largest open-access data resource of malaria genomes](#)

[Lab-grown mini bile ducts repair human livers in genetic first](#)

## Mar

[Search engine for single cell atlases developed](#)

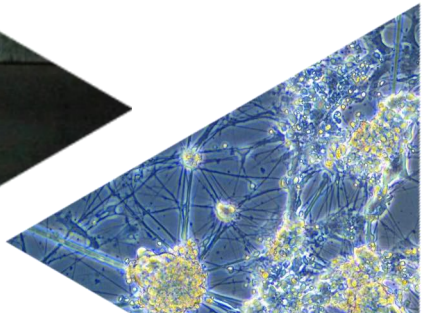
[UKRI funds Connecting Science collaboration to build global genomic surveillance capacity](#)

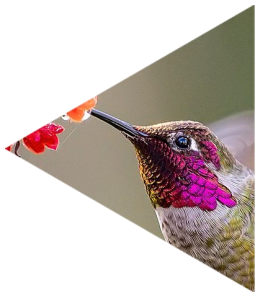
**[Sanger Institute and COG-UK receive £12.2M funding for COVID-19 real-time genomic surveillance](#)**

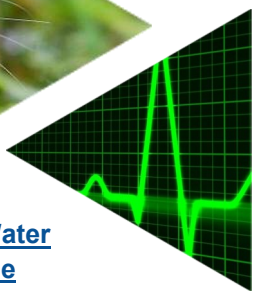
**[Spin-out company KYMAB acquired by Sanofi for approximately $1.1 billion](#)**

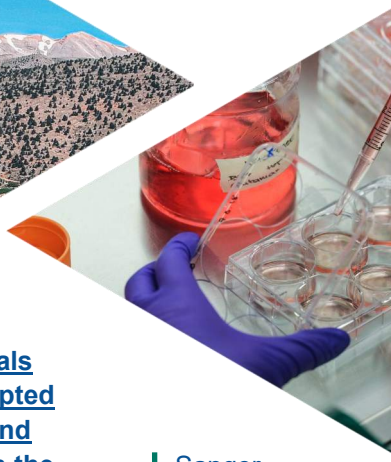
MalariaGEN
GENOMIC EPIDEMIOLOGY NETWORK

**[Genetic link to male infertility identified](#)**









**Vertebrates Genome Project releases 16 high-quality reference genomes**

**Endangered Water Vole genome produced**

**Genomics reveals how humans adapted to agriculture and climate change in the Middle East**

Sanger recognised as Charity Times finalist for outstanding contribution to pandemic response

Rise of multi-drug resistant *E. coli* in Norway tracked

Computer tool integrates genomic and clinical data for precision in cardiovascular medicine

Technical Informatics Committee and ICT strategy away day

**Apr**

**May**

**Jun**

**Jul**

**Aug**

**Sep**

NanoSeq technology enables genetic study of any tissue

Grand Finale of inaugural Wellcome Genome Startup School

Genomic study provides vital insights into how bodies develop from a single cell

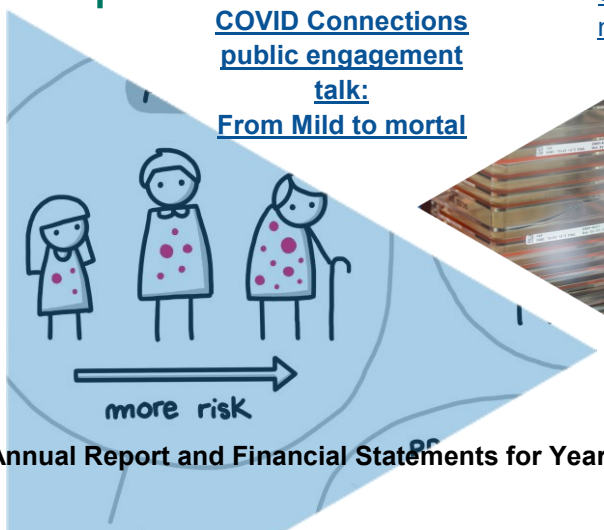
Connecting Science and COG-UK funded to run global COVID-19 genomics training programme

GRL embracing OKRs (objectives and key results) approach after successful trial

Sequencing reveals how bacteria evolve and travel from one gut to the next

Study shows higher rates of mutation alone are not to blame for age related disease


**Connecting Science, H3ABioNet and H3Africa bring large-scale bioinformatics training to Africa**




**COVID Connections public engagement talk: From Mild to mortal**

Organoids: Advances and applications (virtual conference)

# Trustees' Report

The Directors of Genome Research Limited ("the Charitable Company" ) who are also the Trustees of Genome Research Limited for the purposes of the Charities Act 2011, present their Annual Report (including the Directors' Report and Strategic Report) and audited Financial Statements for the year ended 30 September 2021.

The following report sets out how we achieve our charitable objects for public benefit. Our charitable objects are:

- To advance research into investigation of the human genome and to publish the useful results of such research
- To advance scientific and medical research

## Objectives and activities

Genome Research Limited's ("GRL") strategic objectives are:

- Advance understanding of biology using genome sequences and biodata.
- Apply genome science for human health and other societal benefits.
- Foster discussion of the scientific, medical and wider implications of genomes.

## Vision

Motivated by the remarkable challenges and opportunities presented to 21st century science by genome sequences, the ambition of GRL over the next two decades is to strengthen its well-established scientific foundations and to build on them, such that the Wellcome Genome Campus becomes an international centre for scientific, business, cultural and educational activities emanating from Genomes and Biodata.

The objectives are delivered via three main activities as follows:

- Research (via the Sanger Institute)
- Discourse (via Connecting Science)
- Enterprise and Innovation.

## Mission

## Sanger Institute

One of the major challenges and opportunities for biological science in the 21st century is to understand and utilise the DNA sequences that constitute the genetic code of humans and other living organisms.

The Sanger Institute uses genome sequences to increase understanding of human and pathogen biology in order to improve human health.

To achieve this goal, we conduct basic and translational research delivered across five research programmes and two associate research programmes:

- Cancer, Ageing and Somatic Mutation
- Cellular Genetics
- Human Genetics
- Parasites and Microbes
- Tree of Life
- Health Data Research UK (Associate Research Programme)
- Open Targets (Associate Research Programme)

Our scientific niche is in large-scale, high-throughput biology, often incorporating systematic genome-wide screens. This is enabled by major data generation platforms in DNA sequencing, cellular genetics and mouse genetics with an accompanying large IT platform supporting computational data interpretation and analysis.

An overarching theme of our science is genome variation; naturally occurring and engineered, inherited and somatic; explored in human beings, pathogenic microorganisms, human cells and mice. These studies of genome variation will provide insights into human and pathogen evolution, the phenotypic consequences of genome variation and the processes which cause mutations. We will generate deeper understanding of the genetic causes, pathogenesis and epidemiology of human disease, of human development and ageing and of human gene function. We aim to identify therapeutic and vaccine targets and to explore the genomic changes influencing sensitivity and resistance to such agents.

The Sanger Institute sits at the centre of a global network of science, engaging proactively with researchers external to the Institute, enabling and empowering their science and extending our scientific repertoire through their biological insights and questions. A major priority of our research portfolio is the scientific questions arising from the health issues facing low- and middle-income countries. We continue to champion the policy of early and open data release and ensure

resources generated through our research enable the research of others through publicly accessible databases.

## Connecting Science

Connecting Science's mission is to enable everyone to explore genomic science and its impact on research, health and society. It connects researchers, health professionals and the wider public, creating spaces and opportunities to inspire new thinking, spark conversation, support learning, and measure attitudes.

## Enterprise and Innovation

Enterprise and Innovation is the third pillar in delivering our ambitious vision for the Genome Campus. We aspire to:

- grow the Charitable Company's innovation culture
- support the translational and entrepreneurial opportunities that arise from Sanger research
- establish the Campus as a leading location for innovative genome and biodata businesses to benefit from, and contribute to, the exceptional Campus intellectual capital.

Essential to our success is the creation of a diverse and strongly integrated Genome and Biodata community with free-flowing exchange of perspectives across organisations and sectors.

# Strategic Report

## Achievements and Performance

### i) The Sanger Institute

The achievements highlighted below often reflect the results of many years of research. The majority of the Institute's research supports hypothesis -based investigation and the outcome of such activities cannot be predicted with certainty. Scientific research is inherently cumulative and progressive, opening up new knowledge, understanding and applications. However, the highlights below from each programme demonstrate how our people produce valuable information and insight in support of our overall mission.

Research of this scale is a truly collaborative endeavour, both within the Institute, nationally and internationally. It is only through the tireless efforts of researchers on the ground to collect samples and phenotypic data, combined with the sequencing and computational skills of teams around the world, that we can make the advances we do.

To acknowledge the invaluable work of our technicians to deliver our science at scale, we are proud signatories to the Technician Commitment (a sector-wide initiative to pledge support and development to technicians) to develop the talents and careers of our staff and in May 2021 submitted our 2-year self-assessment since becoming signatories in 2018, and outlined a challenging and ambitious 3-year plan.

The Institute opened in 1993 and has been central to many leaps in genomic knowledge and application. However, our archiving and documentation of initiatives and progress over the years is patchy and memories are fading. An interactive timeline has been developed https://www.sanger.ac.uk/about/who-we-are/history-of-the-sanger-institute/ In addition an archivist will be recruited to create an Institute archive to conserve and preserve items of importance to enable us to capture the impact and history of the Institute.

This is second annual report and accounts since the Covid-19 outbreak. COG-UK and Sanger Institute Covid-19 Genomic Surveillance has cemented the utility of genomics in disease outbreaks. However, working under Covid-19 restrictions has presented many challenges with respect to scientific delivery and wellbeing of staff. Staff have also faced challenges with home working, juggling work with family responsibilities and home schooling or facing increased isolation. This has also led to recruitment of Faculty being slower than anticipated and pressures on fixed term projects and PhD students and post-doctoral fellows.

Science at the Sanger Institute always will be an international endeavour and the Institute welcomed the agreement between the UK and the EU as we leave the EU. While we welcome the continuation of visa-free travel for short visits across the EU, the UK's immigration plans remain a concern. The high costs associated with visas and the NHS surcharge means the UK has one of the most expensive immigration systems in the world, which could jeopardise our ability to recruit global talent. Securing a UK-EU adequacy agreement for the free-flow of data information was positive.

Specific Highlights from Sanger Institute scientific programmes from the last year include:

**Cancer, Ageing and Somatic Mutation**

- Combined large-scale drug and CRISPR screens to bring unparalleled insight into how hundreds of cancer treatments work at a molecular level.
- Discovered how the growth of mutant cells that could lead to cancer are actually kept in check by neighbouring cells.
- Developed an artificial intelligence algorithm that uses computer vision to

distinguish between healthy and cancerous tissues.

- Identified cancer 'survival genes' in melanoma uncovering potential new treatments.

**Cellular Genetics**

- Mapped how healthy adult skin develops, cell by cell, revealing causes of inflammatory skin diseases such as eczema and psoriasis.
- Created the most detailed Heart Cell Atlas to date, identifying 11 different cell types and 62 different cell states.
- Uncovered the roots of a rare childhood cancer – bilateral neuroblastoma – showing that it can be due to two tumours that arise independently.
- Produced new computational tools to sift single-cell RNA data from multiple people in mixed samples, helping accelerate research across areas of medicine from transplants to obstetrics to malaria.
- Delivered new research on brain structure highlighting cells linked to Alzheimer's disease.

**Human Genetics**

- Provided the most comprehensive analysis of human genetic diversity to date. Identifying new genetic variation, added missing pieces to the reference human genome sequence and gave insight into our evolutionary past.
- Led global studies to identify more than 7000 regions of the human genome that control blood cell characteristics and risk of developing blood disorders.
- Updated the DECIPHER database to better reflect a disease's genetic complexity for use by scientists and clinicians around the world, and also identified 28 genes newly-associated to rare developmental conditions enabling diagnoses for 500 families.
- Explored and described how inflammatory bowel disease increases cancer risk at the molecular level.

**Parasites and Microbes**

- Created the first cell atlas of mosquito immune cells to understand how mosquitoes fight malaria and other infections.
- Discovered that red blood cells in people who inherit the rare Dantu blood variant have a higher surface tension that prevents infection by the malaria parasite *Plasmodium falciparum*.
- Developed the first cell atlas of the parasitic worm, *Schistosoma mansoni* providing an instruction manual that will enable research into vaccines and treatments.
- Created a detailed atlas of immune and bacterial cells in the human colon offering new insight into how the body balances beneficial bacteria with preventing disease.
- Mapped the evolution of endemic and epidemic strains of cholera-causing bacteria in Argentina, which influenced Argentine public health policy.

**Tree of Life**

- Produced the first high-quality Eurasian otter genome and sequenced and assembled the genome of the king scallop, and made these reference genomes freely available to the scientific community.
- Initiated the Aquatic Symbiosis Project to genome sequence 1000 marine and freshwater species and better understand marine symbiotic partnerships.
- Generated a genome sequence for *Hepatocystis* – these are single celled organisms closely related to *Plasmodium* species that cause malaria, but infect monkeys, bats and squirrels.

**Impact Framework**

The Sanger Institute uses genome sequences to increase understanding of human and pathogen biology in order to improve human health. The Institute's contributions to achieving its mission are captured in an impact framework, which seeks to demonstrate and articulate the impact of the activities taking place across GRL. The impact framework articulates nine ambitions that underpin the GRL activities in delivering its mission. The scale of Sanger science and the cutting-edge research that takes place here means that GRL takes on projects of a scale that has never been possible before and moves away from projects once they become mainstream, in order to break new ground once again. This approach, driven by scientific freedom, does not lend itself to traditional monitoring using quantifiable indicators. However, we use some metrics to enable organisational comparisons can be used to articulate the context for underpinning themes of GRL strategy, including research outputs and data sharing, as described below.

In order to support the operational delivery of our scientific ambitions, GRL has piloted Objectives and Key Results (OKRs) during the year. OKRs is an approach to team objective setting designed to focus and align everyone's efforts towards delivering the organisation's strategic mission, by identifying priority objectives and setting measurable targets. Following the successful trial of the programme, OKRs is now being rolled out across all operational departments.

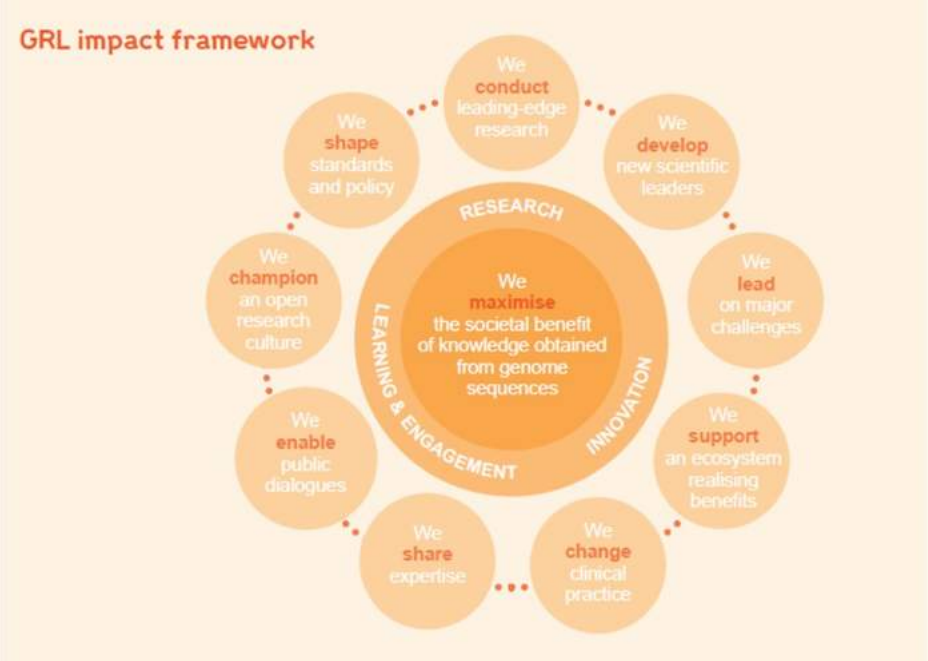
**Research Outputs**

Genomic research is at the core of the Sanger Institute. Researchers focus on identifying new frontiers of biology to be explored through

**Bibliometric analysis**

| Metric | 9 months to 30 Sep 2021 | Year Ended 31 Dec 2020 | Year Ended 31 Dec 2019 | 5 year average |
|---|---|---|---|---|
| Field-Weighted Citation Impact* | 4.49 | 4.13 | 3.60 | 3.87 |
| Scholarly Output | 463 | 581 | 602 | 587 |
| Citations per Publication (mean average #) | 4.2 | 21.7 | 12.8 | 35.5 |
| Output in Top 5% Citation Percentiles (field-weighted) | 19% | 23.6% | 27.4% | 23.5% |
| Output in Top 1% Citation Percentiles (field-weighted) | 8.2% | 9.3% | 9.6% | 9.5% |

**Ratio of citations compared to global average in field of genomics. 1= global average.*




genome sequences. By being experts in aggregation, analysis and interpretation of genomic data at scale, Sanger researchers are able to contribute foundational knowledge for the academic community. New findings and data are commonly shared through a variety of mechanisms, commonly in a form of publications in peer-reviewed academic journals. Our practice of monitoring publications focuses specifically on research articles and reviews as these are the publication types that best reflect primary research carried out by Sanger authors. Conducting leading-edge research is one of the impact ambitions, and we use a set of five bibliometric indicators to help evaluate published research. We also benchmark ourselves against other organisations with similar scientific profile or structure, and monitor long-term trends in order to understand what constitutes a 'good' performance for the Institute. The publication data follows a calendar year reporting period. The table on page 10 shows the data for the 5-year average (2017 -2020), the data for the most recent complete data collection period (the year ended 31 December 2020), and the data for 2021 so far.

Genome sequencing at the Institute has increased to reach a new record, with over 14 Petabases of genomic sequences in the current financial year alone, up from 9.8 Petabases in 2019-2020. This exemplifies the Sanger science being conducted at ever increasing scale and in tandem with the development of technology. This particular increase is being largely driven by the Sanger Institute's ongoing contribution to the global genomic surveillance efforts, with Sanger delivering the largest SARS-CoV -2 virus sequencing operation in the world (see page 12).

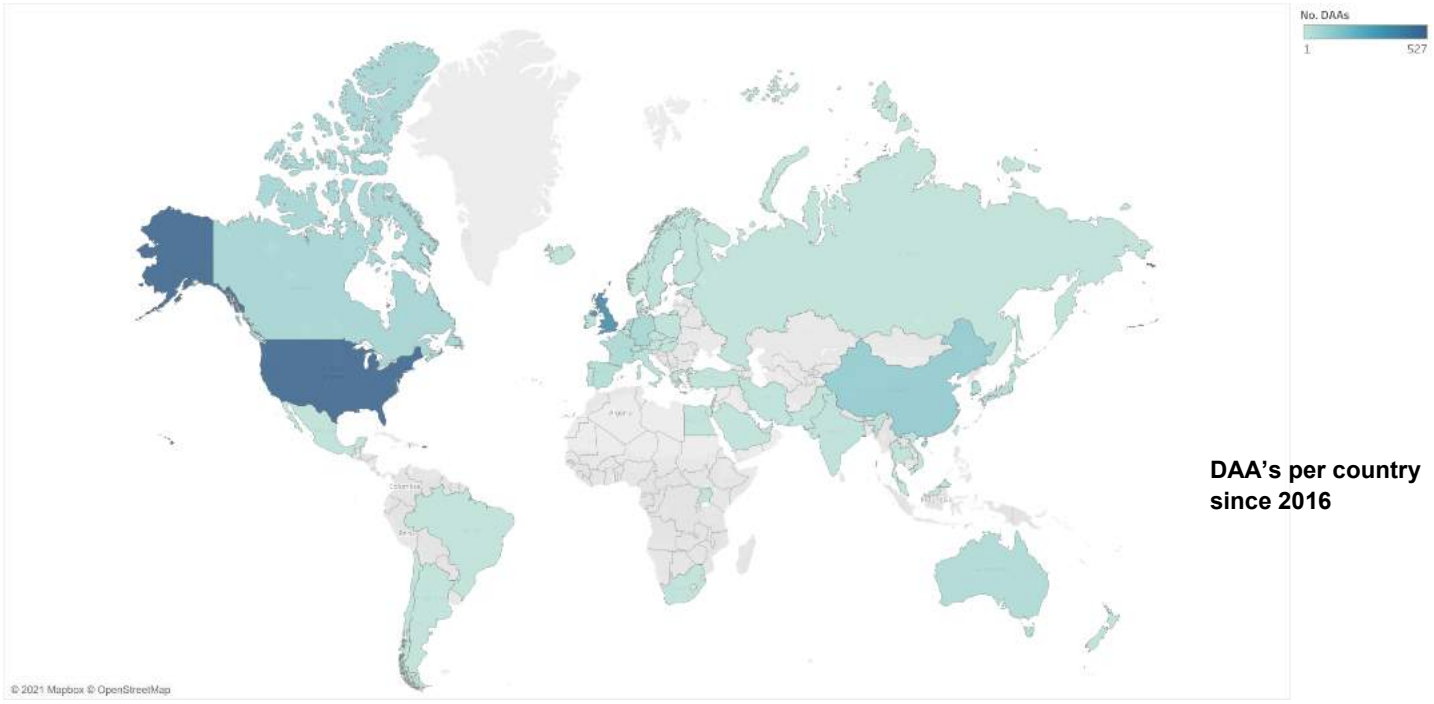
**Data Sharing**

The research conducted by the Sanger Institute results in a vast amount of data produced, which is shared widely and as effectively as possible. Open access to our data and resources has been championed from the start. Data Access Agreements are used to safeguard ethical use of the human data.

In the last 5 years, the Sanger Institute has approved 1,688 different Data Access Agreements (DAAs) for human data with 52 countries as seen in the map below; 179 of these had been granted between January and September 2021. Data requests come from all over the world, but the majority from the organisations based in the USA and the UK. The map provides an illustration of how successful we have been in sharing the data, and areas we would like to improve our reach. Requests for data tend to come mostly from universities and research institutes (combined 80 per cent) and the rest from hospitals and commercial entities.

**Faculty**

Over the past year we have published 500 (2020: 603) research papers in peer -reviewed journals, of which 149 (2020: 180) had a Sanger Institute first and/or last author, which means they were either the leading author or the lead investigator for the study. Three quarters of Sanger publications are a result of collaborative partnerships, and authors




**DAA's per country since 2016**

from the Sanger Institute have been leading contributors to a significant proportion of these publications.

Sanger Institute's research is highly cited, which indicates the usefulness of the research findings to other researchers working in the field. The Institute was recognised in the annual Highly Cited Researchers 2020 list, a report published by Clarivate that identifies more than 6,000 researchers who have published multiple highly cited papers in their respective fields during the last decade. With 25 researchers affiliated with the Sanger Institute in the past decade, Sanger Institute is among the top 6 research organisations, and the only research institute in the UK, that has made the shortlist of top ranking institutions.

**Research Training**

The Sanger Institute provides an exceptional intellectual environment and infrastructure for training and inspiring the next generation of leaders in genomics research. In order to capture the broad range of career outcomes in a systematic way, the Sanger Institute has completed the first round of the Postdoctoral Fellow career tracker. Over time, this annual survey will provide a rich longitudinal data source to help identify the facilitators and barriers to career progression, enable a better understanding of the career trajectories of our former postdoctoral fellows, and the findings will be used to improve the programme for future cohorts.

The Institute currently has over 100 postdoctoral fellows, on time-limited appointments of 3-5 years, from 30 countries supported by core funds and funding agencies. The Sanger Institute has extended the contracts of the postdoctoral fellows to alleviate the challenges experienced due to the COVID-19 restrictions.

**Graduate Programme**

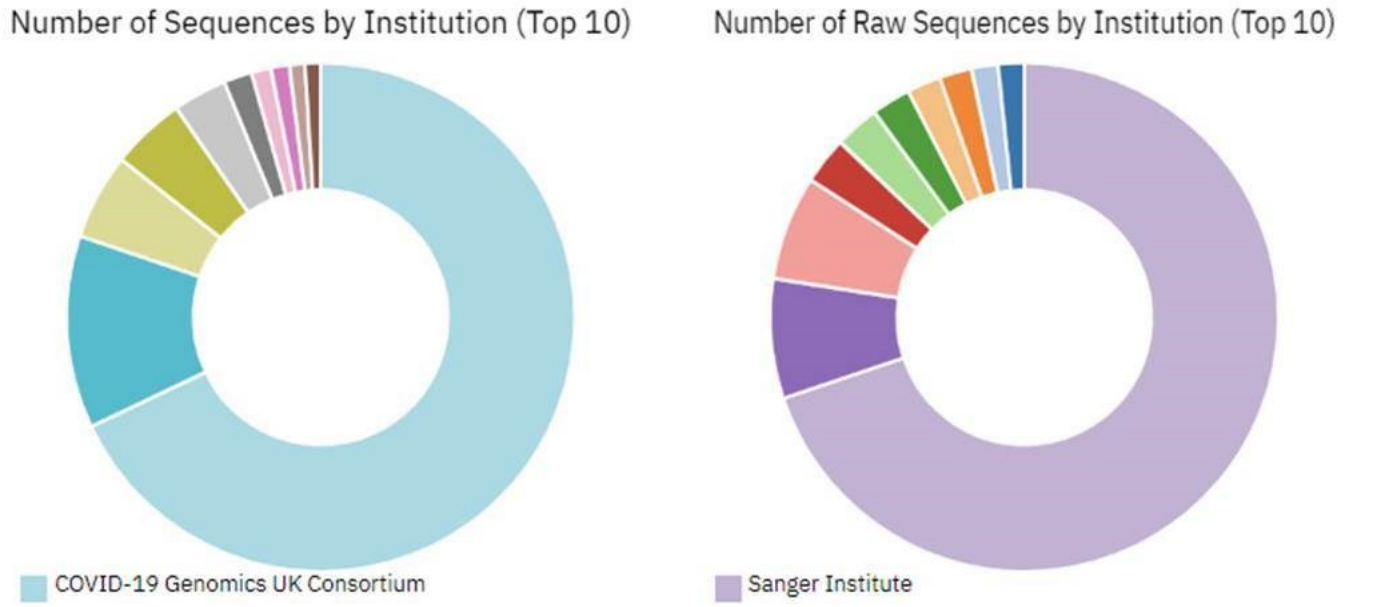
The Graduate Programme aims to inspire and train the next generation of leaders in genomic research. It is affiliated with the University of Cambridge, and our students graduate with a Cambridge degree, a globally recognised mark of excellence.

Specifically we operate a four-year PhD programme which accepts 12-13 graduate students each year from across the world. We are also part of the University of Cambridge three-year clinical PhD programme (jointly funded by ourselves and Wellcome), and usually accept 2-3 registrar-level clinicians per year through this. We also accept a small number of students each year from several other University of Cambridge-based PhD programmes. In addition, we have recently established an MPhil Programme which aims to recruit three students per year from low- and middle-income countries.

Including those funded by third parties, we currently have 73 PhD students and 4 MPhil students from 29 countries.

Since we began collecting submission data, 12 years ago, our PhD students have maintained an average four-year submission rate of 89% (2020: 89%), far exceeding the

**SARS-CoV-2 sequence data submissions as at October 2021**




Source: www.covid19dataportal.org/statistics

70% threshold expected by the Research Councils. Our most recent submission data takes into account the fact that around half of our students have been granted official submission deadline extensions (of up to six months), due to the effects of the COVID-19 pandemic on their research.

**Scientific Operations**

We deliver high-throughput, large-scale biological research, which is a defining characteristic distinguishing our science from that of most research institutes and universities. Generating data and resources for conducting science at this scale is critically dependent upon major core facilities and high-throughput processes organised into complex platforms and pipelines. These require substantial infrastructure, subject matter experts and professional organisation and management.

The Institute currently has three core platforms:

· Sequencing facility

· Cellular Biology facility

· IT

In May 2019, the Institute announced the strategic decision to close the animal facility and mouse pipelines, and to deliver future animal work, outsourced, through partnership with other organisations. The closure was completed in September 2021.

**COVID-19 Genomics UK (COG-UK) Consortium**

The COG-UK Consortium is an innovative partnership of NHS organisations, the four Public Health Agencies of the UK, the Wellcome Sanger Institute and more than 12 academic institutions providing sequencing and analysis capability. Virus genome data are combined with clinical and epidemiological datasets in order to help to guide UK public health interventions and policies. Subsequent analyses enables evaluation of novel treatments and non-pharmalogical interventions on SARS-CoV-2 virus populations and spread, and provide information on introductions versus community transmissions and outbreaks.

This data allows researchers to identify and evaluate emerging genetic changes and understand how those variations affect the ability of the virus to transmit from person to person, and cause severe forms of the disease. The Sanger Institute is providing a centralised service for large-scale genome sequencing of samples from the 'Lighthouse Lab' National Testing Centres, as well as providing support to the regional sequencing labs and areas not covered by regional labs. Since March 2020, when the project was initiated, Sanger has sequenced more than 750,000 SARS-CoV-2 samples to the end of September 2021 and has committed to continue sequencing up to 64,000 a week until March 2022.

**UK Biobank Projects**

The Scientific Operations team is helping to produce 500,000 whole genome sequences from UK Biobank volunteers, along with DeCODE genetics. This £200 million partnership will sequence the participants' genomes and link this with comprehensive clinical characterisation to help provide unique insight into why some people develop particular diseases.

The project was put on hold during the campus closure, when we could only safely undertake COVID-19 research; despite the temporary pause in processing, and due to the coordinated efforts of Sanger, DeCODE and UK Biobank, the project is still expected to complete by December 2021, 3 months later than originally planned. It is expected that sequencing data for this entire cohort will be generally accessible by early 2023.

**Resources for the research community**

In addition to their contribution to the UK Biobank and COG UK projects, Sanger Institute scientists generate a wide range of biological resources to support research conducted by our Faculty or collaborators. All are subsequently released for the wider research community to use, together with relevant and appropriate metadata. Biological resources include normal and cancer organoids and human iPS (induced Pluripotent Stem) cells.

Genomic science generates vast volumes of biological data and, in order to curate, organise and present data, we established publicly accessible databases and organised data resources. These include Decipher, COSMIC and others.

To deliver truly seamless sharing of genomic and clinical data, we actively support the work of the Global Alliance for Genomics and Health ("GA4GH") to create the protocols and frameworks needed to open up the world's genomic databases to the global scientific community. Through innovations such as GA4GH Passports and Data Use Ontology, the process to gain access to much-needed data will now take a matter of

days instead of weeks.

## ii) Connecting Science

An overview of some of our work over the past year can be found at https://connectingscience.wellcomegenomecampus.org/what-we-do/.

Our focus over the past year has remained on our two core areas of interest – Learning and Training, and Engagement and Society. We have consolidated our learning during the early stages of the pandemic to deliver an effective digital programme across these areas. We have not yet been able to deliver more in person events. It is a different offer, and a digital environment has generally been unable to support close personal interactions and the serendipitous meetings that occur during in-person activities, but it has enabled us to significantly increase our reach by providing more opportunities for knowledge sharing and skills development.

**Learning and Training:** We have developed and delivered 21 (2020: 15) virtual research conferences, 22 (2020: 12) virtual courses, 10 (2020: 2) virtual global training events specifically for participants in low and middle-income countries, and 11 online courses in partnership with FutureLearn. These events have covered genomics-related topics of relevance to research and healthcare professionals from antimicrobial resistance to genetic counselling, and have collectively reached around 50,000 individuals (with the majority accessing our online training courses).

**Engagement and Society:** Continuing analysis of the results from our global study on public attitudes to genomic data and privacy, *Your DNA, Your Say*, has revealed further insights around trust and perceptions of trustworthiness. The global variation in attitudes to who is trusted to access genomics data, and how they demonstrate their trustworthiness, is a reminder of the importance of local social and cultural contexts when considering research work involving genomic data, as well as ensuring transparency around the beneficiaries of this research. We have also commenced a new project to explore the language used as descriptors of race and ethnicity in genomic research, and public and community perspectives on these.

## iii) Enterprise and Innovation

The Sanger Institute's Technology Translation team identifies, nurtures and de-risks novel research ideas that have the potential for societal impact beyond publication. Its goal is to attract partners with the resources and capabilities to then deliver products and services.

The Institute has a culture and history of scaling technologies in a manner that supports innovation. Some of these capabilities have become spin-out companies that are making a positive impact in the healthcare sector. We currently have the following spin-outs, held as programme investments:

- Congenica
- VHsquared
- Microbiotica.

Each of these companies has been impacted by the pandemic to some degree, however, while Congenica and Microbiotica continue to raise funding and develop their platforms, one of our investments, VHSquared has faced significant intellectual property challenges that prohibit further in house development of their key programme. The company is currently focussed upon licensing its lead asset. If it is successful it is anticipated that GRL will retain an interest in the progression of that molecule.

In addition to the investments, following grant funding from Innovate UK, GRL incorporated a new subsidiary- Mosaic Therapeutics - in July 2020 to leverage Sanger's expertise in generating and analysing large datasets from the manipulation of tumour models in order to identify new approaches to targeting difficult to treat cancers.

In April 2021, our first ever spinout, Kymab Limited, was sold to Sanofi Inc, for a total of $1.1 billion, with a potential for additional payments up to $350 million upon achievement of certain milestones. GRL received £8.0m in relation to the sale of this investment.

COSMIC (Catalogue of Somatic Mutations in Cancer), currently a team within GRL, has been successfully incubated within Sanger, reaching breakeven through a commercial licensing model that charges company for access to the COSMIC database whilst maintaining free access to all not -for-profit users. We are in the process of considering options to establish COSMIC as a wholly owned subsidiary with a dedicated governance and leadership structure that reflects its commercial model.

Interest from Genome and BioData companies seeking to co-locate on Campus and be part of our growing community of innovative businesses in this space continues to be high with competitive applications for the seven spaces which became available this year. We anticipate that the Biodata Innovation Centre (BIC) will return to 100% capacity by the end of 2021 with eleven organisations from the private and public sector. Our tenants, from Campus spin-out companies, start-up companies, through Genomics England Limited activities, to organisations from mainland Europe and Asia, represent diverse aspects of the genomics and biodata value chain. Feedback continues to be positive, however we are aware that companies will continue to review their working arrangements as a result of COVID-19 so moving forwards the space required by individual companies may be reduced; providing opportunities to other companies.

We have continued our focus on building a sense of community within the BIC and stimulating engagement with the wider Campus and continue to review how our value proposition will evolve post-COVID. We have recently recruited a Client Relationship Manager to lead this activity. Broader efforts to inspire Campus entrepreneurship are continuing through joint events with relevant network groups including accelerator

programmes and scientific researchers and with peer research institutes such as the Francis Crick and Alan Turing Institutes. Our major focus this year was to engage more of our research scientists on Campus in exploring entrepreneurship as a career and to develop their own genomics and biodata opportunities. To this end, we launched our inaugural Startup School for Genomics and Biodata with 24 participants from across both Campus research institutes in a four-month virtual but highly interactive programme enabling them to develop both entrepreneurial skills and 12 new ideas with the support of genomics and biodata entrepreneur role models and guided by expert mentors.

## Statement by the trustees in performance of their statutory duties in accordance with s172(1) Companies Act 2006

The Board of Directors of Genome Research Limited consider, in good faith, that they have acted in a way that would most likely promote the success of the Charitable Company, to achieve its charitable purpose, and in doing so have regard (amongst other matters) to –

(a) the likely consequences of any decision in the long term,

(b) the interests of the Charitable Company's employees,

(c) the need to foster the Charitable Company's business relationships with suppliers, customers and others,

(d) the impact of the Charitable Company's operations on the community and the environment,

(e) the desirability of the Charitable Company maintaining a reputation for high standards of business conduct, and

(f) the need to act fairly as between members of the Charitable Company.

As part of their induction, Trustees are briefed on their duties, either through the Charitable Company, or if they judge it necessary, through an independent advisor. Further details on how the Board fulfils its duties can be found in the governance, structure and management section on page 20. The Board receive regular updates on each of the areas below, and request presentations from management as required.

The Charitable Company has many stakeholders, however the Board consider the most significant to be its employees, its collaborators, the community and the Wellcome Trust.

***Consideration of the consequences of decisions for the long term***

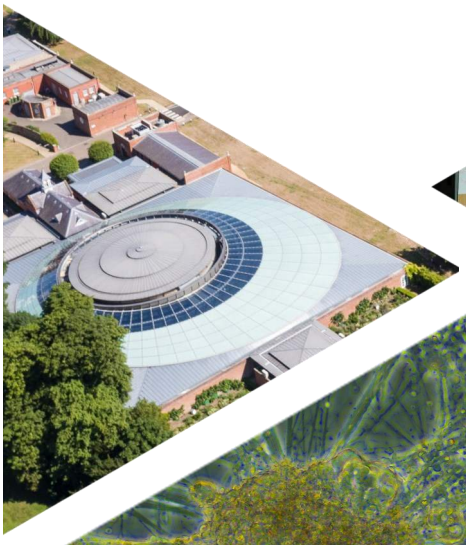
GRL's vision is underpinned by a long term strategy for the Wellcome Genome Campus to become an international centre for scientific, business, cultural and educational activities emanating from Genomes and Biodata. The Board are required to approve the 5 year funding envelope, the annual budgets, any large or strategic projects, or significant diversions from the budget, such as the COG UK collaboration (page 13). In doing so they consider this in the context of Wellcome and GRL's long term strategy.

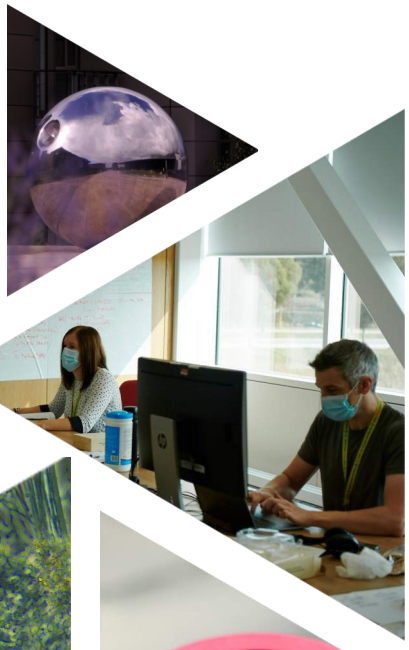
***Engaging with our employees***

The Sanger Institute's success is founded on the expertise and knowledge of its people. Our employee engagement strategy is based on four principles – that employees have a voice, receive recognition, have a sense of purpose and are supported to grow and feel successful.

During the year, the GRL Board completed an Inclusive Leadership training programme, to align with similar training conducted with the Board of Management and which aims to ensure an inclusive mind-set and approach is achieved at all levels of GRL.

GRL has actively sought new ways for the Board to improve their engagement with employees during the year, and this is a key part of the Governance strategy. During the year, our Chair, a member of the government's Scientific Advisory Group for Emergencies until November 2021, attended one of several all staff





Town Hall video meetings and provided perspectives on the global pandemic and the importance of the genomic surveillance work that is led here. We have also heard from Cilla Snowball, reflecting on the importance of our culture, equality and inclusive leadership.

The Board continue to receive regular updates on our Culture Development Programme, including a summary report of the results from our last Great Place to Work full employee survey and any other key milestone delivered.

GRL's Employee Partnership, comprised of elected representatives and the 'Your Ideas' portal are two of the ways in which employees can raise concerns and make suggestions for improvement. As a result of ideas raised in these forums, over the last year GRL has provided free access to the 'Headspace' mindfulness app, hosted wellbeing workshops covering topics such as eating disorders and gardening for relaxation and improved catering options available on site.

Refer to People Development and Engagement (page 24) for further details of how we have engaged with our employees during the year, and Health and Safety (page 23) for more about actions taken to support employees both based at home or on Campus.

The Charitable Company has not participated in any government funded COVID-19 support schemes, including the Coronavirus Job Retention Scheme.

***Engaging with our suppliers and scientific partners***

Collaborating with genomic scientists and researchers worldwide is fundamental to the scientific strategy of the Charitable Company. We work closely with our suppliers to share new discoveries and techniques. In establishing the COG-UK Consortium (page 13) we worked closely with suppliers, government bodies and academic institutions to develop new technology and networks at pace. Our procurement policy is governed by our Purchasing Code of Ethics and we aim to ensure that our suppliers are treated fairly and impartially.

***Engaging with the Wellcome Trust***

GRL's sole member is the Wellcome Trust Limited, as corporate trustee of the Wellcome Trust and has the right to appoint directors to the GRL Board. Wellcome Trust is represented on the Board, which is chaired by its Director, Sir Jeremy Farrar. GRL receives funding from the Wellcome Trust via a five year funding envelope which is aligned to Wellcome's long term scientific strategy. GRL provide regular reporting, both financial and non-financial, to Wellcome directly, and through updating their representatives on the GRL Board. GRL work collaboratively with the Wellcome Trust, sharing both scientific and operational expertise.

***The impact of the Charitable Company's operations on the community and the environment***

We engage closely with our neighbouring communities on environmental issues including:

- Permissive path for local residents to enjoy the Wetlands Nature Reserve on site
- Local residents sit on the Wetlands Community Conservation Group that meets at least twice a year
- Liaise with local residents on parking and transport issues

Refer to the Environmental Statement on page 23 for further details.

Connecting Science (refer to page 14) works with both professional and public communities, linking these together to enable everyone to benefit from genomic science. Our public and schools education programmes have continued digitally, with new initiatives specifically targeted at Black students and schools with diverse student demographics, to support the development of STEM careers. And Our Genome Lates events have continued conversations around genomics and related topics, with researchers from the Sanger Institute participating in a range of panel and Q&As.

***Maintaining a reputation for high standards of business conduct***

Sanger Institute's Research Policies are designed to provide guidance to help researchers navigate the legislation relating to their research and to ensure that research is ethical and legal. Our research should embody the core values of the Institute and Wellcome, reflecting our commitment to a research culture founded on honesty, integrity and respect in order to create an open environment of creative exchange of ideas and views. Researchers at the Sanger Institute have the responsibility to be aware of which Research Policies apply to their research and to ensure they and their teams are compliant with them. In October 2020, mandatory training was introduced for all employees, including Good Research Practice for all scientific staff. Further information regarding our research policies can be found on our website.

## Financial review

### Results

This is the fifth and final year of the 2016-2021 quinquennium award from Wellcome which GRL can draw down as required to meet its objectives as set out in the 2016-2021 scientific plan.

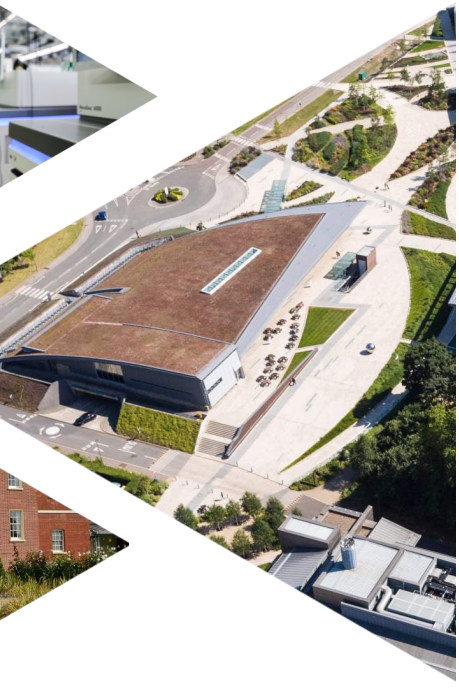
The net surplus for the year, after other recognised gains of £67.3 million (2020: £16.3 million gains) was £81.0 million (2020: £0.8 million surplus). Other recognised gains have arisen due to the accounting requirements of the defined benefit pension scheme.

Income for the year totalled £221.5 million (2020: £156.4 million) of which 51% (2020: 60%) was provided by

Wellcome. The Charitable Company has seen an increase in grant funding and other trading income following the closure of the campus and cessation of all but essential operations for several months during the year ended 30 September 2020. Income from other trading activities has increased to £76.2m (2020: £43.7m) as a result of work performed on the UK Biobank projects and COVID sequencing on behalf of the UK Government (page 11). Investment income totalled £8.1m (2020: £nil), following the sale of shares of a programme related investment.

Expenditure in furtherance of its activities totalled £207.9 million (2020: £171.9 million). Net income for the year was £13.7 million (2020: £15.5 million net expenditure), arising as a result of investment gains and income received on grants in relation to capital expenditure, which is depreciated over a number of years.

The defined benefit pension scheme deficit of £133.2 million (2020: £198.8 million) representing the year-end funding position of the scheme is recognised in the financial statements as a 'pension liability' on an FRS 102 basis. This deficit represents the difference between an assessment of the liabilities of the pension funds and the current value of their underlying assets. The amount of the deficit is subject to considerable variability because it depends on a valuation of assets at the year-end date and a range of actuarial assumptions impacting the liabilities.



In 2021 there has been a 0.25% increase in the discount rate assumption reflecting the increase in long-dated corporate bond yields. FRS102 requires discount rates to be based on corporate bond rates of an appropriate duration, regardless of actual investment strategy and actual investment returns expected. The major assumptions used by the actuary are shown in note 8.

A full triennial actuarial valuation of the Genome Research Limited Pension Plan was carried out as at 31 December 2018. This valuation showed that the plan had a deficit of £3.3 million. Additional contributions of £5 million were made in the year ended 31 December 2019 which aimed to eliminate the funding deficit.

In April 2021 the Charitable Company announced that it was starting a consultation on a proposal to close the defined benefit pension scheme to further accrual. The closure took effect as of 1st October 2021. A gain on curtailment of £11.4 million has been recognised in the year ended 30 September 2021, as a reduction in expenditure.

Wellcome and GRL previously agreed with the GRL Pension Plan Trustee to put in place a Deed of Guarantee. The obligations of the Deed, guaranteed by Wellcome, are that GRL pays the necessary contribution as agreed with the Trustee and the Plan Actuary and that any deficit in the funding identified by a full actuarial valuation will be repaid over a period of five years or less. The Deed provides security to the pension scheme and allows the Pension Trustees to take a longer-term view when deciding their investment strategy.

## Post balance sheet events

On 1 December 2021 a decision was made by the project steering board to terminate the planned construction of the new modular building for sequencing. As at 30 September 2021, the Charitable Company had incurred costs of £0.9 million in relation to design fees and materials, held as assets in the course of construction on the balance sheet. It also had committed costs in relation to this project of £2.2 million. It is likely that the Charitable Company can negotiate a reduction in these costs or that materials, particularly steel, can be repurposed or sold, however this is uncertain.

## Reserves policy

Total net assets at the end of the year were £43.1 million (2020: £37.8 million net liability), after accounting for the pension deficit of £133.2 million (2020: £198.8 million). As referred to above in the results section, this is due to the FRS 102 valuation of the defined benefit pension scheme. Total funds (excluding the pension deficit) at the end of the year were £176.6 million (2020: £161.0 million).

The restricted income funds of £157.4 million (2020: £150.7 million) consist of capital funds for buildings and capital equipment, and a research fund. The year-end fund balances on the capital funds represent the net book value of the tangible fixed assets purchased from those funds. The balance on the year-end research fund represents restricted income funds available to spend in furtherance of its charitable purposes. The balance on the endowment fund of £0.7 million (2020: £0.7 million) represents funds for activities specified by the donor. The movement on reserves is shown in note 21 to the financial statements.

Unrestricted investment funds of £4.5 million (2020: £1.7 million) relate to gains on unquoted investments less amounts owing to staff and inventors in relation to these gains. Investments are measured at fair value and as such are subject to variability.

The unrestricted income funds of £13.8 million (2020: £7.9 million) represent funds generated from external sources that can be allocated at the discretion of the directors, including sequencing as a service, licence fees, royalties, tenant services and exchange gains and losses.

As the Campus activities develop, more activities will generate, and be supported through, unrestricted funds. As a result Directors consider that a low level of unrestricted funds is acceptable. As activities develop, Directors will establish a more detailed target. Wellcome provides sufficient funding to enable the Charitable Company to finance its general activities and meet its

obligations as they fall due. This funding structure is reviewed every five years.

## Expenditure policy

For planning purposes an annual budget is agreed with Wellcome. The GRL Board monitors the expenditure of GRL and provides oversight of the internal budgetary and financial control mechanisms in place.

## Programme Related Investment Policy

GRL invests in spin-out companies, held as programme related unquoted investments, the objective of which is to maximise opportunities for scientific growth, over and above maximising financial gain on investment.

## Pensions policy

GRL operates a funded defined benefit scheme and a defined contribution scheme into which both employee and employer contributions are paid. There is further disclosure in note 8 to the Financial Statements and in the results above.

## Grant making policy

GRL works collaboratively with scientific organisations all over the world. As a result, we may sub-award funds to partner organisations who have the scientific expertise to help us deliver our research. These awards are only made with the explicit consent of the funding body.

## Going Concern

GRL's total net assets at the end of the year were £43.1 million (2020: £37.8 million net liability); after the pension deficit of £133.2 million (2020: £198.0 million) however, as described above, this has arisen due to the accounting requirements of the defined benefit pension scheme. The latest full funding valuation of the scheme indicates that GRL's current schedule of contributions is sufficient to meet the requirements of the scheme. Total reserves before the pension deficit were £176.3 million net assets (2020: £161.0 million). The Charitable Company had net current assets at the end of the year of £26.1 million (2020: £18.7 million).

As the 2021-26 quinquennial funding review has not been able to be completed due to delays relating to the COVID-19 pandemic, Wellcome have awarded Sanger £238.2 million interim funding for the 2 years from October 2021, which is therefore sufficient funding for at least 12 months from the date of signing these financial statements. The award was made after considering Sanger's committed costs, cash flow forecasts and proposed budgets for that period. The 2021-26 scientific strategy review was completed during the year, and the formal award is expected to granted in early 2022.

There continues to be uncertainty over the ongoing impact of the COVID-19 pandemic, however GRL do not anticipate any further significant restrictions on their science. In the event of further lockdowns, GRL are able to carry forward and reallocate underspend of the Wellcome core award, which covers underlying running costs. Management have sufficient discretion over the spend to ensure expenditure remains within budget.

GRL do not commit to set levels of activity on third party awards. In the event that we wished to support a study beyond the terms of the grant, we would only do this if there were sufficient budget in the core award. Trading contracts are agreed on commercial terms, in such a way that, as a minimum, all costs are recovered and GRL is not exposed to significant working capital deficits.

In assessing whether the going concern assumption is appropriate, management takes into account all available information which is at least, but is not limited to, twelve months from the date when the financial statements are authorised for issue. After considering the 2021-22 budget and strategic plan for 2021-2026, income under trading contracts and the 5 year award from Wellcome for 2021-2026, the Directors are satisfied that it is appropriate to adopt the going concern basis in preparing the financial statements of GRL.

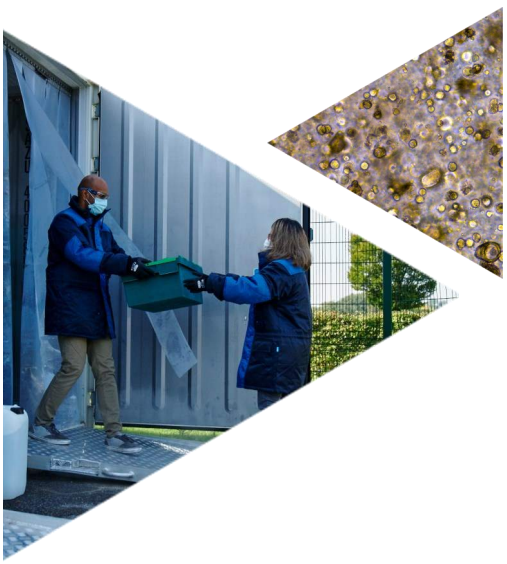
## Plans for future periods

GRL and partner organisations at the Wellcome Genome Campus will continue to provide a foundation of genomic activity in the UK to maximise scientific, health, economic and other benefits from Genomes and Biodata.

In October 2021 we start the next quinquennial plan of Sanger research, our roadmap to deliver cutting edge genomic science through 2021-2026.

Following the site visit in July 2021, the next five year funding envelope is expected to be formally awarded in early 2022.The Sanger Institute's science will further explore genome variation, naturally occurring and engineered, which will enable us to:

- understand rare and common genetic diseases;
- understand how humans and pathogens evolve;
- chart the processes of human development and ageing;
- link genome variation to their phenotypic and functional consequences, from the single cell to the whole organism;
- discover the molecular interactions between pathogens and hosts; and
- produce reference genomes for all species of complex organisms found in Britain.



Wellcome Connecting Science will continue to deliver a full programme, which addresses its key strategic objectives:

- Collaborate with diverse communities to transform engagement with genomics.
- Impact policy, practice and careers.
- Through our work establish the Wellcome Genome Campus as the recognised centre of excellence for learning and engagement with genomics.

Our work in the coming year will ensure that learnings from the pandemic around virtual training and skills development are applied across the programme. For example, we will be working in collaboration with COG-UK on the development of genomic surveillance training programme for researchers in low and middle-income countries that will include a strong online element. We will work with relevant partners to establish evidence -based communication approaches around genomics, that build trust and awareness. And more broadly we will actively continue to embed diversity and inclusion into our programme, striving to ensure that equity is at the core of both our public and professional-facing offer.

The Entrepreneurship and Innovation team will extend their efforts to integrate the Campus' diverse activities, in order to realise new collaborations and translational opportunities created by co-location, taking into account changes in working preferences arising from the pandemic. Based on learnings from the BIC they will support development of the Campus Vision and strategy development around growth of the innovation and entrepreneurship on the Campus. They will continue to explore how best to work with Wellcome to better deliver impact from the Institute's flagship science. In particular, there appears to be an increased opportunity to establish new companies. The Translation Office is exploring how best we can support these opportunities.

The outline planning permission granted to Wellcome for campus development offers the opportunity to significantly expand our close infrastructure of connected organisations and facilities and create a world leading hub of knowledge exchange and support.

## Principal risks and uncertainties

The Directors have implemented a formal risk management process to assess financial and business risk and implement risk management strategies. They have identified the main risks GRL faces, prioritised them in terms of potential impact and likelihood of occurrence, and have identified means of managing and mitigating the risks. The Directors have reviewed the adequacy of GRL's current internal controls, including the ongoing improvement programme.

The Audit and Risk Committee reviews the risk management policy, risk processes and the Institute Risk Register throughout the year. It monitors progress against actions arising to address the risks identified. It reviews internal audit's own assessment of risk as part of the review and approval process of the annual risk-based internal audit plan. It also monitors the reports from internal audit and progress against the audit plan and the closure of management actions arising from its reports.

The Internal Audit opinion on the GRL control environment for 2019/20 was that Internal Audit was only able to provided limited assurance. Improvements with respect to the effectiveness of the internal controls have been noted and Management have identified further opportunities to strengthen the overall control system. The 2020/21 internal opinion on the control environment will be reported in March 2022. Furthermore, due to the impact of the Covid-19 pandemic, all audits were completed remotely. The function was also subject to an External Quality Assessment by Grant Thornton in January which highlighted that the function's structures, policies, and procedures of the activity conform with the requirements of the Institute of Internal Auditors or element of the Code of Ethics in all material respects.

The major strategic risks currently facing GRL are detailed in the table on pages 20 and 21.

## Structure, governance and management

GRL is a registered company, a registered charity and is governed by its memorandum and articles of association. GRL is a wholly-owned subsidiary of the Wellcome Trust and is considered to be so for accounting purposes. Its sole member is the Wellcome Trust Limited, as corporate trustee of the Wellcome Trust .

Genome Research Trading Limited, Mosaic Therapeutics Limited and GRL Construction Limited are 100% subsidiaries of GRL. Hinxton Hall Limited is a charitable company, and has only two members: the Wellcome Trust Limited as Trustee of Wellcome Trust and GRL.

Directors are appointed by the GRL Board, however, in accordance with the Articles, the Wellcome Trust Limited also has rights of appointment. All Directors receive an induction comprised of a mix of written information and meetings with key GRL people. The performance of the GRL Board will be monitored through regular effectiveness reviews and benchmarking against relevant governance codes.

### GRL Board of Directors

The GRL Board has overall legal responsibility and accountability for all activities of the Sanger Institute and for all other GRL activity at the Wellcome Genome Campus. It approves the management structure and operating budgets of the Sanger Institute and Wellcome Genome Campus and approves major policies such as on intellectual property. In the year ended 30 September 2021, the GRL Board met on five occasions, four scheduled meetings and an additional meeting as part of the ongoing Board development, covering topics around inclusion and diversity.

A list of Directors , including details of 1 resignation in the year, is shown on page 50.

The GRL Board receives regular and emergent reports from its own committees and from GRL's management boards and committees, including:

- the Quinquennial strategy, award and review process;
- strategic proposals and projects, both science and campus related;
- plans and actions supporting

## Strategic Risks

| Risk | Nature of risk | Management of risk |
|---|---|---|
| **COVID-19** | The organisation has adapted its working practices to safeguard activity on site whilst maintaining COVID-secure working practices. However there is a risk that if there is significant illness in the staff population or new government restrictions in the level of activity on site, scientific activities and therefore output could be constrained. There is a risk that restrictions related to the pandemic continue for a protracted period of time raising the longer term risks of the impact of extended home working and the need for social distanced working on Campus. Continued reduced access to laboratories, extended isolated working and less team/collaborative working opportunities may impact on mental health, engagement and creativity. | Working practices have been changed to accommodate increased home working for staff whose presence on site is not essential for the performance of their duties and on site protection methods such as testing and mask wearing are in place. Governance is also clear with processes introduced to allow rapid escalation of changes in the situation to Director and Chief Operating Office through the Campus Incident Management Team. The organisation is well sighted on changes in the environment through our COVID sequencing work for UKHSA. We continue to consider and review future working models and have invested significantly in remote engagement activity, with initiatives such as free Headspace accounts, remote exercise classes and growth of mental health training and support. |
| **Supply Chain** | In common with many healthcare and scientific organisations around the world, the post COVID-19 market supply issues have demonstrated our vulnerability to global supply shocks. Due to the large-scale science conducted at GRL we are heavily dependent on the smooth operation of our supply chains to ensure continued operations and production of quality scientific output. | In order to ensure continued operations we have adapted our approach to key consumables and reagents to ensure more resilience in our arrangements. This includes additional processes dedicated to demand forecasting with our key suppliers and more structured triggers for intervention plus more active stock monitoring across the full range of products used by the organisation. |
| **Cyber and Data Security** | The threat landscape around Cyber security is continually increasing and GRL is not exempt from the risk that a major cyber security breach could cause a major disruption to services, disrupt our users, systems and/or data. | To manage this risk we rely heavily on the skills and experience of our in-house IT department, supplemented with external support and expertise, and the training and awareness of our staff. |
| **People** | Cutting edge science requires GRL to attract, retain and develop a diverse range of talented people, including the finest scientific brains with interests in new areas of science within the genomics field. The absence of the necessary supportive, inclusive and collaborative culture; an inappropriate faculty model or PhD programme; inadequate communication or a deficiency in reward structure could negatively impact recruitment, retention and development. There are specific risks associated with recruitment from overseas from Brexit and the impact of the COVID-19 Pandemic. | Management have focused on creating and maintaining the right culture within the organisation. Culture is widely communicated and understood, and is reinforced through integration with employee processes, such as recruitment, promotion and performance review. We offer extensive staff support, through dedicated networks, support and ongoing monitoring of data, in order to be inclusive to all, and so that our staff represents the diverse population local to Cambridgeshire.<br><br>We have increased our staff VISA and residency application support and continue to monitor emerging requirements as regulations change. |
| **Campus Development** | GRL is a world leading Research Institute in genomics and aspires to build a close infrastructure of connected organisations to create a world leading hub of knowledge exchange and support. Wellcome has been granted outline planning permission to expand the Campus, and in order to facilitate the expansion, Campus development will transition from GRL to a new governance construct. There is a risk that appropriate organisations do not join the expanded Campus and so that vision is not achieved. | Wellcome has articulated support for academic discovery research on the new Campus. In addition, the Campus Gateway policy and process was embedded into the section 106 agreement with the local planning authority for the Campus expansion. This ensures that the scientific theme of 'genomes and biodata' continues to be supported.<br><br>The new governance body will review progress in attracting organisations to the expanded Campus against its mission, to ensure appropriate measures are taken to attract relevant organisations. |

| Risk | Nature of risk | Management of risk |
|---|---|---|
| **Implementation of Innovative Technologies** | Since both science and the technologies used within GRL are constantly evolving, we need to ensure that we proactively seek out and implement innovative technological solutions to maintain the novelty of our research. Failure to do so could inhibit our reputation as a world leader, and subsequent appeal to key scientists, funders and commercial partners. | Continue to scan the markets serving our technology requirements for new technologies, adopt them when they become available, and build on close links with suppliers who may be able to develop technologies with us that will meet our future requirements.<br><br>Take advice from our International Scientific Advisory Board and collaborate with other Institutes and bodies to ensure we remain at the forefront of science. With support from our scientists, perform a research and development review to define future strategy and develop new ideas, areas of research and governance structure. |
| **Alignment with Wellcome Strategy and Funding** | The Institute is supported by its core funding award from the Wellcome Trust, which is linked to the five year scientific review of the Institute. There is a risk that an ageing asset base and high inflation could erode the value of funding over the five year period.<br><br>There is a risk in future that changes in the underlying Wellcome strategy could lead to a divergence of the strategies between the two organisations. | The organisation works very closely with Wellcome to ensure that our organisational strategies remain aligned.<br><br>The organisation maintains a regular review of its third party grant strategy to ensure all opportunities aligning with our strategy are fully taken. |
| **Sequencing for Large Scale Datasets** | GRL has built a large amount of know-how, skill and experience in the field of genomics using its large-scale infrastructure. This learning has been employed on several large scale projects which have mutual benefits.<br><br>Our large scale sequencing contracts with UK Biobank and the UK Health and Security Agency (COG-UK COVID-19 sequencing) are coming to a close in the next two years. A sequencing contract with the similar scale may not be secured to replace these contracts.<br><br>GRL may cease to be involved in sequencing large scale datasets, with a negative impact on the brand as a global leader in genomic data. This could also result in a loss of economic benefits and ability to process at scale. | The ability of Sanger to deliver contractual large scale sequencing projects and willingness to sequence more is a recurring agenda when the Director's Office meet with external stakeholders (including pharma, biotech and national activities such as Genomics England and Our Future Health); with Wellcome science teams, Wellcome's Director and Wellcome's Governors; and through regular updates with the Office for Life Sciences.<br><br>GRL initiate its own large scale sequencing projects through core and third party funding which allows it to continue to develop technologies and generate global interest. |
| **Public Perception of Genomics** | The Institute's reputation is central to its ability to attract and retain talent; collaborate extensively with other researchers, funders and suppliers; receive funding for, and achieve, our research aims. The COVID-19 pandemic has significantly increased public interest in genomic research; failure to capitalise on this may undermine GRL's mission. Failure to adhere to the highest levels of ethical behaviour or good research practice; failure to comply with legislation; or a poor working culture would all pose risks to GRL's reputation. | All staff within the organisation receive training in appropriate behaviour, including conflicts of interest and good research practice. GRL continues to proactively engage with health professionals and the general public through the Connecting Science division and influence the positive perception of genomics through publicising scientific breakthroughs in multiple forums including those accessible to the general public such as the press.<br><br>GRL continues to invest and implement best in class data management systems that protect personal and individual data. |

equality, diversity and inclusion and the GRL culture;

- all matters reserved to the GRL Board for approval including, amongst others, changes to corporate structure, conflicts of interest and policies relating to conduct, certain appointments, major changes to pension schemes, the annual budget and the annual report and accounts.

## GRL Executive Board

The GRL Executive Board (chaired by the Director of the Institute who is also Chief Executive Officer of GRL) has delegated responsibility from the GRL Board to oversee the implementation of GRL's strategy. The GRL Executive Board includes representatives from each of the main themes of GRL's strategy.

The management of each part of the strategy is delegated as follows:

- The Sanger Board of Management (BoM), chaired by the Director of the Institute, is responsible for the delivery of our scientific strategy.
- The Connecting Science Management Board chaired by the Director of Connecting Science is responsible for delivery of our education and public engagement activities.
- The Campus Operations Board (chaired by the Associate Chief Operating Officer) is responsible for the development and management of the buildings and infrastructure of the Wellcome Genome Campus.

## Audit and Risk Committee

The Audit and Risk Committee reports to the Board on how it has discharged its responsibilities with regard to reviewing:

- risk management (see page 19);
- the systems of internal control;
- the external and internal auditors' qualifications, independence and performance;
- the integrity and transparency of the financial statements;
- compliance with legal and regulatory requirements;
- policies and procedures relating to fraud or misappropriation;
- any serious issue affecting the staff of GRL, including health and safety, HR policies and employment disputes;
- the effectiveness of financial systems, processes and finance function, and;
- financial budgeting and reporting

The members of the Committee were appointed by the Board and are independent of GRL staff. During the year, membership of the Committee has been as follows:

- Daniel Abrams (Chair)
- Karen Chadwick (Wellcome Trust)
- Nicole Mather
- Daniel Mahony.

## Remuneration Committee

The Board of Directors, via its Remuneration Committee, ensures that remuneration arrangements support the strategic aims of GRL, including approving senior staff salaries. The Remuneration Committee sits at least once annually.

Responsibilities of the Board in respect of remuneration are:

- Approving the reward strategy and policies for the remuneration of staff, including the Executive Board;
- Determining individual remuneration packages and terms and conditions of employment above an agreed salary level;
- Exercising any powers of, and approving any decisions required by, the Trust in respect of the Genome Research Limited Pension Plan; and
- Ensuring remuneration practices and policies facilitate the employment and retention of talented people.

## Nominations Committee

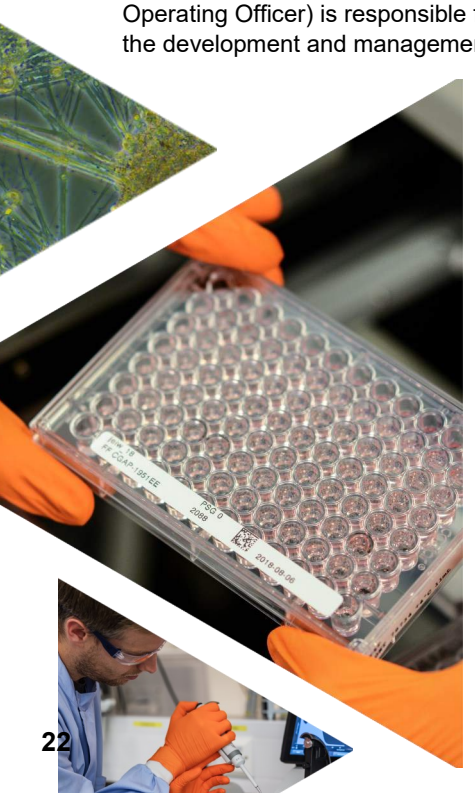
The Nominations Committee has delegated responsibility from the GRL Board to review the structure, size and composition of the GRL Board, taking account of relevant skills, experience and diversity and to make recommendations to the GRL Board regarding the appointment of its members, and members of the Audit and Risk Committee. The Nominations Committee sits as and when required.

## Conflicts of interest

GRL has a policy on conflicts of interest, which applies to directors and employees. The policy requires disclosure of relevant commercial and academic interests. The policy defines the interests that should be disclosed. Outside activities need prior approval and the policy acts out the process for establishing measures to mitigate the impact of potential conflicts.

## Key Management Personnel

The Key Management Personnel of GRL have been defined as members of the Executive Board to whom the Board of Directors have delegated responsibilities for the day-to-day running of the organisation. These are: the Chief Executive, the Chief Operating Officer and the Director of Connecting Science.



The total consideration given to Key Management Personnel is summarised in note 7 to the accounts.

The remuneration of the Board of Directors is governed by the Articles of Association. The remuneration of members of the Executive Board who are considered Key Management Personnel is determined by the Board of Directors as described above, by benchmarking against equivalent positions within the sector.

## Auditor

The auditor, Deloitte LLP, have indicated their willingness to continue in office and a resolution concerning their re-appointment was approved at the Annual General Meeting.

## Public benefit

GRL reviews its aims each year to ensure that those aims remain focused on its charitable objects. GRL has referred to the guidance contained in the Charity Commission's general guidance on public benefit when reviewing its aims and objectives and in planning its future activities.

The Directors are satisfied that due regard has been given to the public benefit guidance published by the Charity Commission as required by section 17 of the Charities Act 2011.

In the opinion of the directors all of GRL's charitable activities are focused on the objects and aims set out above and are undertaken to further GRL's charitable objects for the public benefit.

## Health and safety

The Wellcome Genome Campus management recognise that proactive, well-managed health and safety is directly linked to its growth and success.

The last 12 months have been a time of supporting teams who have continued to work on campus, individual team member's home working, as well as teams returning to campus as restrictions have been eased. In excess of 300 home workers have been provided with suitable furniture for their home offices and supported to set it up correctly to minimise poor working postures. As teams have returned to campus, we have continued to support our COVID-secure measures, including a GRL track and trace helpdesk responding to questions from employees and supporting positive cases and their close contacts from our internal COVID-19 testing programme. We have also recommenced our internal assurance programme of laboratory and facility inspections to ensure our high standards are maintained.

As well as dealing with COVID-19, the past year has had its share of additional challenges, including two fires occurring in outbuildings, resulting in property damage only, one in an emergency generator room and more recently in a chemical waste store. Both fires were extinguished quickly by the Cambridgeshire fire & Rescue Services. With both incidents we have been keen to understand and apply lessons learned to all our operations.

In addition we have launched a new health and safety management tool, SHE Assure, which will bring together multiple standalone databases for risk assessment, audit / inspection and incident reporting. The main outward facing aspects are the hazard and near miss reporting tools, making it much easier to report issues as they occur, helping us understand areas or activities that may require maintenance / repair or processes requiring further control measures.

## Environmental Statement

In March 2021 the Campus successfully re-Certified its ISO 14001:2015 and ISO 50001:2018 for a further three years to 2024.

Our target is to reduce our relative energy consumption (excluding the data centre) by 2030 against our 2018/19 baseline. We are working with consultants to develop an energy and decarbonisation strategy that will provide a road map to achieve this. We expect to finalise the road map in early 2022.

In May 2021 the Campus Environmental Sustainability Strategy was approved by Sanger Operations Board and is now being developed

**UK Greenhouse gas emissions and energy use data for the period 1 October to 30 September**

| | **2021** | **2020** |
|---|---|---|
| Energy Consumption used to calculate emissions [kWh]: | **49,220,107** | **48,565,399** |
| **Scope 1** emissions [$tCO_2e$] | | |
| Total Scope 1 | **5,923** | **4,571** |
| Gas consumption | 3,870 | 3,843 |
| On-site generation [CCHP] | 1,511 | 600 |
| Owned transport and LV Generators | 1 | 7 |
| Generation | 541 | 121 |
| Biodiesel—ground vehicles | - | - |
| **Scope 2** emissions [$tCO_2e$] | | |
| Total Scope 2 | **4,556** | **5,730** |
| Purchased electricity | 4,556 | 5,730 |
| **Scope 3** emissions [$tCO_2e$] | | |
| Total Scope 3 | **398** | **501** |
| Electricity transmission and Distribution | 392 | 493 |
| Business travel in employee owned vehicles | 6 | 9 |
| **Total gross emissions [**$tCO_2e$] | **10,877** | **10,803** |
| **Intensity ratio [**$tCO_2e$/floor area $m^2$] | **0.120** | **0.119** |

into actions. This ten year strategy has targets set across 12 themes; Biodiversity, Energy, Carbon and Offsetting, Waste and Recycling, Water and Effluent, Sustainable Construction, Sustainable Work Practices, Sustainable Lab Practices, Sustainable Food, Culture Change, Travel, Procurement and Supply Chains. This document can be found on the Wellcome Genome Campus website.

### Streamlined Energy and Carbon Reporting

In compliance with the Streamlined Energy and Carbon Reporting (2019) Framework, our energy usage is shown in the table below.

The Wellcome Genome Campus is supplied and billed on its total main incoming utilities supplies. Energy consumption is measured by building, and allocated to individual organisations by reference to floor space. Shared spaces have been apportioned in line with management charges, which are primarily calculated based on headcount.

The temporary closure of the Campus to all but essential staff has resulted in a reduction in electricity usage compared to the equivalent period in the prior year; however as the closure happened after the colder Winter period, and high usage facilities, such as the Data Centre and sequencing operations, have remained in use, there has not been a fall in overall energy consumption year on year.

**Energy efficient actions**

While the campus strives to improve its energy efficiency, there have been no new efficiency actions implemented in the year; however the Campus closure period has been used as an opportunity to identify improvements to be implemented as part of the ten year Campus Environmental Sustainability Strategy.

We have used this year to focus on planning and working with consultants to understand what a ten year Net Zero Carbon roadmap could look like, especially looking at key strategic decisions needed on our high energy using buildings or specific pieces of equipment.

We have improved our engagement and communication of utilities use so that staff will now be able to view monthly per building electricity, gas and water data. As well as improving our data collection and verification by procuring an energy management software.

## Employee Engagement Statement

Refer to the Section 172 Statement on page 15 for details of how Directors have regard for employee interests and engage with employees.

## Employment and diversity

GRL is committed to employment practices, systems and policies that go above legislative compliance and follow best practice, while promoting a working environment that supports the realisation of the Organisation's scientific purpose.

**People Development & Engagement**

Our engagement strategies have proved to be a critical element during the ongoing global pandemic, supporting staff who have been required to work remotely, as well as those that have continued to deliver critical services on Campus. Maintaining our sense of community during lockdown has been a priority, ensuring those with parent and carer responsibilities were given the support needed to manage work alongside home obligations. Our International community and those living alone were also a priority focus, in supporting the mental health aspects of prolonged isolation from others.

Many of our core services have been delivered through remote platforms in order to reach a dispersed workforce, with an emphasis on engagement initiatives that support mental health and wellbeing during this time of stress and uncertainty. The majority of face-to-face based training has ceased throughout the pandemic, with broader alternative programmes launched that have had the additional benefit of offering flexibility of access.

This ongoing change demands more and more from our managers, thus we continue to develop tools and training to support them. We have developed a new transformational leadership programme that will be piloted later this year. This course complements existing programmes and will develop inspiring leadership behaviours, targeting both current critical leadership and in future, high potential colleagues that we seek to develop in advance of greater responsibilities.

**Maintaining a great place to work**

The 'Great Place to Work' employee opinion survey is conducted every 18 months and this year saw the results of our fourth full staff survey. The report showed continuing progress in all key engagement measures: Wellbeing scoring 84% (+3 v 2019 survey), Engagement 83% (+4), Trust Outcome 67% (+6) and an overall Trust Index score of 79% (+4).

These scores affirm that GRL is a 'great place to work' when benchmarked against scores from other best workplaces – although it was noted that there were groups of lower scoring employees when categorised by ethnicity, that place continued emphasis on the importance of our EDI strategy. We continue to action plan at local and organisation level, to maintain our positive score trajectory.

**Building our inclusive, transparent Culture**

Our Culture Development programme continues to embed our commitment to inclusivity and people

values in all we do. We have established clear and defined standards of behaviour that are discussed at annual appraisal and supported through tools such as 360 feedback as/when needed.

Our approach to Equality, Diversity and Inclusion (EDI) has never been more relevant than now, at a time when there has been global reflection on inequity and discrimination that continues within society; the stark inequalities that have been amplified by the pandemic and the spotlight on Black Lives Matter. During the year, our focus has continued to broaden from gender equity, for which our data suggests we have achieved significant strides towards parity at all levels of the Institute, to broader equity and inclusion.

As we move our EDI strategy into action, we are exploring positive action initiatives where we can show leadership and make a meaningful difference. In collaboration with Connecting Science, we have recently recruited for a PhD project exploring race and ethnicity within genomics categorisations. This was proactively targeted towards people from a minoritised ethnic background, with an enhanced PhD stipend. We are also exploring setting-up a Post-Doctoral Fellowship aimed at people from a Black British background - a cohort that we know is not thriving within academia.

- We are signatories of the Race at Work Charter and have been developing our race equity strategy, where we commit to:
- Taking an institutional-wide approach to anti-racism
- Centring the lived experience of people of colour when implementing solutions
- Sourcing appropriate expertise
- Resourcing effectively to ensure meaningful and sustained change.

Although there is currently no legislative requirement to report ethnicity pay gaps, we have launched our first ethnicity pay survey in 2020. We received 400 responses and based on this sample, the mean ethnicity pay gap across the organisation was calculated to be 5.0%; the median 0.6%, which is below the national average of 2.3% (2019 Office of National Statistics). Key is that we continue to support all staff to disclose their data within our HR database so that we can conduct ongoing meaningful analysis with a richer dataset.

In 2020 (the most recent reporting reference date), GRL had a median gender pay gap of 8.7% (2019: 10.1%) and mean gender pay gap of 11.6% (2019: 13.2%). The full gender pay report can be found on our website.

Our strategic aim for all pay grades to have a gender pay gap of within +/- 5% by the end of 2021 will be achieved for all but one pay grade, which is currently at 6.45%. This is largely due to the top decile of salaries within this pay grade being predominantly men within IT and Software Development job families, where there are market imbalances towards men. We have developed a targeted action plan across this job family, which we will keep under review. We have committed to conducting our gender pay gap analysis every 6 months.

Our neurodiversity working group launched in 2020 and we have developed our strategy, which takes an empathetic and individualised approach based on individual profiles of needs and requirements, rather than specific diagnoses or conditions. We also launched our Trans Inclusion policy and guidance document in 2021, which supports our commitment to Stonewall's Diversity Champions.

We continue to lead Campus-wide EDI activities in collaboration with the EBI through the 'Equality in Science' programme. The LGBT+, Parent/ Carers' and Race Equity Engagement networks are well established and we continue to use these mechanisms to provide specific community support, such as peer-to-peer mentoring, targeted workshops and talks.

Our equal opportunities policy mandates that GRL does not discriminate against any job applicant or employee on the grounds of age, disability, sex, gender reassignment, pregnancy, maternity, race, sexual orientation, marital status, religion or belief; and that decisions on employment, training, promotion and career progressions are made on the basis of their individual performance. We have created and promoted a Disability Awareness in Recruitment guide and introduced Reasonable Adjustments guidance within the recruitment process, to ensure that applicants won't be excluded on the basis of disability, and support is provided when required. Should any employee become disabled during their time with us, where possible we will make adjustments to ensure they can remain an employee of the Charitable Company.

We are continually reviewing how we can further establish ourselves as a fully inclusive employer and in acknowledging our efforts and achievements made to date specifically regarding gender equality, we also recognise that these efforts can expand further to encompass all forms of equality by broadening our commitment with positive interventions and collaboration.

This Trustees' report, incorporating the Strategic report, is approved by order of the Board of Directors.

DocuSigned by:
jeremy farrar
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Sir Jeremy Farrar,
Chair of the Board of Directors,
13 December 2021

# Statement of Directors' responsibilities

The Directors are responsible for preparing the Annual Report and the Financial Statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice), including FRS 102 "the Financial Reporting Standard applicable in the UK and the Republic of Ireland".

Company law requires the Directors to prepare Financial Statements for each financial year which give a true and fair view of the state of affairs of the charitable company and of the incoming resources and application of resources, including the income and expenditure, of the charitable company for that year. In preparing these Financial Statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities SORP;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the Financial Statements; and
- prepare the Financial Statements on the going concern basis unless it is inappropriate to presume that the charitable company will continue its activities.

The Directors are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the charitable company and enable them to ensure that the Financial Statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

## Disclosure of information to auditor

As far as the Directors are aware:

- there is no relevant audit information of which the charitable company's auditor is unaware; and
- the Directors have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditor is aware of that information.

This confirmation is given and should be interpreted in accordance with the provisions of S414 of the Companies Act 2006.

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 United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

# Independent Auditor's report to the Directors/Trustees of Genome Research Limited

## Report on the audit of the financial statements

### Opinion

In our opinion the financial statements of Genome Research Limited (the 'charitable company'):

- give a true and fair view of the state of the charitable company's affairs as at 30 September 2021 and of its incoming resources and application of resources, including its income and expenditure, for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard 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.

We have audited the financial statements which comprise:

- the statement of financial activities;
- the balance sheet; and
- the related notes 1 to 23

The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" (United Kingdom Generally Accepted Accounting Practice).

### Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the charitable company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (the 'FRC's') Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Conclusions relating to going concern

In auditing the financial statements, we have concluded that the trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the charitable company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the trustees with respect to going concern are described in the relevant sections of this report.

### Other information

The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. The trustees are responsible for the other information contained within the annual report. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

### Responsibilities of trustees

As explained more fully in the Statement of Directors' Responsibilities, the trustees (who are also the directors of the charitable company for the purpose of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the trustees determine is necessary to enable the preparation of financial statements that are free from material

misstatement, whether due to fraud or error.

In preparing the financial statements, the trustees are responsible for assessing 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 the trustees either intend to liquidate the charitable company or to cease operations, or have no realistic alternative but to do so.

## Auditor's responsibilities for the audit of the financial statements

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 an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a 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 the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

## Extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

We considered the nature of the charitable company's industry and its control environment, and reviewed the charitable company's documentation of their policies and

procedures relating to fraud and compliance with laws and regulations. We also enquired of management, trustees and internal audit about their own identification and assessment of the risks of irregularities.

We obtained an understanding of the legal and regulatory framework that the charitable company operates in, and identified the key laws and regulations that:

- had a direct effect on the determination of material amounts and disclosures in the financial statements. These included UK Charities Act, UK Companies Act and pensions legislation; and
- do not have a direct effect on the financial statements but compliance with which may be fundamental to the charitable company's ability to operate or to avoid a material penalty. These included the Charity Commission for England and Wales (Charity Commission) regulations.

We discussed among the audit engagement team including relevant internal specialists such as pensions, and IT specialists regarding the opportunities and incentives that may exist within the organisation for fraud and how and where fraud might occur in the financial statements.

As a result of performing the above, we identified the greatest potential for fraud or non-compliance with laws and regulations in the following areas, and our specific procedures performed to address them are described below:

- Risk of fraud in income recognition.
    - This is a presumed risk under International Auditing Standards. We have pinpointed our fraud risks on third party grant income and trading income including the UK Biobank and COVID sequencing projects.
    - For third party grant income, income entitlement is dependent on the grant agreement terms and conditions. We consider the risk to be related to the recognition of income under new grant agreements in line with those agreements and the Charity SORP requirements. To address this risk, we have reviewed the control environment governing the recognition of income under new grant agreements. Further, we have tested a sample of new grant agreements to contract documents, invoices, and cash receipts, as well as reviewing board and committee minutes, to test whether income has been accurately recognised in the financial statements.
    - For trading income, income entitlement is dependent on the contract terms and conditions. We consider the risk to be related to the recognition of income in line with those contracts and the Charity SORP requirements. To address this risk, we have gained an understanding of the controls in place governing the recognition of income under these contracts and obtained evidence of control implementation, we have tested significant projects to contract documents, invoices, and

cash receipts, as well as reviewing board and committee minutes. Where a contract is accounted for on a 'costs to complete' basis, we have recalculated the percentage of cost to complete and compared to the income recognised in the current year, tested a sample of costs incurred in the year and assessed the accuracy of management's estimates of costs to complete by comparing the actual costs incurred for the year to the budgeted costs and inquired with the relevant project managers for any revisions made to the budget, as well as considering any relevant subsequent events on the contracts.

- Risk of fraud in investment valuations.
    - Investment valuation requires significant judgement by management. There is a risk that direct investments held at fair value have not been valued using reasonable valuation techniques. We have gained an understanding of the controls in place around investment valuations and obtained evidence of control implementation. We have tested the valuation of the investments by obtaining the valuation paper prepared by management for all investments held and testing for reasonability the key inputs used in the valuations.

In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override. In addressing the risk of fraud through management override of controls, we tested the appropriateness of journal entries and other adjustments; assessed whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluated the business rationale of any significant transactions that are unusual or outside the normal course of business.

In addition to the above, our procedures to respond to the risks identified included the following:

- reviewing financial statement disclosures by testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- enquiring of management, internal audit and in-house legal counsel concerning actual and potential litigation and claims, and instances of non-compliance with laws and regulations; and
- reading minutes of meetings of those charged with governance, reviewing internal audit reports and reviewing any correspondence with HMRC and the Charity Commission.

## Report on other legal and regulatory requirements

## Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the trustees' report, which includes the strategic report and the directors' report prepared for the purposes of company law for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report included within the trustees' report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we have not identified any material misstatements in the strategic report or the directors' report included within the trustees' report.

## Matters on which we are required to report by exception

Under the Companies Act 2006 we are required to report in respect of the following matters if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the 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 respect of these matters.

## Use of our report

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

DocuSigned by:
Terri Fielding
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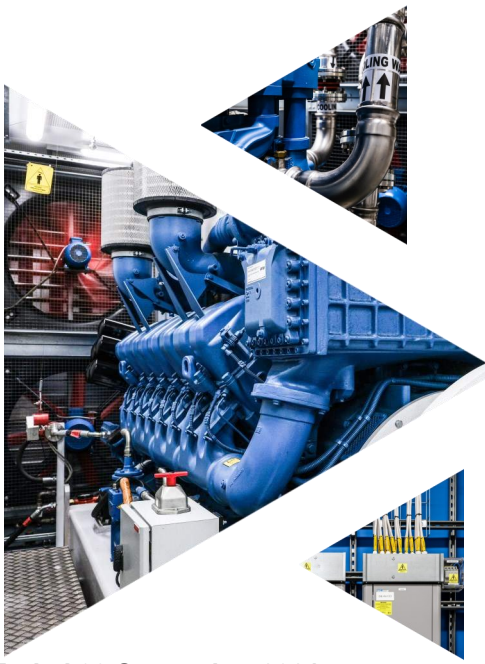
Terri Fielding ACA (Senior statutory auditor)

For and on behalf of Deloitte LLP

Statutory Auditor

London, UK



# Financial Statements

## Statement of Financial Activities (incorporating an Income and Expenditure Account) for the year ended 30 September 2021

| | Note | 2021 £'000 Unrestricted | 2021 £'000 Endowment | 2021 £'000 Restricted | 2021 £'000 Total funds | 2020 £'000 Total funds |
|---|---|---|---|---|---|---|
| **INCOME** | | | | | | |
| Income from charitable activities | | - | - | 137,163 | 137,163 | 112,581 |
| Income from other trading activities | | 64,040 | - | 12,156 | 76,196 | 43,706 |
| Investment income | | 8,073 | - | - | 8,073 | - |
| Interest | | - | 16 | 10 | 26 | 107 |
| **Total income** | 3 | **72,113** | **16** | **149,329** | **221,458** | **156,394** |
| **EXPENDITURE** | | | | | | |
| Charitable activities | 4 | (63,516) | - | (144,359) | (207,875) | (171,877) |
| **Total expenditure** | | **(63,516)** | **-** | **(144,359)** | **(207,875)** | **(171,877)** |
| Unrealised gain on investments | 10 | 67 | - | - | 67 | - |
| **Net income (expenditure)** | | **8,664** | **16** | **4,970** | **13,650** | **(15,483)** |
| **Other recognised gains** | | | | | | |
| Actuarial gains on defined benefit pension scheme | 8 | - | - | 67,300 | 67,300 | 16,300 |
| **Net movement in funds** | | **8,664** | **16** | **72,270** | **80,950** | **817** |
| **Total funds (deficit) brought forward at 1 October** | 21 | 9,608 | 654 | (48,081) | (37,819) | (38,636) |
| **Total funds (deficit) carried forward at 30 September** | | **18,272** | **670** | **24,189** | **43,131** | **(37,819)** |

The Statement of Financial Activities includes all gains and losses recognised in the year.

All income and expenditure derive from continuing activities.

2020 comparatives are given in note 22.

The notes on pages 30 to 49 form part of these financial statements.

## Balance Sheet

## as at 30 September 2021

| | Note | Total funds 2021 £'000 | Total funds 2020 £'000 |
|---|---|---|---|
| **Fixed assets** | | | |
| Tangible assets | 9 | 167,864 | 160,627 |
| Investments | 10 | 4,398 | 4,331 |
| **Total fixed assets** | | **172,262** | **164,958** |
| **Current assets** | | | |
| Stocks | 12 | 13,681 | 10,894 |
| Debtors | 13 | 61,139 | 46,826 |
| Cash at bank and in hand | | 4,629 | 10,461 |
| **Total current assets** | | **79,449** | **68,181** |
| Creditors: amounts falling due within one year | 14 | (53,372) | (49,473) |
| **Net current assets** | | **26,077** | **18,708** |
| **Total assets less current liabilities** | | **198,339** | **183,666** |
| Creditors: Amounts falling due after one year | 15 | (16,633) | (17,165) |
| Provisions | 16 | (5,375) | (5,520) |
| **Net assets excluding pension liability** | | **176,331** | **160,981** |
| Defined benefit pension scheme deficit | 8 | (133,200) | (198,800) |
| **Total net assets (liabilities)** | | **43,131** | **(37,819)** |
| **The Funds of the Charity** | | | |
| Restricted income funds | 21 | 157,389 | 150,719 |
| Endowment fund | 21 | 670 | 654 |
| Pension deficit | 8 | (133,200) | (198,800) |
| Total restricted deficit | | 24,859 | (47,427) |
| Unrestricted funds | 21 | 18,272 | 9,608 |
| **Total Charity surplus (deficit)** | | **43,131** | **(37,819)** |

The notes on pages 32 to 48 form part of these financial statements. The financial statements on pages 30 to 49 were approved and authorised for issue by the Board of Directors on 13 December 2021 and were signed on its behalf by:

DocuSigned by:
jeremy farrar
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**Sir Jeremy Farrar**

**Chair**

Registered company number: 2742969

# 1. Accounting policies

## Basis of preparation and statement of compliance

The financial statements of Genome Research Ltd ("GRL") have been prepared on a going concern basis in accordance with Financial Reporting Standard 102 and with the Statement of Recommended Practice 'Accounting and Reporting by Charities FRS 102 as published in 2019' ("the SORP 2019") together with the Companies Act 2006 and the Charities Act 2011. Further analysis of the going concern conclusion is set out in the Trustees' Report (page 19).

GRL meets the definition of public benefit entity under FRS 102.

The Financial Statements have been prepared under the historical cost convention, as modified by the revaluation of investments and on a basis consistent with prior years.

The Charitable Company meets the definition of a qualifying entity under FRS 102 and has therefore taken advantage of the disclosure exemptions available to it in respect of its separate financial statements. The financial statements of GRL and its subsidiaries (Hinxton Hall Limited, Genome Research Trading Limited, Mosaic Therapeutics Limited and GRL Construction Limited) are consolidated within the financial statements of its parent entity, the Wellcome Trust. As such, GRL has applied the disclosure exemption from preparing consolidated financial statements. Exemptions have been taken in relation to presentation of a Statement of Cash Flows , Financial Instruments and Related Party Transactions. The equivalent disclosures relating to the exemptions have been included in the Consolidated Financial Statements of the Wellcome Trust, its parent. Related party transactions with Trustees and key management personnel are included in note 7.

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

The preparation of financial statements in conformity with FRS 102 requires the use of certain accounting estimates. It also requires management to exercise its judgement in the process of applying the Charitable Company's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in note 2.

## Fund accounting

The Charitable Company's funds consist of restricted and endowment funds which are subject to specific conditions imposed by the donors, and unrestricted funds which may be spent at the discretion of the Directors. The endowment fund is an expendable endowment. Further analysis of funds is detailed in note 21.

## Income

Income is recognised in line with the SORP requirements for entitlement, probability and measurement. The Charitable Company's core funding from the Wellcome Trust is in the form of a multi-period grant which is subject to annual approval based on a review of science and the agreement of annual budgets. The income for core funding is recognised when the conditions for grant recognition have been satisfied. Entitlement is when the expenditure has been committed.

Other research grants fall largely into two categories: those which are performance related and specify a level of service, and those with no conditions attaching. Income for performance-related grants is recognised when the expenditure is incurred as this reflects the service levels. Income for non-performance-related grants is recognised when awarded as this represents entitlement.

Capital grants with no performance related conditions are recognised when the Charitable Company is entitled, the receipt is probable and the amount is measureable which is when the award letter is received.

Other income is recognised under the same criteria of entitlement, probability and measurement. Judgement is required to determine the point at which these conditions are met. Income received in advance of meeting the recognition criteria is deferred and income earned but not received is accrued. Other income relates to tenant services, licensing, royalties and service contracts.

Income in relation to service contracts, including the contract to deliver sequenced genomes to UK Biobank, is recognised by reference to the stage of completion of the contract activity as at the balance sheet date. This is normally measured by the proportion of contract costs incurred for work performed to date compared to the estimated total contract costs once the final outcome can be assessed with reasonable certainty. All income is recognised net of Value Added Tax ('VAT'). Where payments are received from customers in advance of services provided, the amounts are recorded as deferred income and included as part of creditors due within one year. Where income is recognised in advance of invoicing, the amounts are recorded as accrued income.

## Expenditure

Liabilities are recognised as expenditure as soon as there is a legal or constructive obligation committing the Charitable Company to that expenditure, it is probable that settlement will be required and the amount of the obligation can be measured reliably. All expenditure is recognised on an accruals basis. All grants awarded are subject to performance conditions and as such the grant is

recognised in line with the work performed by the sub-grantee. The Charitable Company has three activities: Sanger Institute, Connecting Science and Enterprise and Innovation. Where possible, expenditure that relates to more than one activity is apportioned. Apportionment is in proportion to direct costs. Governance costs represent expenditure incurred in compliance with constitutional and statutory requirements including internal and external audit and are included within support costs.

The costs of pension related expenditure is allocated on the basis of the staff to which the costs relate.

## Tangible fixed assets and depreciation

Tangible fixed assets are measured initially on the balance sheet at their historical cost. Tangible fixed assets costing more than £10,000 are capitalised together with any incidental costs of acquisition. Costs related to building projects are capitalised from the date the building project becomes viable. Prior to that date costs are written off as incurred. During the construction phase, buildings are classified as being in the course of construction until the date of practical completion when they are transferred to leasehold buildings.

Depreciation is calculated so as to write off the cost of the tangible fixed assets, less their estimated residual values, on a straight-line basis over the expected useful economic lives of the assets concerned. Impairment reviews are undertaken when, in the opinion of the directors, events or circumstances have arisen that indicate that the carrying value of an asset is impaired. They are reviewed annually and any impairment is recognised in the year in which it occurs. No depreciation is charged during the year on the assets in the course of construction. Where an asset has been purchased for use on a third-party funded activity, it is written off over the period of the funding.

The principal annual rates used for this purpose are:

| | |
|---|---|
| Short leasehold buildings | Over the lease term |
| Laboratory equipment fixtures and fittings | |
| General laboratory equipment, fixtures and fittings | Over 5 years |
| Sequencing instruments | Over 3 years |
| Computing equipment | Over 3 years |

All the Charitable Company's tangible fixed assets are used for direct charitable purposes. The short leasehold buildings are held under leases from the Wellcome Trust, at £nil cost p.a., which expire in February 2055.

## Financial Instruments

The Charitable Company has chosen to adopt Sections 11 and 12 of FRS 102 in respect of financial instruments. Financial assets and financial liabilities are recognised when the Charitable Company becomes a party to the contractual provisions of the instrument.

i) Financial assets

Basic financial assets including trade and other receivables, cash and bank balances, and intercompany loans are initially measured at transaction price (including transaction costs), except for those financial assets classified as at fair value through profit or loss, which are initially measured at fair value (normally the transaction price excluding transaction costs).

Financial assets and liabilities are only offset in the Balance Sheet when, and only when, there exists a legally enforceable right to set off the recognised amounts and the Charitable Company intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Investments — see policy below

Cash at bank and in hand has maturity of less than 3 months.

Financial assets are derecognised when (a) the contractual rights to the cash flows from the asset expire or are settled, or (b) substantially all the risks and rewards of the ownership of the asset are transferred to another party or (c) control of the asset has been transferred to another party who has the practical ability to unilaterally sell the asset to an unrelated party without imposing additional restrictions.

ii) Financial liabilities

Basic financial liabilities, including trade and other payables and loans from fellow group companies are recognised at transaction price.

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities. Trade payables are normally recognised at settlement amount after allowing for any trade discounts due.

## Stock

Stock is stated at the lower of cost and net realisable value less costs to complete and sell. Cost is determined on a first-in first-out basis. Stock takes are conducted on a cycle basis. Where necessary, obsolete, slow moving and defective stock is written off or provided for when identified.

## Foreign currencies

Transactions denominated in foreign currencies are translated into sterling at the rates ruling at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are retranslated at the rates ruling at that date. All differences are recognised in the Statement of Financial Activities.

The Charitable Company's parent has provided the Charitable Company with an open-ended facility to convert currency at a favourable rate. The Charitable Company considers this service to be a donation-in-kind to which no value is attributed. The Charitable Company recognises exchange gains arising on these transactions in the statement of financial activities.

## Investments

Unquoted programme related investments are held at management's best estimate of fair value, if this can be reliably measured, or if fair value cannot be measured reliably, at cost less impairment. Changes in fair value are recognised in income and expenditure.

Investments in subsidiaries are measured at cost less impairment.

## Defined benefit pension plan

The Charitable Company operates a defined benefit plan for certain employees. A defined benefit plan defines the pension benefit that the employee will receive on retirement, usually dependent upon several factors including age, length of service and remuneration.

The liability recognised in the balance sheet in respect of a defined benefit plan is the present value of the defined benefit obligation at the end of the reporting date less the fair value of plan assets at the reporting date. The defined benefit obligation is calculated using the projected unit credit method. Annually the Charitable Company engages independent actuaries to calculate the obligation. The present value is determined by discounting the estimated future payments using market yields on high-quality corporate bonds that are denominated in sterling and that have terms approximating the estimated period of the future payments ('discount rate').

The fair value of plan assets is measured in accordance with the FRS 102 fair value hierarchy and in accordance with the Charitable Company's policy for similarly held assets. This includes the use of appropriate valuation techniques.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to "Actuarial gains and losses on defined benefit pension plans" in the Statement of Financial Activities.

The net interest cost is calculated by applying the discount rate to the net balance of defined benefit obligation and the fair value of plan assets. This cost is recognised as part of resources expended.

## Defined contribution pension plan

The Charitable Company operates a defined contribution plan for certain employees. A defined contribution plan is a pension plan under which the Charitable Company pays fixed contributions. Once the contributions have been paid the Charitable Company has no further payment obligations. The contributions are recognised as an expense when they are due. Amounts not paid are shown in accruals in the balance sheet. The assets of the plan are held separately from the Charitable Company in independently administered funds.

## Provisions and contingencies

Provisions are recognised when the Charitable Company has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and the amount has been reliably estimated. Provisions are discounted to present value where the effect is material.

The Charitable Company recognises provisions in relation to faculty members continuing their research at other institutions and amounts due to employees under redundancy and retention agreements in relation to the closure of the Research Support Facility (RSF).

Contingent liabilities are potential future cash outflows, where the likelihood of payment is considered more than remote, but is not considered probable or cannot be measured reliably. These are not recognised but are disclosed in the financial statements.

Contingent assets are potential future inflows of economic benefits where the likelihood of receipt is considered more than remote, but is not considered probable or cannot be measured reliably. These are not recognised but are disclosed in the financial statements.

**Genome Research Limited**
**Notes to the Financial Statements for Year Ended 30 September 2021**

## Taxation

The Charitable Company is exempt from taxation on its income and gains falling within Part 11 of the Corporation Tax Act 2010 or section 256 of the Taxation of Chargeable Gains Act 1992 to the extent that they are applied to their charitable purposes.

In common with many other charities, the charity is unable to recover the majority of VAT incurred on expenditure. The amount of VAT that cannot be recovered is included within the underlying cost to which it relates.

## 2. Significant accounting judgements and key sources of estimation uncertainty

In the application of the Charitable Company's accounting policies which are described in note 1, the directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from estimates.

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

### 2.1 Significant judgements in applying the entity's accounting policies

The following are the significant judgements, apart from those involving estimations (which are dealt with separately below), that management has made in the process of applying the charity's accounting policies and that have the most significant effect on the amounts recognised in the financial statements.

## Recognition of charitable income

Trading income earned under significant long term service contracts is recognised based on stage of completion. Judgement is required to determine the most appropriate method of calculating the stage of completion.

### 2.2 Significant accounting estimates and assumptions

The Charitable Company makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

## Assumptions used to determine the carrying amount of the Charitable Company's defined benefit pension obligation

The Charitable Company has an obligation to pay pension benefits to certain employees. The cost of these benefits and the present value of the obligation depend on a number of factors, including; life expectancy, salary increases, asset valuations and the discount rate used. The scheme is most sensitive to changes in the discount rate and rate of inflation applied. Management estimates these factors in determining the net pension obligation in the balance sheet. The discount rate is set by reference to market yields at the end of the reporting period on high-quality corporate bonds. See note 8 for the disclosures relating to the defined benefit pension scheme including an analysis of the sensitivity to the principal assumptions of the value of the plan's liabilities. We discuss the critical assumptions relating to the defined benefit pension scheme in the Financial Review section on page 16.

## Long term service contracts

Income in relation to the long term service contracts to deliver sequenced genomes to UK Biobank, is recognised by reference to the stage of completion of the contract activity as at the balance sheet date. Management estimates the stage of completion by comparing costs incurred as of the balance sheet date to total expected costs. Total expected costs are forecast by reference to a per sample cost card of which 86% are fixed price contracts for certain volumes. A 1.0% increase in total contract costs would result in a 0.9% decrease in income recognised in the year ended 30 September 2021 and a 17.2% increase in deferred income as at 30 September 2021.

## Fair value measurement and valuation processes

Some of the Charitable Company's assets and liabilities are measured at fair value for financial reporting purposes. The Charitable Company considers the appropriate valuation techniques for calculating the best estimate of fair value for reporting purposes. The Charitable Company holds unquoted programme related investments. Fair value is estimated by reference to the price of recent investment, where available. The price may be adjusted if there are indicators that this price is not a good estimate of fair value.

## 3. TOTAL INCOME

The Charitable Company has three main activities: Sanger Institute, Connecting Science and Enterprise and Innovation.

Detailed analysis follows:

| | 2021 | 2020 |
|---|---|---|
| | £'000 | £'000 |
| Sanger Institute | 129,119 | 105,592 |
| Connecting Science | 3,747 | 3,984 |
| Enterprise and Innovation (Campus) | 4,297 | 3,005 |
| Total income from charitable activities | 137,163 | 112,581 |
| | | |
| Core grants from Wellcome | 109,662 | 89,564 |
| Other grants from Wellcome | 4,181 | 4,494 |
| Grants from other funders | 23,320 | 18,523 |
| Total grants from charitable activities | 137,163 | 112,581 |
| Income from other trading activities | 76,196 | 43,706 |
| Investment income | 8,073 | - |
| Interest | 26 | 107 |
| Total income | 221,458 | 156,394 |

Income includes grant funding for both capital and operating expenditure. Grants from other funders includes £6.6 million government research grants (2020: £4.0 million). Other trading income includes income from sequencing services, of which £41.8 million relates to the UK Biobank projects to sequence whole genomes, as described on page 13 (2020: £35.7 million) and £25.1 million (2020: £nil) in relation to COVID sequencing; as well as tenant services and utilities, salary recharges, rental income, licences, the release of deferred income from EBI, and other immaterial income streams. In 2020, COVID sequencing was funded through the Wellcome Core grant. Other trading income of £64.0 million (2020: £31.7 million) relates to unrestricted funds. Interest income of £26,000 (2020: £107,000) has been recognised in the year, of which £16,000 (2020: £16,000) relates to the endowment fund.

Investment income of £8.1 million (2020: £nil) relates to gains on the sale of Programme Related Investments and is unrestricted income (note 10).

## 4a. EXPENDITURE

The Charity has three activities. Expenditure relating to each activity comprises operating expenditure, including depreciation.

| | | | 2021 | | | 2020 |
|---|---|---|---|---|---|---|
| | Direct | Support | Total | Direct | Support | Total |
| | £'000 | £'000 | £'000 | £'000 | £'000 | £'000 |
| Sanger Institute | 181,778 | 13,906 | **195,684** | 146,575 | 14,632 | 161,207 |
| Connecting Science | 5,275 | 404 | **5,679** | 5,531 | 552 | 6,083 |
| Enterprise and Innovation | 6,049 | 463 | **6,512** | 4,171 | 416 | 4,587 |
| | **193,102** | **14,773** | **207,875** | **156,277** | **15,600** | **171,877** |

Support costs have been allocated in proportion to direct costs. Support costs include staff costs of £8.6 million (2020: £10.0 million), depreciation of £0.7 million (2020: £0.7 million), premises costs of £1.8 million (2020: £1.7 million) and other costs of £3.7 million (2020: £3.2 million). Support costs include governance costs.

**Genome Research Limited**
**Notes to the Financial Statements for Year Ended 30 September 2021**

## 4b. GOVERNANCE COSTS

| | 2021 | 2020 |
|---|---|---|
| | £'000 | £'000 |
| External audit costs | 96 | 96 |
| Internal audit costs | 73 | 180 |
| Directors' remuneration and expenses (see note 7) | 8 | 10 |
| | **177** | **286** |

Governance costs have been allocated in proportion to direct costs.

## 5. GRANTS AWARDED

Expenditure related to grants awarded is as follows:

| | 2021 | 2020 |
|---|---|---|
| **Grants to Institutions** | £'000 | £'000 |
| University of Cambridge | 2,376 | 1,115 |
| Kerala Institute of Medical Sciences | 889 | 219 |
| University of Oxford | 710 | 300 |
| The Broad Institute | 535 | 591 |
| Colombian Corporation for Agricultural Research | 520 | 41 |
| Research Institute of Tropical Medicine, Philippines | 381 | - |
| University College London | 281 | - |
| University of Ibadan | 257 | - |
| CDC Foundation | 254 | 178 |
| Netherlands Cancer Institute | 194 | - |
| University of Witserand | 175 | - |
| Mosaic Therapeutics | 167 | - |
| London School of Hygiene and Tropical Medicine - MRC unit, The Gambia | 117 | 568 |
| University of Ghent | - | 285 |
| Weizmann Institute of Science | - | 156 |
| Grants to other Institutions | 732 | 164 |
| | 7,588 | 3,617 |

All grants awarded are for the field of genomic research, either through collaborative programmes or to build capacity in lower-middle income countries.

Grants are generally awarded to a particular individual, although the actual award is made to the host institution.

Included within Sanger Institute support costs (see note 4a) is an amount of £0.5 million (2020: £0.2 million) allocated to grant making activities.

All grants awarded are subject to performance conditions and as such the grant is recognised in line with the work performed by the sub-grantee. There are no outstanding liabilities for grants not paid other than those recognised as accruals for grants payable in note 14 (Creditors: amounts falling due within one year).

## 6. NET EXPENDITURE BEFORE OTHER GAINS AND LOSSES

Net expenditure before other gains and losses is stated after charging:

| | 2021<br>£'000 | 2020<br>£'000 |
|---|---|---|
| Foreign exchange losses (gains) | 68 | (640) |
| Depreciation | 14,179 | 14,091 |
| Gain on disposal of fixed assets | (73) | (52) |
| Internal audit | 73 | 180 |
| Fees payable to the company's auditor for the audit of: | | |
| Statutory financial statements | 89 | 89 |
| Pension Fund | 7 | 7 |

## 7. EMPLOYEE INFORMATION

**Number of employees**

The monthly average headcount of employees analysed by activity and function area, was:

| | 2021<br>Number | 2020<br>Number |
|---|---|---|
| Sanger Institute | 917 | 809 |
| Connecting Science | 55 | 55 |
| Enterprise and Innovation | 8 | 7 |
| Administrative | 198 | 184 |
| | **1,178** | **1,055** |

| | | | |
|---|---|---|---|
| **Analysed by** | | | |
| **Sanger Institute** | | | |
| | Cancer | 122 | 124 |
| | Cellular Genetics | 68 | 53 |
| | Human Genetics | 58 | 58 |
| | Parasites and Microbes | 108 | 90 |
| | Tree of Life | 48 | 22 |
| | Open Targets | 58 | 40 |
| | Science Platforms | 288 | 282 |
| | Science Strategy | 41 | 42 |
| | Science Support | 33 | 25 |
| | IT Platforms | 87 | 69 |
| | Translation | 6 | 4 |
| | **Total** | **917** | **809** |
| **Connecting Science** | | 55 | 55 |
| **Enterprise and Innovation** | | 8 | 7 |
| **Administrative** | | 198 | 184 |
| **Total Employees** | | **1,178** | **1,055** |
| **PhD Students** | | 60 | 53 |
| **Total Headcount** | | **1,238** | **1,108** |

PhD students are not employed by the Charitable Company but provide a significant contribution to the scientific research. Only those students who receive a stipend directly from GRL are included within the above total.

**Genome Research Limited**
**Notes to the Financial Statements for Year Ended 30 September 2021**

| | 2021 | 2020 |
|---|---|---|
| **Employment costs** | **£'000** | **£'000** |
| Wages and salaries | 54,987 | 47,067 |
| Social security costs | 5,516 | 4,810 |
| Short term benefits | 952 | 968 |
| Pension costs | 10,485 | 22,142 |
| | **71,940** | **74,987** |

The number of employees whose emoluments amounted to £60,000 or more (excluding employer's National Insurance Contributions, benefits in kind and employer's pension contributions) during the year was as follows:

| | 2021 | 2020 |
|---|---|---|
| | **Number** | **Number** |
| £60,000 to £69,999 | 80 | 46 |
| £70,000 to £79,999 | 42 | 22 |
| £80,000 to £89,999 | 16 | 11 |
| £90,000 to £99,999 | 7 | 9 |
| £100,000 to £109,999 | 5 | 3 |
| £110,000 to £119,999 | 6 | 3 |
| £120,000 to £129,999 | - | 3 |
| £130,000 to £139,999 | 6 | 1 |
| £140,000 to £149,999 | 1 | 4 |
| £150,000 to £159,999 | 6 | 1 |
| £160,000 to £169,999 | 1 | - |
| £170,000 to £179,999 | 2 | - |
| £180,000 to £189,999 | - | 1 |
| £190,000 to £199,999 | - | 2 |
| £200,000 to £209,999 | 2 | - |
| £370,000 to £379,999 | - | 1 |
| £380,000 to £389,999 | 1 | - |

All employees earning more than £60,000 participated in one of the charitable company's pension schemes.

The emoluments of the Director of the Wellcome Sanger Institute included in the table above totalled £384,930 (2020: £372,970).

## Redundancy and termination payments

| | 2021 | 2020 |
|---|---|---|
| | **£'000** | **£'000** |
| Redundancy and termination costs | 543 | 70 |

## Directors' remuneration

The Directors of GRL received remuneration totalling £7,648 (2020: £10,250) and no Directors received travel and accommodation expenses (2020: £2,573, 6 Directors) in relation to their duties as Directors. No other benefits or expenses were reimbursed to the directors of the Charitable Company. All but three of the Directors are either salaried employees of Wellcome or Governors (Directors) of The Wellcome Trust Limited (the corporate trustee of the Wellcome Trust) and do not receive any additional emoluments for their role as Directors of the charitable company. None of these amounts are recharged to the Charitable Company.

Five directors work at, or are directors of, organisations that either received funding from the Wellcome Trust, GRL's parent, or directly from GRL. The Charitable Company has procedures in place to manage conflicts declared.

## Directors' indemnity policy

The charitable company is party to a group-wide directors and officers insurance policy which includes all of its current directors. This is not a Qualifying Third Party Indemnity Provision for the purpose of the Companies Act 2006.

## Key management personnel remuneration and benefits

Key management personnel includes members of senior management and directors as described on page 21 of the Directors' report. The employee benefits paid or payable, including pension contributions, to key management for employee services is shown below:

| | 2021<br>£'000 | 2020<br>£'000 |
|---|---|---|
| Salaries and other short-term benefits | 672 | 641 |

## 8. PENSION SCHEME

The Charitable Company operates a funded defined benefit scheme and a defined contribution scheme for its employees.

All contributions to the defined benefit scheme are held in trustee-administered funds (The Genome Research Limited Pension Plan) which is independent of the Charitable Company's finances. A full actuarial valuation of this scheme was carried out at 31 December 2018 and has been updated to 30 September 2021 by a qualified actuary, independent of the scheme's sponsoring employer. The major assumptions used by the actuary are shown below:

| | 30 September 2021<br>per annum | 30 September 2020<br>per annum | 30 September 2019<br>per annum |
|---|---|---|---|
| Inflation (RPI) | 3.30% | 3.05% | 3.15% |
| Inflation (CPI) | 2.95% | 2.70% | 2.15% |
| Salary Growth | n/a | 3.55% | 3.65% |
| Discount Rate | 2.00% | 1.75% | 1.85% |
| Allowance for revaluation of deferred pensions of RPI of 5% p.a. if less | 3.30% | 3.05% | 3.15% |
| Allowance for pension in payment increases of RPI or 5% p.a. if less | 3.15% | 2.95% | 3.05% |
| Allowance for pension in payment increases of CPI or 3% p.a. if less | 2.30% | 2.15% | 1.90% |
| Commutation of pension to cash at retirement | 90% of Post A Day | 90% of Post A Day | 90% of Post A Day |

Mortality assumptions adopted imply the following life expectancies at age 60:

| | 30 September 2021 | 30 September 2020 |
|---|---|---|
| Male retiring in 2021 (2020) | 26.5 years | 26.5 years |
| Female retiring in 2021 (2020) | 28.5 years | 28.4 years |
| Male retiring in 2041 (2040) | 28.0 years | 28.0 years |
| Female retiring in 2041 (2040) | 30.0 years | 30.0 years |

Announcements by HM Treasury and the UK Statistics Authority on 4 September 2019 propose changes to the calculation of the Retail Prices Index (RPI) to match the Consumer Price Index including Housing (CPIH) at some time from 2025 to 2030.

This could reduce RPI-linked pension benefits by as much as 1% p.a. if or when CPIH is used instead of RPI, which would lead to a reduction in RPI-linked pension liabilities, or Defined Benefit Obligation. The formal consultation on the proposed changes to RPI was launched on 11 March 2020 and the outcome of this was announced on 25 November 2020. This announcement confirmed that RPI will increase in line with CPIH from 2030. The assumptions adopted to calculate the Defined Benefit Obligation as at 30 September 2021 and 30 September 2020 were derived based on the expectation that RPI will increase in line with CPIH from 2030 and therefore, although the exact impact on the Charitable Company's scheme will depend on how markets settle after this announcement, no adjustments have been made for this proposed change within the assumption for RPI used to calculate the Defined Benefit Obligation

The full triennial actuarial valuation of the Genome Research Limited Pension Plan, carried out as at 31 December 2018, showed that the plan had a deficit of £3.3 million. Additional contributions of £5 million were made in the year ended 31 December 2019 which aimed to eliminate the funding deficit.

**Genome Research Limited**
**Notes to the Financial Statements for Year Ended 30 September 2021**

In April 2021 the Charitable Company announced that it was starting a consultation on a proposal to close the defined benefit pension scheme to further accrual. The closure took effect as of 1st October 2021. A gain on curtailment of £11.4 million has been recognised in the year ended 30 September 2021, as a reduction in expenditure.

Wellcome and GRL previously agreed with the GRL Pension Plan Trustee to put in place a Deed of Guarantee. The obligations of the Deed, guaranteed by Wellcome, are that GRL pays the necessary contribution as agreed with the Trustee and the Plan Actuary and that any deficit in the funding identified by a full actuarial valuation will be repaid over a period of five years or less. The Deed provides security to the pension scheme and allows the Pension Trustees to take a longer-term view when deciding their investment strategy.

## (i) Charge to the Statement of Financial Activities and Other Comprehensive Income over the

| | 2021 £m | 2020 £m |
|---|---|---|
| **Operating charge** | | |
| Current service cost | 15.5 | 16.0 |
| Expenses** | 0.3 | 0.4 |
| Net interest cost | 3.5 | 3.9 |
| Gains on curtailments | (11.4) | - |
| **Net charge to Statement of Financial Activities prior to actuarial loss** | **7.9** | **20.3** |
| Actuarial gain | (67.3) | (16.3) |
| **Total charge to Statement of Financial Activities** | **(59.4)** | **4.0** |

** These figures exclude insurance premiums for death in service benefits and PPF levies.

## (ii) Defined benefit costs recognised in other comprehensive income:

| | 2021 £m | 2020 £m |
|---|---|---|
| Return on plan assets (excluding amounts included in net interest cost) -gain | 58.7 | 11.0 |
| Experience gains arising on the plan liabilities | 3.9 | 1.5 |
| Effects of changes in the demographic and financial assumption underlying the present value of the plan liabilities -gain | 4.7 | 3.8 |
| **Total amount recognised in other comprehensive income - gain** | **67.3** | **16.3** |

## (iii) Reconciliation of opening and closing balances of fair value of scheme assets

| | 2021 £m | 2020 £m |
|---|---|---|
| **Fair value of scheme assets at start of year** | 274.7 | 252.9 |
| Expected return on scheme assets | 4.8 | 4.7 |
| Actuarial gains | 58.7 | 11.0 |
| Contributions by employer | 6.2 | 8.2 |
| Benefits paid & death in service insurance premiums | (1.9) | (2.1) |
| **Fair value of scheme assets at end of year** | **342.5** | **274.7** |

Analysis of the sensitivity to the principal assumptions of the value of the plan's liabilities:

| Assumption | Change in assumption | Impact on liabilities |
|---|---|---|
| Discount rate | Increase/decrease of 0.5% p.a | Decrease/increase by 15.0% |
| Rate of inflation | Increase/decrease of 0.5% p.a | Increase/decrease by 12.4% |
| Life expectancy | Increase/decrease of 1 year | Increase/decrease by 3.0% |
| Long-term rate of mortality improvement | Increase/decrease of 0.25% p.a | Increase/decrease by 1.4% |

Contributions payable to the defined benefit scheme during the year amounted to £6.2 million (2020: £8.2 million). In addition £0.6 million (2020: £0.5 million) was paid in respect of scheme administration expenses and insurance premiums for death in service benefits. The actual return on the plan assets over the period ended 30 September 2021 was £63.5m (2020: £15.7m).

The best estimate of contributions to be paid by the employer to the scheme for the year beginning after 30 September 2021 is £nil (2020: £7.9 million).

## Scheme Assets

| | 30 September 2021 | 30 September 2020 | 30 September 2019 |
|---|---|---|---|
| Equity | 341.5 | 273.6 | 252.2 |
| Other (Property, Cash, etc.) | 1.0 | 1.1 | 0.7 |
| **Total Assets** | **342.5** | **274.7** | **252.9** |

## (iv) Reconciliation of opening and closing balances of the fair value of the defined benefit obligation

| | 2021 £m | 2020 £m |
|---|---|---|
| **Scheme liabilities at start of year** | 473.5 | 455.9 |
| Current service cost | 15.5 | 16.0 |
| Expenses | 0.3 | 0.4 |
| Interest cost | 8.3 | 8.6 |
| Actuarial gains | (8.6) | (5.3) |
| Benefits paid & death in service insurance premiums | (1.9) | (2.1) |
| Gains on curtailments | (11.4) | - |
| **Scheme liabilities at end of year** | **475.7** | **473.5** |

## (v) Amounts for the current and previous four years:

| | 2021 £m | 2020 £m | 2019 £m | 2018 £m | 2017 £m |
|---|---|---|---|---|---|
| Fair value of assets | 342.5 | 274.7 | 252.9 | 231.0 | 197.6 |
| Present value of scheme liabilities | (475.7) | (473.5) | (455.9) | (344.9) | (332.6) |
| Deficit in scheme | (133.2) | (198.8) | (203.0) | (113.9) | (135.0) |
| Return on scheme assets | 58.7 | 11.0 | 6.0 | 15.2 | 29.4 |
| Experience gains (losses) on scheme liabilities | 3.9 | 1.5 | (0.7) | (0.5) | 0.6 |
| Effects of changes in the demographic and financial assumptions underlying the present value of the scheme liabilities | 4.7 | 3.8 | (86.0) | 11.7 | 48.7 |

## Defined contribution scheme

The charitable company provides a defined contribution Group Personal Pension Plan.

The amount recognised as an expense for the defined contribution scheme was:

| | 2021 £'000 | 2020 £'000 |
|---|---|---|
| Current period contributions | 3,281 | 2,609 |

Contributions paid to the defined contribution scheme during the year amounted to £3.3 million (2020: £2.6 million).

## 9. TANGIBLE FIXED ASSETS

| | Assets in the course of construction £'000 | Short leasehold buildings £'000 | Laboratory equipment, fixtures and fittings £'000 | Total £'000 |
|---|---|---|---|---|
| **Cost** | | | | |
| As at 1 October 2020 | 1,061 | 196,147 | 138,108 | 335,316 |
| Additions | 4,212 | 1,257 | 15,978 | 21,447 |
| Transfers | (1,060) | 1,001 | 59 | - |
| Disposals | - | - | (3,249) | (3,249) |
| **As at 30 September 2021** | **4,213** | **198,405** | **150,896** | **353,514** |
| | | | | |
| **Accumulated depreciation** | | | | |
| As at 1 October 2020 | - | 52,617 | 122,072 | 174,689 |
| Charge for the year | - | 4,192 | 9,987 | 14,179 |
| Disposals | - | - | (3,218) | (3,218) |
| **As at 30 September 2021** | - | **56,809** | **128,840** | **185,650** |
| | | | | |
| **Net book value at 30 September 2021** | **4,213** | **141,596** | **22,055** | **167,864** |
| | | | | |
| Net book value at 30 September 2020 | 1,061 | 143,530 | 16,036 | 160,627 |

## 10. PROGRAMME RELATED INVESTMENTS

| | 2021 £'000 | 2020 £'000 |
|---|---|---|
| **Unquoted programme related investments** | | |
| At 1 October | 4,331 | 4,331 |
| Realised gains | 8,073 | - |
| Unrealised gains | 67 | - |
| Disposals | (8,073) | - |
| **At 30 September** | **4,398** | **4,331** |

Unquoted programme related investments represent the fair value of the Institute's holding of ordinary share capital of VHSquared Limited (5%), Microbiotica Ltd (8%) and Congenica Ltd (3%). Kymab (1% holding) was sold in the year for £8.1m, with the possibility of future milestone payments (see note 18: Contingent assets and contingent liabilities), the gain has been recognised as investment income in the year.

Investments in subsidiaries as at 30 September 2021 and 2020 were held at £1 (see note 20).

## 11. TAXATION

The Company is a registered charity, and as such is entitled to certain tax exemptions on income and profits from investments, and surpluses on any trading activities carried on in furtherance of the charity's primary objectives, if these profits and surpluses are applied solely for charitable purposes.

The estimated cost of irrecoverable VAT suffered by the charitable company was £4.0 million (2020: £3.0 million). This amount is charged in the accounts with its related expenditure.

## 12. STOCKS & WORK IN PROGRESS

| | 2021 | 2020 |
|---|---|---|
| | £'000 | £'000 |
| Raw materials and consumables | **13,681** | **10,894** |

In the opinion of the Directors, replacement costs of stocks would not differ materially from that stated above.

## 13. DEBTORS

| | 2021 | 2020 |
|---|---|---|
| | £'000 | £'000 |
| Trade debtors | 11,876 | 3,987 |
| Amounts owed by parent and group undertakings | 36,618 | 24,584 |
| Prepayments | 8,646 | 7,807 |
| Accrued income | 2,713 | 5,455 |
| Other debtors | 1,286 | 4,993 |
| | **61,139** | **46,826** |

Prepayments relate to annual service and maintenance contracts paid in advance. Accrued income relates to work undertaken on third party grants in advance of funding being received. Amounts owed by parent and group undertakings are unsecured, interest free, have no fixed date of repayment and are repayable on demand.

## 14. CREDITORS: amounts falling due within one year

| | 2021 | 2020 |
|---|---|---|
| | £'000 | £'000 |
| Trade creditors | 15,461 | 3,545 |
| Taxation and social security | 1,637 | 1,296 |
| Other creditors | 1,774 | 1,108 |
| Payroll creditors | 343 | 257 |
| Accruals for grants payable | 450 | 450 |
| Other accruals | 7,622 | 4,298 |
| Deferred income | 26,085 | 38,519 |
| | **53,372** | **49,473** |

**Genome Research Limited**
**Notes to the Financial Statements for Year Ended 30 September 2021**

## 15. CREDITORS: amounts falling due after one year

| | 2021 £'000 | 2020 £'000 |
|---|---|---|
| Between one and five years - deferred lease premium | 2,130 | 2,130 |
| More than five years - deferred lease premium | 14,503 | 15,035 |
| | **16,633** | **17,165** |

| Deferred income | Lease premium | Grant income | Trading contracts | 2020 £'000 |
|---|---|---|---|---|
| **At 1 October** | 17,698 | 20,883 | 17,103 | 55,684 |
| Received during the year | - | 13,187 | 30,352 | 43,539 |
| Released to income during for the year | (533) | (14,322) | (41,651) | (56,506) |
| **At 30 September** | **17,165** | **19,748** | **5,804** | **42,717** |

The deferred lease premium of £17.1 million (2020: £17.7 million), including a short term element of £0.5 million (2020: £0.5 million), relates to a lease premium received from the European Bioinformatics Institute. The deferred grant income of £19.8 million (2020: £20.9 million) relates to cash received in advance from third party grantors. Deferred income on trading contracts relates to amounts invoiced in advance of services performed, of which £4.5 million (2020: £16.0 million) relates to the UK Biobank consortium contract to sequence whole genomes.

## 16. PROVISIONS

| | 2021 £'000 | 2020 £'000 |
|---|---|---|
| Amounts owed in respect of employee share of investment gain | 2,721 | 2,598 |
| Amounts owed in respect of transferring faculty members | 1,588 | 1,545 |
| Amounts owed in respect of the closure of the Research Support Facility | 673 | 1,377 |
| Amounts owed in respect of bonuses | 393 | - |
| | **5,375** | **5,520** |

| | Investments | Faculty | RSF | Bonus | 2021 £'000 | 2020 £'000 |
|---|---|---|---|---|---|---|
| **At 1 October** | 2,598 | 1,545 | 1,377 | - | 5,520 | 6,879 |
| Charge during the year | 5,423 | 1,567 | 462 | 393 | 7,845 | 670 |
| Released during the year | - | (16) | - | - | (16) | (445) |
| Utilised during the year | (5,300) | (1,508) | (1,166) | - | (7,974) | (1,584) |
| **At 30 September** | **2,721** | **1,588** | **673** | **393** | **5,375** | **5,520** |

Under the terms of the translation policies in place at the time of the investments incorporation, employees are entitled to a share of any crystallised gains made in relation to certain of the programme related investments listed in note 10.

Certain members of faculty are awarded a transition allowance to continue their existing research outside of the Institute. The provision for faculty member transfers represents amounts committed to furthering this research at another institution. The release during the year represents amounts spent at the Charitable Company in lieu of being paid to another Institution. The timing and amount payable are uncertain as these are yet to be finalised with the receiving institutions.

In May 2019, GRL announced the decision to close the Research Support Facility (RSF) and mouse pipelines. The RSF provision represents redundancy and retention costs arising as a result of that announcement, which are dependent on how long an individual stays in employment, as well as the estimated cost of decommissioning the facility. The facility closed in full on 30 September 2021.

In September 2021 GRL announced the decision to award bonuses to certain staff members who had performed above expectations in the year. The bonus provision represents an estimate of amounts expected to be paid under this scheme.

## 17. COMMITMENTS

As at 30 September 2021 there were £3.0 million capital commitments contracted but not accrued relating to the installation of new chillers across our campus buildings and a new modular building for sequencing (2020: £0.8 million relating to the West Pavilion redevelopment). This represents the proportion of the development work that is yet to be carried out.

The Charitable Company has made available a facility for its trading subsidiary, Genome Research Trading Limited, to draw down cash in the form of a loan up to the value of £0.7 million, in order to provide working capital through the period of Campus closure as a result of the COVID-19 pandemic and until the Conference Centre can become fully operational again.

## 18. CONTINGENT ASSETS AND CONTINGENT LIABILITIES

The terms of the sale of the investment in Kymab included certain contingent consideration payable on achievement of certain milestones, as well as amounts held in escrow. The first escrow payment was received on 1 November 2021. As the achievement of these milestones is outside of the control of the Charitable Company, no asset has been recognised as of 30 September 2021, other than the escrow payment received. Based on discussion with management, we expect future discounted cash flows in relation to these milestones to total £0.9m. Under the terms of the employee share scheme in place at the time the Company was incorporated, employees are entitled to two thirds of any crystalised gain (see note 16: Provisions). The maximum future cash flows is £3.4 million and corresponding liability of £2.2 million.

Certain members of faculty are awarded a transition allowance to continue their existing research outside of the Institute (see note 16: Provisions). Faculty members may negotiate whether they use the funds to continue their work at the Charitable Company or transfer the funds to a new institute. A provision is recognised at the point that it becomes likely funds will be transferred. As at 30 September 2021, a total of £1.5 million had been awarded to individuals who had yet to reach an arrangement with a new institute.

## 19. ULTIMATE PARENT UNDERTAKING & CONTROLLING PARTY

The directors regard the Wellcome Trust as the ultimate parent company and controlling party, which is the smallest and largest group to consolidate these Financial Statements. Copies of the Wellcome Trust Annual Report and Financial Statements can be viewed on its website – https://wellcome.ac.uk/what-we-do/reports. Alternatively, they may be obtained from the Company Secretary. The registered address for Wellcome Trust is 215 Euston Road, London, NW1 2BE. The Wellcome Trust's principal activities are to protect, preserve and advance health and welfare and to advance and promote knowledge of biosciences. Further information can be found in the Constitution section on page 50.

## 20. RELATED PARTY TRANSACTIONS

The Charitable Company is wholly-owned by the Wellcome Trust and has applied the exemption in paragraph 33.1A of FRS 102 "Related Party Transactions". The exemption permits the non-disclosure of transactions entered into between two or more members of a group, provided that any subsidiary undertaking which is a party to the transaction is wholly-owned by a member of that group.

Related party transactions with Trustees are disclosed in note 7. Details of the Company's subsidiaries as at 30 September 2021 are as follows:

| Name of subsidiary and company number | Proportion of ownership interest | Proportion of voting power held | Principal Activity |
|---|---|---|---|
| Genome Research Trading Limited (10058101) | 100% | 100% | Facilities Management |
| Hinxton Hall Limited* (03062160) | 50% | 50% | Education / Facilities Management |
| Genome Research Pension Trustee Limited (09186099) | 100% | 100% | Dormant |
| Mosaic Therapeutics Limited (12780154) | 100% | 100% | Cancer Research |
| GRL Construction Limited (09280062) | 100% | 100% | Construction |

*The remaining 50% is held by the Wellcome Trust.

All of the Company's subsidiaries are registered in England and Wales. Their registered address is 215 Euston Road, London, NW1 2BE.

The Wellcome Trust provide the Company with an open-ended facility to exchange dollars at a favourable rate. The Company recognised a gain in relation to this arrangement in the year ended 30 September 2021 of £0.5m (2020: £1.9m).

**Genome Research Limited**
**Notes to the Financial Statements for Year Ended 30 September 2021**

## 21. MOVEMENT IN FUNDS

| | 1 October 2020 £'000 | Incoming £'000 | Outgoing £'000 | Gains £'000 | 30 September 2021 £'000 |
|---|---|---|---|---|---|
| Building development | 125,581 | 2,322 | (4,192) | - | 123,711 |
| Capital equipment | 9,620 | 17,207 | (9,886) | - | 16,941 |
| Research fund | 15,518 | 129,800 | (128,581) | - | 16,737 |
| **Restricted income funds** | **150,719** | **149,329** | **(142,659)** | **-** | **157,389** |
| Endowment fund | 654 | 16 | - | - | 670 |
| Pension deficit | (198,800) | - | (1,700) | 67,300 | (133,200) |
| **Total Restricted Funds** | **(47,427)** | **149,345** | **(144,359)** | **67,300** | **24,859** |
| Investment fund | 1,733 | 8,073 | (5,422) | 67 | 4,451 |
| Unrestricted fund | 7,875 | 64,040 | (58,094) | - | 13,821 |
| **Total Unrestricted funds** | **9,608** | **72,113** | **(63,515)** | **67** | **18,272** |
| **Total Charity Funds** | **(37,819)** | **221,458** | **(207,875)** | **67,367** | **43,131** |

| | 1 October 2019 £'000 | Incoming £'000 | Outgoing £'000 | Losses £'000 | 30 September 2020 £'000 |
|---|---|---|---|---|---|
| Building development | 127,130 | 2,620 | (4,169) | - | 125,581 |
| Capital equipment | 14,705 | 4,767 | (9,852) | - | 9,620 |
| Research fund | 15,073 | 117,338 | (116,893) | - | 15,518 |
| **Restricted income funds** | **156,908** | **124,725** | **(130,914)** | **-** | **150,719** |
| Endowment fund | 638 | 16 | - | - | 654 |
| Pension deficit | (203,000) | - | (12,100) | 16,300 | (198,800) |
| **Total Restricted Funds** | **(45,454)** | **124,741** | **(143,014)** | **16,300** | **(47,427)** |
| Investment fund | 1,733 | - | - | - | 1,733 |
| Unrestricted fund | 5,085 | 31,653 | (28,863) | - | 7,875 |
| **Total Unrestricted funds** | **6,818** | **31,653** | **(28,863)** | **-** | **9,608** |
| **Total Charity Funds** | **(38,636)** | **156,394** | **(171,877)** | **16,300** | **(37,819)** |

The building development fund relates to expenditure on leasehold buildings. The capital equipment fund relates to funding for other fixed assets. The research fund represents net income relating to non-asset expenditure incurred in running the Charitable Company during the year. The investment fund represents the increase in fair value of the Charitable Company's investments in unquoted securities, net of amounts owing to inventors and employees. The endowment fund is an expendable endowment. Research, capital and building funds are subject to conditions set by grantors and are therefore restricted. The unrestricted reserves represent net income generated from non-grant funded activities that can be allocated at the discretion of the Directors.

The assets and liabilities of each category of funds were as follows as of 30 September 2021:

| | Restricted | Endowment | Pension | Unrestricted | Total |
|---|---|---|---|---|---|
| | £'000 | £'000 | £'000 | £'000 | £'000 |
| Fixed assets | 167,864 | - | - | - | **167,864** |
| Investments | - | - | - | 4,398 | **4,398** |
| Current assets | 56,441 | 670 | - | 22,338 | **79,449** |
| Current liabilities | (47,629) | - | - | (5,743) | **(53,372)** |
| Long term creditors | (16,633) | - | - | - | **(16,633)** |
| Provisions | (2,654) | - | - | (2,721) | **(5,375)** |
| Pensions | - | - | (133,200) | - | **(133,200)** |
| | **157,389** | **670** | **(133,200)** | **18,272** | **43,131** |

The assets and liabilities of each category of funds were as follows as of 30 September 2020:

| | Restricted | Endowment | Pension | Unrestricted | Total |
|---|---|---|---|---|---|
| | £'000 | £'000 | £'000 | £'000 | £'000 |
| Fixed assets | 160,627 | - | - | - | **160,627** |
| Investments | - | - | - | 4,331 | **4,331** |
| Current assets | 42,686 | 654 | - | 24,841 | **68,181** |
| Current liabilities | (32,507) | - | - | (16,966) | **(49,473)** |
| Long term creditors | (17,165) | - | - | - | **(17,165)** |
| Provisions | (2,922) | - | - | (2,598) | **(5,520)** |
| Pensions | - | - | (198,800) | - | **(198,800)** |
| | **150,719** | **654** | **(198,800)** | **9,608** | **(37,819)** |

## 22. COMPARATIVE STATEMENT OF FINANCIAL ACTIVITIES

| | Note | 2020 £'000 Unrestricted | 2020 £'000 Endowment | 2020 £'000 Restricted | 2020 £'000 Total funds |
|---|---|---|---|---|---|
| **INCOME** | | | | | |
| Income from charitable activities | 3 | - | - | 112,581 | 112,581 |
| Income from other trading activities | | 31,653 | - | 12,053 | 43,706 |
| Interest | | - | 16 | 91 | 107 |
| **Total income** | | **31,653** | **16** | **124,725** | **156,394** |
| **EXPENDITURE** | | | | | |
| Charitable activities | 4 | (28,863) | - | (143,014) | (171,877) |
| **Total expenditure** | | **(28,863)** | **-** | **(143,014)** | **(171,877)** |
| Unrealised loss on investments | 10 | - | - | - | - |
| **Net income (expenditure)** | | **2,790** | **16** | **(18,289)** | **(15,483)** |
| **Other recognised gains** | | | | | |
| Actuarial gains on defined benefit pension scheme | 8 | - | - | 16,300 | 16,300 |
| **Net movement in funds** | | **2,790** | **16** | **(1,989)** | **817** |
| **Total funds (deficit) brought forward at 1 October** | 21 | 6,818 | 638 | (46,092) | (38,636) |
| **Total funds (deficit) carried forward at 30 September** | | **9,608** | **654** | **(48,081)** | **(37,819)** |

## 23. POST BALANCE SHEET EVENTS

On 1 December 2021 a decision was made by the project steering board to terminate the planned construction of the new modular building for sequencing. As at 30 September 2021, the Charitable Company had incurred costs of £1.1 million in relation to design fees and materials, held as assets in the course of construction on the balance sheet. It also had committed costs in relation to this project of £2.2 million. It is likely that the Charitable Company can negotiate a reduction in these costs or that materials, particularly steel, can be repurposed or sold, however this is uncertain.

# Reference and administrative information

## Constitution

The Company is a charity registered in England with the Charity Commission under the Charities Act 1993, as amended by the Charities Act 2011 (Charity registration number 1021457) and is a company limited by guarantee and registered in England (Company number 2742969). The sole member of the charitable company is The Wellcome Trust Limited (Company number 2711000, incorporated in the UK), as trustee of the Wellcome Trust (Charity registration number 210183, registered in England and Wales). In the event of the charitable company being wound up, the liability in respect of the guarantee is limited to £1.

## Directors

The Directors of the Charitable Company who were in office during the year and up to the date of signing the financial statements were:

Sir Jeremy Farrar (Wellcome Trust)
Dame Kay Davies
Dr Paul Schreier (Wellcome Trust)
Dr Daniel Mahony
Ms Cheryl Moore (Wellcome Trust)
Dr Nicole Mather
Sir James Smith (Wellcome Trust) (Resigned 21 July 2021)
Mr Daniel Abrams
Professor Gilean McVean
Dame Cilla Snowball (Wellcome Trust—Governor)

## Company Secretary

Nadia Meliti

## Registered Office

The Wellcome Trust
Gibbs Building
215 Euston Road
London
NW1 2BE

## Principal Place of Business

Wellcome Genome Campus
Hinxton
Cambridge
CB10 1SA

## Independent Auditors

Deloitte LLP
Statutory Auditor
1 New Street Square
London
EC4A 3HQ

## Bankers

National Westminster Bank plc
King's Parade Branch
Bene't Street
Cambridge
CB2 3PU

## Solicitors

CMS Cameron McKenna
Mitre House
160 Aldersgate Street
London
EC1A 4DD

Cambridge Employment Law
Stratford House
Ousden, Newmarket
Suffolk
CB8 8TN

## Actuary

Jardine Lloyd Thompson
St James's House
7 Charlotte Street
Manchester
M1 4DZ