

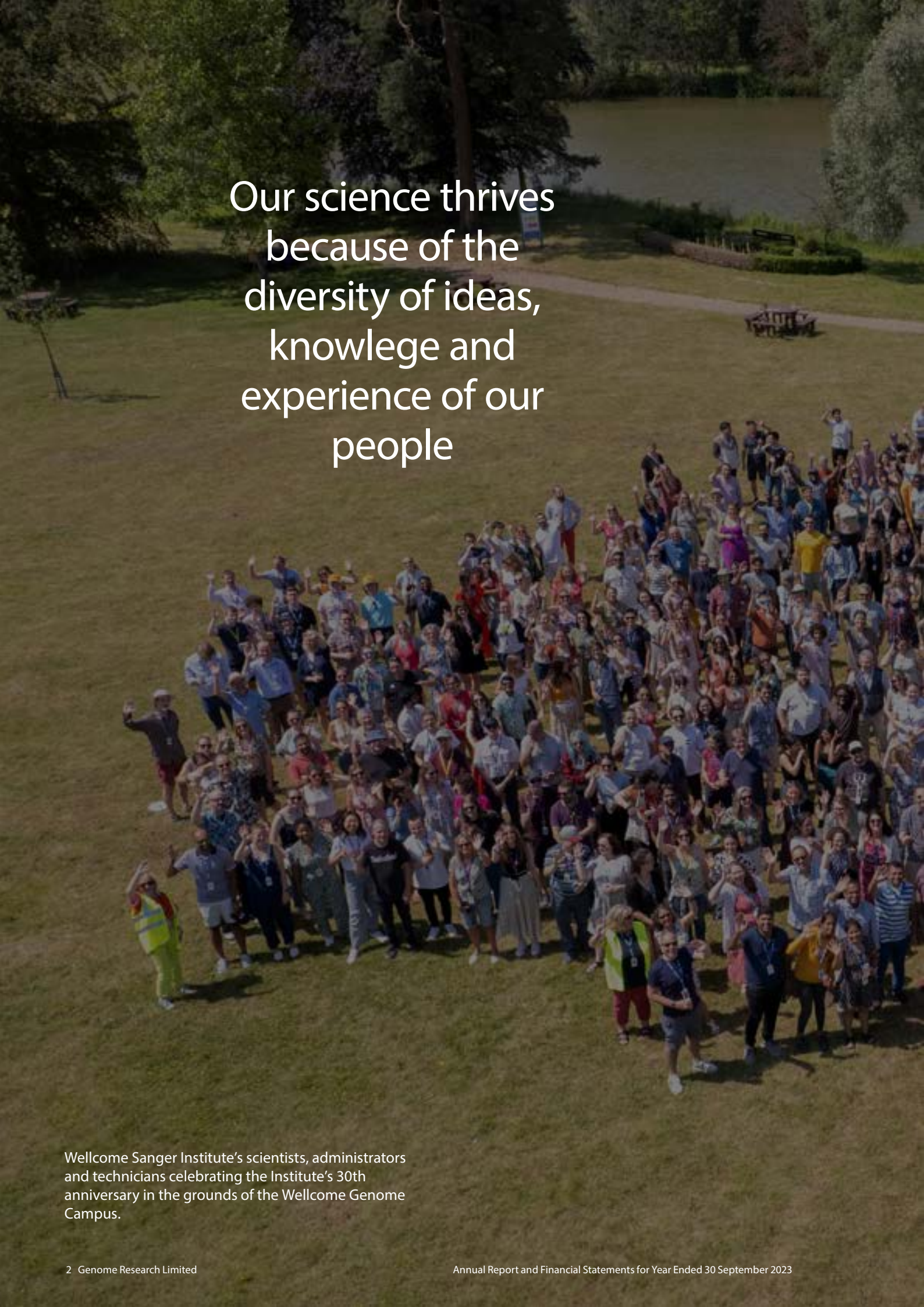


Genome Research Limited

Annual Report and
Financial Statements

For year ended 30 September 2023

We apply and explore
genomic technologies
at scale to advance
understanding of
biology and improve
health



Our science thrives
because of the
diversity of ideas,
knowlege and
experience of our
people

Wellcome Sanger Institute's scientists, administrators and technicians celebrating the Institute's 30th anniversary in the grounds of the Wellcome Genome Campus.

Introduction

- 5 Chief Executive's Introduction
- 6 Timeline of Highlights

Trustees' Report

- 8 Objectives and Activities
- 10 Strategic Report
- 10 Achievements and Performance
- 17 Section 172 Statement
- 19 Financial Review
- 22 Principal Risks and Uncertainties
- 24 Structure, Governance and Management
- 27 Employee Engagement Statement
- 29 Statement of Directors' Responsibilities
- 30 Independent Auditor's Report

Financial Statements

- 33 Statement of Financial Activities
 - 34 Balance Sheet
 - 35 Notes to the Financial Statements
 - 55 Reference and Administrative Information
-

Feri Torabi changing culture media on skin cell organoids, laboratory. Image Credit: Greg Moss / Wellcome Sanger Institute

We employ our unique
scale and operations
to deliver cutting-edge
data generation and
analysis

Chief Executive's introduction

It has been my honour to become the new Director of Genome Research Limited (GRL) which operates as the Wellcome Sanger Institute (Sanger) and includes Connecting Science. I take over this role from Professor Sir Mike Stratton under whose guidance, the organisation successfully maintained the continuity of its world-leading science through Brexit and the lockdowns of the COVID-19 pandemic. Not only has the Wellcome Sanger Institute continued to deliver broad insights into the genomics of health and disease, it also helped to create a nationwide system of genomic surveillance of the COVID-19 virus that has changed Government and public health policy

Three initiatives have been developed by the Wellcome Sanger Institute that are driving a new paradigm in genomic surveillance across the world. Grasping the opportunities and partnerships resulting from its experience in delivering nationwide genomic surveillance through DNA sequencing and computational analysis, the Sanger Institute has launched the Respiratory Virus and Microbiome Initiative and the Genomic Surveillance Unit, and has also delivered global genomic surveillance training in association with COG-TRAIN.

Geopolitical events and the rising cost of energy that are driving broader inflationary pressures have the potential to damage Sanger's capacity to deliver scientific impact. Our large-scale data generation and data analysis capabilities require substantial resources to operate, and thus enable fine-grained analysis of life at the cellular and molecular level. Rather than reducing our ambition, Sanger's scientists, technicians and administrators have embraced this as an opportunity to improve our sustainability, reduce our carbon footprint and extract the maximum value from our machines, laboratory space and processes.

For example, the Wellcome Sanger Institute has introduced a BioResource Legacy project to assess 28 million samples stored across the BioResource team ULT freezers. The project's ultimate goal is to reduce the required fleet of freezers from 60 to only 14 of the most energy efficient. It will ensure that vital scientific resources required for reproducibility into the future are stored securely, sustainably and will be easier to retrieve. The work is already bearing fruit with six freezers emptied, preventing 7,773kg of carbon dioxide emissions a year, and the energy required to make 20,853 cups of tea.

Our Tree of Life programme is devising new ways to deliver high-quality reference genomes for all eukaryotic life in the UK at speed and scale. The teams celebrated generating their 1,000th species' genome sequence and their insights will help conservationists seeking to retain and promote biodiversity.

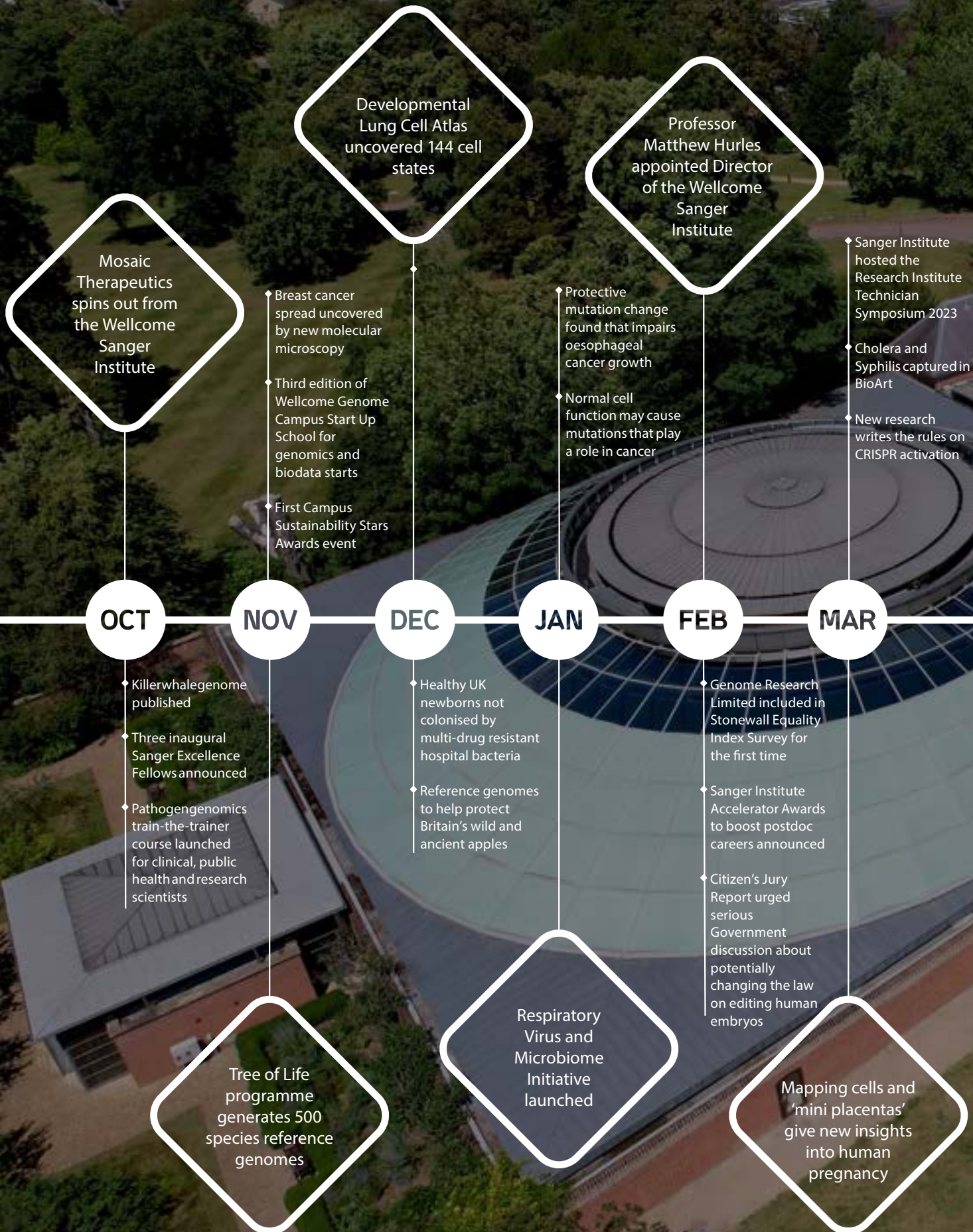
Our Genomics Innovation Team enabled the spinning out of Sanger's latest companies – Mosaic Therapeutics, Quotient Therapeutics and Ensocell. Mosaic Therapeutics and Quotient Therapeutics are founded on research from the Wellcome Sanger Institute's Cancer, Ageing and Somatic Mutation programme, and Ensocell was founded from the Cellular Genetics programme. All are developing drug discovery platforms based on genomic analyses.

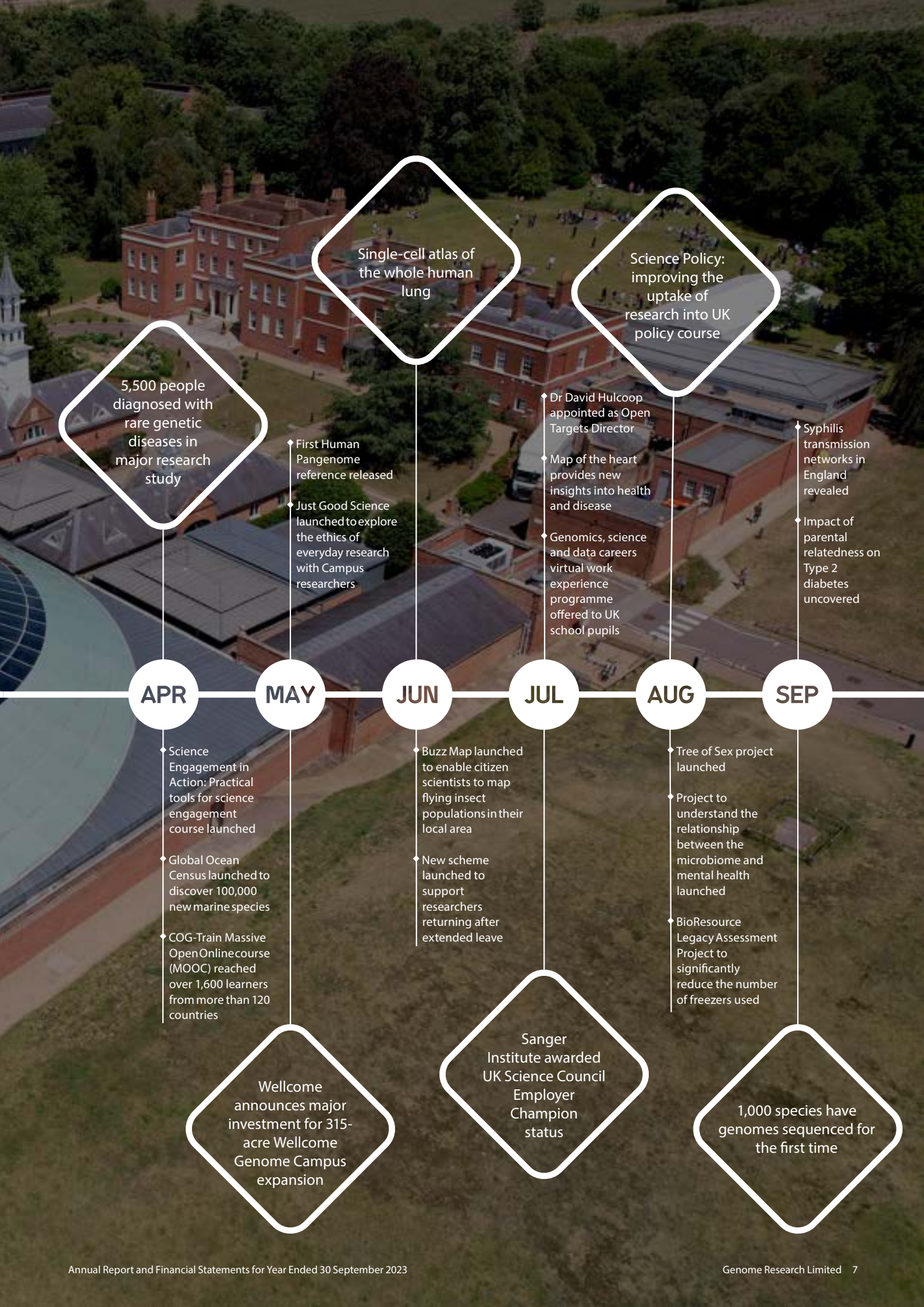
I am proud that Sanger's work is founded on the diversity of thought and experience of all its staff. Over the past 10 years, our Equality, Diversity and Inclusion team (supported by managers and staff across Sanger) have built networks of support, changed policies and lowered barriers to entry to create an environment where all our researchers and staff can thrive. As part of this work, we welcomed our inaugural Sanger Excellence Research Fellows. The Fellowships are specifically designed to support the training and career development of scientists from Black heritage backgrounds. Our first three fellows will be powering the Institute's research into pathogen genomics, blood cancer development and how proteins work together to create and sustain eukaryotic life.

This past year also saw the start of an exciting new phase for the Wellcome Genome Campus. With funding from Wellcome and local planning permission approval, ground has been broken to triple the size of the Wellcome Genome Campus and lay the foundations for the largest hub of genomic expertise in the world. This will enable organisations from the academic, clinical and pharmaceutical worlds to collaborate, innovate and share their knowledge to derive new insights and understanding, powering the next wave of genomic discovery.

Professor Matthew Hurles,
Director and Chief Executive Officer, Wellcome Sanger Institute

2023 timeline





5,500 people diagnosed with rare genetic diseases in major research study

APR

- Science Engagement in Action: Practical tools for science engagement course launched
- Global Ocean Census launched to discover 100,000 new marine species
- COG-Train Massive OpenOnlinecourse (MOOC) reached over 1,600 learners from more than 120 countries

Wellcome announces major investment for 315-acre Wellcome Genome Campus expansion

Single-cell atlas of the whole human lung

- First Human Pangenome reference released
- Just Good Science launched to explore the ethics of everyday research with Campus researchers

MAY

JUN

- Buzz Map launched to enable citizen scientists to map flying insect populations in their local area
- New scheme launched to support researchers returning after extended leave

Sanger Institute awarded UK Science Council Employer Champion status

JUL

Science Policy: improving the uptake of research into UK policy course

- Dr David Hulcoop appointed as Open Targets Director
- Map of the heart provides new insights into health and disease
- Genomics, science and data careers virtual work experience programme offered to UK school pupils

AUG

- Tree of Sex project launched
- Project to understand the relationship between the microbiome and mental health launched
- BioResource Legacy Assessment Project to significantly reduce the number of freezers used

1,000 species have genomes sequenced for the first time

SEP

- Syphilis transmission networks in England revealed
- Impact of parental relatedness on Type 2 diabetes uncovered

Trustees' Report

Software developer Andrew Varley developing software.
Image Credit: Mark Danson / Wellcome Connecting Science

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 2023.

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 knowledge exchange and discussion of the scientific, medical and wider implications of genomes

Vision

The long-term ambition of GRL is to build on its well-established scientific foundations with a view to strengthen the position of the Wellcome Genome Campus as an international centre for scientific, business, cultural and educational activities emanating from genomes and biodata. GRL will continue taking opportunities and tackling challenges presented by the rapid advancement of genomic technologies through conducting Faculty-driven genomic science and making discoveries not easily made elsewhere.

The objectives are delivered via three main activities as follows:

- Research (via Wellcome Sanger Institute)
- Learning and Engagement (via Wellcome Connecting Science)
- Innovation (via Enterprise and Innovation)

Mission

The mission of GRL is to maximise the societal benefit of knowledge obtained from genome sequences. We continue conducting science at scale, driving and taking advantage of developments in genomic technologies, and delivering cutting-edge data generation and analysis.

Wellcome 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 Wellcome Sanger Institute applies and explores genomic technologies at scale to advance understanding of biology and improve health.

To achieve this goal, we conduct basic discovery and translational research delivered across scientific research programmes and an Associate Research Programme, the high level aspirations for each Programme within the current quinquennium are shown below:

The Cancer, Ageing and Somatic Mutation Programme uses genome sequencing and experimental models to study the causes and consequences of somatic mutations through the course of life, across organ systems, in health and in disease.

The Cellular Genetics Programme uses transcriptome sequencing and microscopic spatial tissue imaging to redefine the repertoire of human cell types, and to understand their functional states and relationships in health and disease, during development and adulthood.

The Human Genetics Programme uses genome sequencing and experimental cell models to understand the genetic causes and biological mechanisms of disease susceptibility and progression, focusing on developmental disorders and diseases of the blood and immune system, transforming the clinical utility of human genetic variation.

The Parasites and Microbes Programme uses genome sequencing to generate large longitudinal datasets over time, transforming understanding of the evolutionary dynamics of disease-causing bacteria, protozoa, helminths, mosquitoes and the human microbiome with application in pathogen surveillance for disease control.

The Tree of Life Programme uses new sequencing technologies to produce high quality reference genomes across the diversity of eukaryotic life, analysing the data to understand life's origins, conserve biodiversity and provide the underpinnings of a new biotechnology

The Associate Research Programme (currently comprised of Health Data Research UK, Open Targets, COSMIC, the Genomic Surveillance Unit and our Associate Faculty) will continue to diversify, enrich and strengthen the organisational science portfolio through strategically designed partnership programmes and Associate Faculty.

We continue pursuing scientific discoveries using large-scale, high-throughput biology, often incorporating systematic genome-wide screens. To carry out our research, we create vast data generation platforms in DNA sequencing and cellular genetics, microscopic and spatial imaging, with an accompanying large IT platform to deliver 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 and eukaryotic cells. These studies of genome variation provide insights into human and pathogen evolution, the phenotypic consequences of genome variation and the processes which cause mutations. Our research generates deeper understanding of the genetic causes, pathogenesis and epidemiology of human disease, of human development and ageing, of human gene function and the evolution, function and interactions of life on earth. We aim to identify therapeutic and vaccine targets, to explore the genomic changes influencing sensitivity, resistance to such agents and to aid the conservation of biodiversity and support biotechnology. By strategically deploying our Wellcome core funding, we are able to take a long-term view and take scientific risks which lead to new research fields and pivot our science in new directions.

The Wellcome Sanger Institute sits at the centre of a global network of science. We pride ourselves on being collaborative, and take opportunities to convene and engage proactively with researchers external to the Institute, enabling and empowering their science and extending our scientific repertoire through their biological insights and questions. Internally, we provide world-class training to scientists and specialists in genomic research, supporting them throughout their careers. A significant proportion 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.

Wellcome Connecting Science

Wellcome Connecting Science's mission is to enable everyone to explore genomic science and its impact on research, health and society.

Drawing on the ground-breaking research taking place on the Wellcome Genome Campus, Connecting Science inspires new thinking, sparks conversation, supports learning, and understands global attitudes and perspectives. We connect researchers, health professionals and the wider public, creating opportunities and spaces to explore genomic science and its relationship with people, and the world around us.

Enterprise and Innovation

The enterprise and innovation functions of the institute are delivered by the Genomics Innovation team.

Our vision is to be recognised as a centre of excellence for the translation of genomics and biodata. The team works towards applying Sanger science to benefit society by:

- Unlocking entrepreneurial talent
- Commercialisation and business creation
- Leveraging the growing Campus ecosystem to support innovators

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



Simon Binley, Data Centre Manager, inspecting the servers within the Wellcome Genome Campus' Data Centre. Image credit: Greg Moss / Wellcome Sanger Institute

Achievements and Performance

i) The Wellcome Sanger Institute

Over the past year the major theme has been transition and this annual report clearly reflects this change.

After 12 years in post, in February 2022, Mike Stratton announced his intention to stand down as Director of the Institute and Chief Executive Officer of the Wellcome Genome Campus. The Board of GRL began a global search to recruit a successor.

In February 2023, Professor Matt Hurles was appointed as the new Director of the Institute and Matt formally became Director in May 2023. Matt had been Head of the Human Genetics Programme at the Wellcome Sanger Institute since 2017 and his work focuses on deciphering the genetic causes of severe developmental disorders. Mike will remain at the Sanger Institute within the Cancer, Ageing and Somatic Mutation programme to continue conducting cancer research and participating in the life of the Institute.

This transition period was utilised as an opportunity to refine the organisational strategy and refocus on the scientific strategy at a point midway between review cycles, aligning with the new

Director's strategic priorities. As a result the Institute is embedding a revised governance structure and has created a Culture Committee to align activities and initiatives that shape our culture and research environment. Included in the scientific changes will be the establishment of a new scientific programme in Generative Genomics, to edit and engineer genomes at scale to predict how genes and genomes work.

The scientific questions asked and the technologies used within the Institute are constantly evolving to maintain the novelty of our research. This year we successfully onboarded three new faculty members and their teams, and established the Respiratory Virus Initiative based within the Parasites and Microbes Programme. A cohesive Information and Digital Solutions plan was embedded to support data generation, interrogation and sharing, and a new scientific platform Multiplex Assays of Variant Effect (MAVE) was bought online to support a new cross-programme initiative to understand all possible variants of human genes using mutational scanning technologies. Significant appointments have been made in the Wellcome Sanger Institute partnership programmes including new leadership of COSMIC and Open Targets.

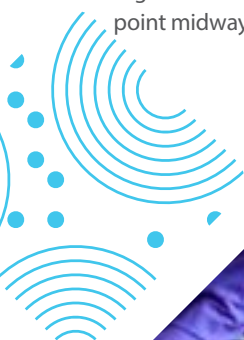
The coming year will focus on consolidation of the Wellcome Sanger Institute's scientific vision, further embedding robust governance processes and strengthening of organisational culture.

Key Performance Indicators

Within the current quinquennium (the five year core funding envelope from Wellcome), GRL will annually assess itself against four key metrics relating to the four major challenge areas below:

Remain a global research leader - we assess our scientific impact through analysis of bibliometric data in relation to our research outputs, data sharing and collaboration. We take on translational challenges that arise from our research and capabilities, and nurture the new generation of scientists and specialists in genomic research through providing world-class training.

Recruit and retain our thought leaders - to enable delivery of our Faculty-driven genomic science, 3 new faculty members have



been onboarded in addition to the 7 new faculty members who joined the Institute during the previous reporting period, meeting the target of 10 new faculty.

Maintain the level and scale of funding - in order to maintain our position as a leader in our field we need continued investment through Wellcome and external funders. We lead, convene and engage with collaborators across the globe, strategically deploying our Wellcome core funding to enable long-term thinking and taking on scientific risks to deliver research, data and discoveries not easily made elsewhere.

Maintain our position at the leading edge of technology - we conduct regular reviews of our sequencing infrastructure, to ensure we are considering the right technologies for future Sanger science. The five year deliverables are designed to stretch our scientific capabilities, employing our unique scale and operations to deliver cutting-edge data generation and analysis.

Five year deliverables

Each of our scientific Programmes have developed a five year plan comprising of two high level projects with three large scale aims each. Each of these aims have specified deliverables, some of which contribute to the broader institute deliverables shown below. These are monitored within the programmes and are expected to change through the five year period as technology and scientific techniques evolve and the global genomics environment changes, at all times ensuring the science remains large-scale and at the forefront of genomic science.

During the 2022-2023 financial year, we established an annual update to Wellcome in line with the requirements outlined in the GRL 2021-2026 quinquennium funding letter. An initial version was submitted in November 2023. This update will capture an overview of organisational wide activities and objectives of the five scientific programmes, the Wellcome Connecting Science Programme, the Associate Research Programme, Leadership and Governance, Risk, Equality, Diversity and Inclusion (EDI), Research Environment, Culture, and Impact. As well as providing Wellcome with an overview of the Wellcome Sanger Institute's activities, it aims to:

- Improve visibility of activities and progress across the Wellcome Sanger Institute
- Provide an understanding to the Wellcome Sanger Institute's overall contribution to the Wellcome portfolio
- Guide strategic alignment and partnership with our core funder in areas of synergy
- Allow better scoping of new opportunities

In tandem, an EDI reporting plan and Representative Research Strategy are being developed in consultation and collaboration with Wellcome and will feed into the 2024 annual update.

In order to support the operational delivery of these scientific ambitions, GRL has continued to develop an Objectives and Key Results (OKRs) approach during the year, following a successful roll out in 2022. OKRs provide a standard approach for operational team objective setting designed to focus and align efforts towards delivering the organisation's strategic mission. Each quarter, leaders from each Scientific Programme highlight their top priority

operational requirements, and then operational departments set and monitor priority objectives with measurable targets aligned to those needs. Across our operational teams we track and report our Key Performance Indicators to ensure we are delivering the operational support to the science that is needed to achieve our overall mission and key deliverables. These include capacity and utilisation metrics as well as savings targets for money and power utilisation.

Scientific Impact

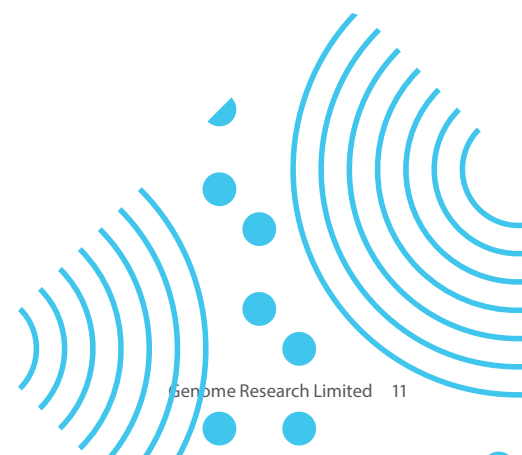
The Wellcome Sanger Institute uses genome sequences to increase understanding of human, pathogen and eukaryotic biology in order to advance understanding of biology and improve health. The science at scale that underpins the Wellcome Sanger Institute's cutting-edge research means that the Institute can take on projects that tackle some of the most difficult challenges in genomic research.

Our research aims to change how the world thinks about biology and human health. Fundamental discovery research constitutes most of GRL's activity and is evaluated using both quantitative and qualitative impact indices. We assess our impact through evaluating six areas of organisational activity. These do not capture every element of work carried out within GRL, but they represent key areas for evaluating our work against the Institute's mission and articulate the underpinning themes of the organisational strategy.

- Bibliometric analysis of research publications
- Narratives of research
- Data resources generated
- Incubating future leaders in genome research
- Spinout organisations
- Knowledge exchange

Genomic research is at the core of the Wellcome Sanger Institute. Researchers focus on identifying new frontiers of biology to be explored through genome sequences. By being experts in aggregation, analysis and interpretation of genomic data at scale, Wellcome Sanger Institute researchers are able to contribute foundational knowledge for the scientific community.

We regularly monitor various aspects of our scientific outputs and operations, refraining from undertaking exhaustive tracking of all our activities. This approach stems from a strategic allocation of resources to ensure efficiency. Presented below are several key indicators that receive regular monitoring.



Bibliometric Analysis

Metric	9 months to 30 Sep 2023	Year Ended 31 Dec 2022	Year Ended 31 Dec 2021**	5 year average
Field-Weighted Citation Impact*	3.14	4.41	4.05	3.98
Scholarly Output	340	566	632	601
Citations per Publication (mean average #)	2.2	15.4	37.6	56.7
Output in Top 5% Citation Percentiles (field-weighted)	18.5%	21.7%	21.8%	23.9%
Output in Top 1% Citation Percentiles (field-weighted)	5.0%	8.8%	8.9%	9.7%

Source: SciVal data as at 4 October 2023 *Ratio of citations compared to global average in field of genomics. 1= global average.

**Publication data is based on publication date, citations continue to accrue over time, the 2021 comparative has been updated for current citations

Research Outputs

New findings and data are 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 Wellcome Sanger Institute authors. Using a set of five publication and citation metrics (also called bibliometric indicators) to help evaluate published research, we 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 above shows the data for the 5-year average (2018-2022), the data for the two most recent complete data collection periods (the years ended 31 December 2022 and 2021), and the data for 2023 so far.

Genome sequencing at the Wellcome Sanger Institute has generated 3.02 Petabases of sequencing data in the last financial year (2022: 5.5 Petabases), reaching total of 47.4 Petabases by the end of the 2022-23 financial year.

In the last financial year, 2,782 (2022: 1,465 (reclassified)) different species were sequenced for the first time (see graph

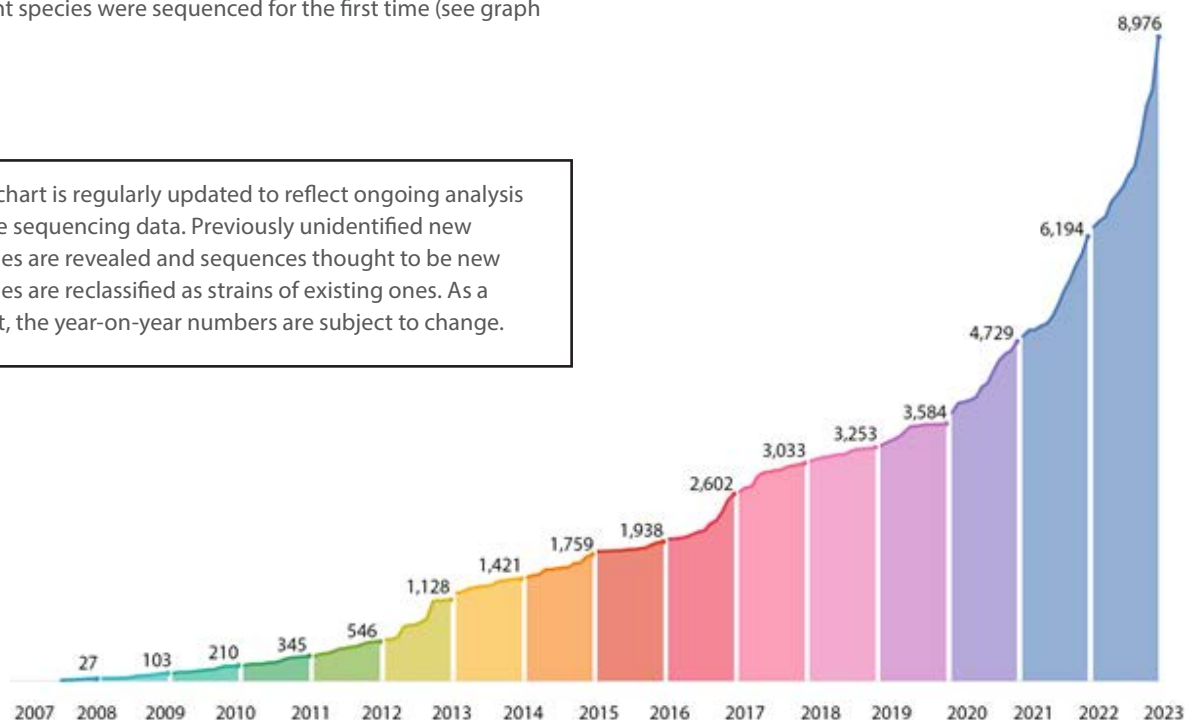
below), reflecting the diversity of the work undertaken at the Sanger Institute, and bringing the cumulative total of different species sequenced to 8,976 by the end of year.

The diversity of genomic data continues to grow, and through the Tree of Life Programme we are rapidly increasing the number of high quality reference genomes of eukaryotic species available to researchers across the world. The Programme has established and refined its high throughput processes to produce 75 genomes a week, celebrating during this financial year the milestone of assembling 1,000 reference genomes and depositing these in the [Genomes on a Tree](#) database to enable quick and open sharing. Each species sequenced also has a [Genome Note](#), a brief scientific article that describes the genome sequence, to announce the availability of the genome and credit those involved in its generation.

Data and Resource Sharing

The research conducted by the Wellcome Sanger Institute produces vast amount of data, which is shared openly, widely and as effectively as possible. Open access to our data and resources has been championed since our inception, with use of Data Access Agreements to safeguard ethical use of the human data.

This chart is regularly updated to reflect ongoing analysis of the sequencing data. Previously unidentified new species are revealed and sequences thought to be new species are reclassified as strains of existing ones. As a result, the year-on-year numbers are subject to change.



Cumulative total of species sequenced, by financial year

Key Bibliometric findings - research outputs, data sharing and collaboration

The Wellcome Sanger Institute's publication volume and citation rates are consistently among the highest in comparable fields, despite our comparatively small faculty size. The metrics reflect the Wellcome Sanger Institute's global influence: research articles are highly cited and frequently referred to in the outputs of research conducted in countries worldwide.

Scholarly output:

Sanger Institute authors have published 566 research articles and reviews in the year ended 31 December 2022 (the last full reference period), including 185 articles where Wellcome Sanger Institute authors are leading the work (as recognised by sole or joint first or last authorship). During the five-year period between 2018 and 2022, 3,006 articles and reviews were published by Sanger Institute authors, including 892 where Sanger authors had a lead role.

Field-Weighted Citation Impact (FWCI):

- Articles and reviews published by the Wellcome Sanger Institute authors are consistently nearly four times more cited than the world average.
- Research articles and reviews published in the past five years (2018-2022) in which Sanger authors are leading the work are 4.65 times more cited than the world average.

Average citations per paper:

- The 3,006 Wellcome Sanger Institute articles and reviews published in 2018-2022 have accumulated 170,483 citations overall, with a mean of 56.7 citations per paper published during this period.
- First and/or last author Sanger papers have received an average of 67.4 citations per paper for papers published between 2018-2022.
- Sanger Institute papers published in 2022 received, on average, 15.4 citations per paper by October 2023.

Outputs in the top 5 per cent of citation percentiles (field-weighted):

- On average, 23.9 per cent of all Wellcome Sanger Institute articles and reviews published between 2018-2022 are among the top 5 per cent of the world's most cited publications. Despite expected fluctuations owing to citations accruing over time, consistently between one in every four or five Sanger publications are among the world's top 5 per cent most cited publications.
- On average, 29.4 per cent of publications published between 2018-2022 in which Sanger authors are leading the research as first and/or last authors, are among the top 5 per cent of the world's most cited publications.
- Of the Sanger research published in 2022, 21.7 per cent were among the world's top 5 per cent most cited. The proportion of publications in 2022 where Sanger authors are leading the research (as first and/or last authors) was 25.9 per cent.

Outputs in the top 1 per cent of citation percentiles (field-weighted):

- 9.7 per cent of Wellcome Sanger Institute articles and reviews published between 2018 and 2022 – nearly one in every ten publications – are among the top 1 per cent of the world's most cited publications.
- The proportion of articles in the top 1 per cent most cited articles increases where the work is led by Sanger researchers, at 13.3 per cent between 2018 and 2022.
- For Sanger papers published in 2022 alone, 8.8 per cent were among the top 1 per cent of the world's most cited publications, and 9.7 per cent of papers where Sanger authors were leading the research as first and/or last authors.

Collaboration:

International collaboration is one of the core strengths of the Wellcome Sanger Institute. With a long tradition of producing research findings as partners in internationally collaborative networks, the proportion of research articles published as a result of international collaboration is consistently high; above 82 per cent of the Wellcome Sanger Institute's publications between 2018-2022. The proportion of publications authored with industry partners between 2018 and 2022 is also high at 17.8 per cent.

The Wellcome Sanger Institute is committed to sharing its data, as well as the resources, protocols, materials and publications it produces. Rapid and open data sharing strategically supports both the GRL and Sanger Institute missions by enabling research and accelerating translation.

The Wellcome Sanger Institute has approved 2,274 Data Access Agreements (DAAs) for human data since 2018. 184 (2022: 206) of these had been granted in 2022-2023 with 27 countries (2022: 28 countries) as seen in the map below. Data requests arrive from all over the world, with the majority from organisations based in the USA and the UK.

Requests for data tend to come mostly from universities and research institutes (combined 82 per cent, a 5 per cent decrease from last year) and the remainder from hospitals and commercial entities.

In developing data release strategies we are mindful of the Sanger Institute core goal of large-scale data generation and the long term sustainability of supporting and updating databases, tools and software. Much of the Wellcome Sanger Institute data is deposited with our strategic partner EMBL-EBI who curate, organise and present data. Since 2014, the Wellcome Sanger Institute has contributed 546 studies and 729 datasets to the EMBL-EBI European Genome-Phenome Archive (EGA). These have been used in 375 publications that have received 21,055 citations combined. The Sanger Institute contribution to the EGA accounts for 8.3 per cent of all studies and 6.9 per cent of all datasets shared on EGA. This equates to over 2 million downloads of Sanger datasets from the EGA. On average 65 million requests are made to EMBL-EBI websites every day.

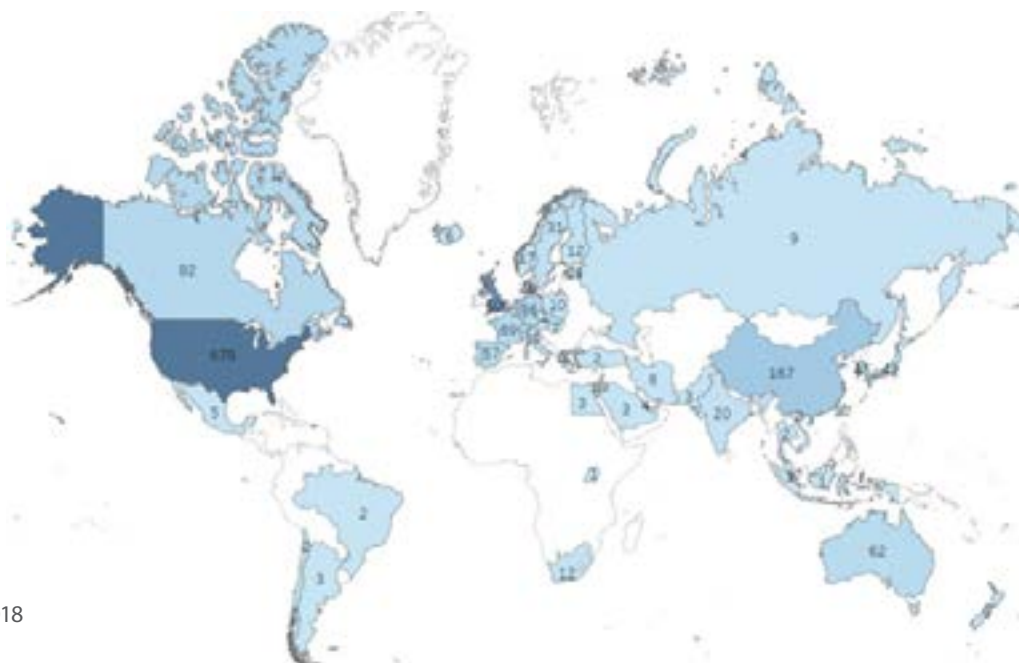
The Wellcome Sanger Institute also creates publicly accessible databases and organised data resources. These include DECIPHER, and COSMIC. DECIPHER, one of the largest databases initiated by the Sanger Institute as one of the earliest efforts to use the human reference genome in clinical practice by combining patients' genetic data with their medical information, incorporates tools designed to aid the interpretation of genomic variants in rare diseases. Over 300 centres across the globe

contribute genomic and patient data into DECIPHER which has over 47,100 (2022: 43,800) open-access patient records. DECIPHER has recently migrated to be hosted by our long-term strategic partner institute EMBL-EBI. COSMIC, the Catalogue of Somatic Mutations in Cancer, is a comprehensive database of cancer mutation data and analytic tools. COSMIC have recorded more than 23 million mutations from 29,000 peer reviewed publications and 42,500 whole genome screen samples. The catalogue grows as it is updated through regular releases and therefore the data is not directly comparable with the previous financial year. The COSMIC has 50,000 academic and commercial registered users with 30,000 users/month visiting the website.

Wellcome Sanger Institute scientists generate a wide range of biological resources to support research and these are all made available 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.

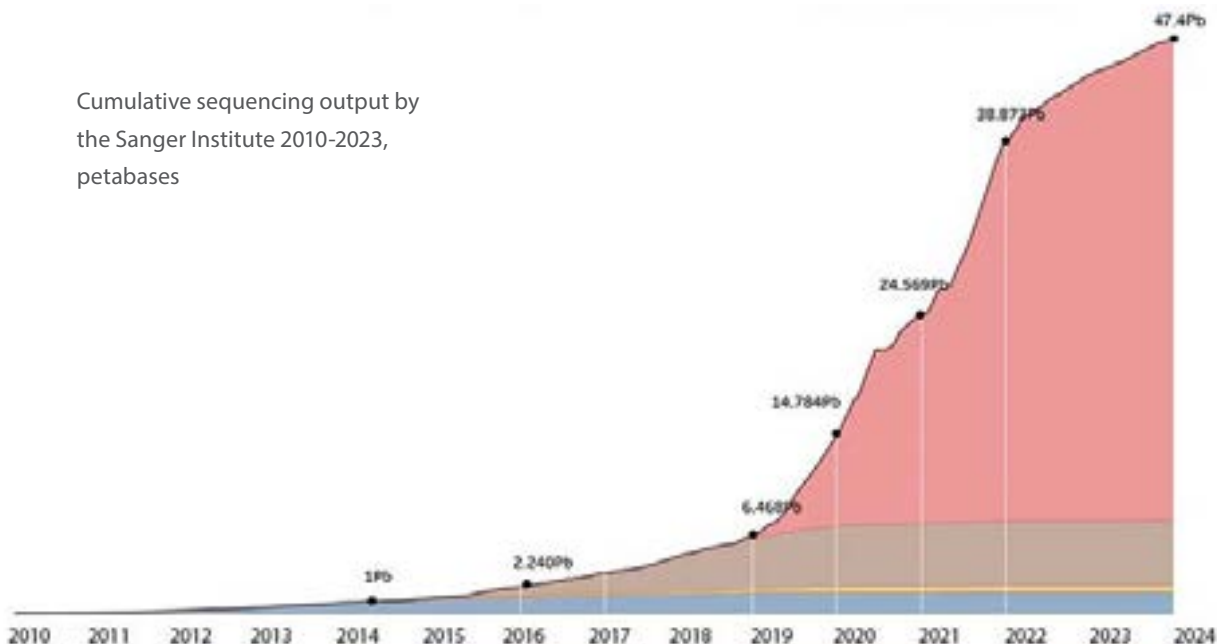
The Cell Model Passports (CMP) resource has information for over 2,000 cancer cell line and organoid models as well as access to genomic and functional datasets including CRISPR and drug sensitivity screens, mutational data and proteomics. The number of organoids created at the Wellcome Sanger Institute as part of the Organoid Derivation Project has reached 275 (2022:230), of which the datasets for 145 have been made available as a resource for the scientific community via CMP. CMP has been accessed by researchers from 126 countries, through >150,000 visits to the website since it was launched in 2019 (up 18.4% in 2023 compared to previous period). In addition, 48 of these organoid models are commercially available as a biological resource to the scientific community. The Genomics of Drug Sensitivity in Cancer, a resource for therapeutic biomarker discovery in cancer cells, has screened over 500 compounds for genomic markers predicting drug response.

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



Data Access Agreements per country since 2018

Cumulative sequencing output by the Sanger Institute 2010-2023, petabytes



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.

Funding

In order to remain a global research leader we aim to, as a minimum, maintain the same level of funding year-on-year, after accounting for inflation. In order to achieve this we aim for at least 20% of our grant funding to be generated from third party or non-core Wellcome awards.

Our grants team work closely with our scientists to identify funding opportunities through charitable foundations, collaborative research institutes and commercial organisations which align with our scientific objectives. We do not undertake any fundraising activities in the form of approaching individuals for donations.

	Year ended 30 September 2023 (£'000)	Year ended 30 September 2022 (£'000)
Wellcome Core Grants	118,850 (76%)	92,464 (73%)
Wellcome Other Grants	3,150 (2%)	3,710 (3%)
Third Party Grants	34,722 (22%)	30,704 (24%)
TOTAL GRANTS	156,722	126,878
Major Contracts	20,667	50,639
Other income	11,642	8,423
TOTAL INCOME	189,031	185,940

Major contracts, such as COVID-19 sequencing, allow us to expand our technological capacity and conduct large scale research, however GRL's mission is to remain a global research leader, and as such there is no formal target in place in respect of commercial arrangements.

At the start of each financial year, we set budgets based on our scientific objectives for the following period. While spend in the year does not provide a good indication of the impact of our science, it does provide some insight into how successful we

have been in conducting our planned research. In the year ended 30 September 2023 we spent 97.2% (2022: 88.1 %) of our core budget for the year. Current year spend was behind budgeted spend primarily due to proactive measures to address inflationary pressures, and savings in utilities utilisation.

Research Training

The Wellcome Sanger Institute provides an exceptional intellectual environment and infrastructure for training and inspiring the next generation of leaders in genomics research. This includes a dedicated Graduate Programme, described below, and over 100 postdoctoral fellows embedded within the scientific programmes and who make significant contributions to the Institute's scientific output. In addition to scientific training, supervision and mentoring, a broad range of training opportunities are offered at the Wellcome Sanger Institute. These include leadership courses, and Start-up School where staff gain entrepreneurship experience through exploring the potential for commercialisation of their scientific ideas. The mix of mandatory and on-demand training includes Good Research Practice training to ensure that the highest standards of scientific integrity and rigour are upheld, and a broad range of technical skills courses, some of which have been developed as part of Technician Commitment to aid professional development of technical staff.

Graduate Programme

The Wellcome Sanger Institute is a University of Cambridge Partner Institute, and all successful Sanger Institute MPhil and PhD students graduate with a degree from the University of Cambridge.

The Graduate Programme funds 12 PhD students per year on our 4-year PhD programme. It also funds two fellowships per year from the University of Cambridge Wellcome PhD Programme for Clinicians, which provides medically qualified individuals with genomics training. There are also a small number of externally-funded students from several other University of Cambridge-based PhD programmes. The one-year MPhil programme funds three MPhil students per year from low- and middle-income countries to enable the students to move on to competitive PhD

programmes including those funded by third parties, 88 (2022: 73) postgraduates were studying at the Wellcome Sanger Institute during the financial year 2022-23, of which 16 were extensions due to the pandemic.

The data from the Wellcome Sanger Institute's PhD and MPhil programmes on the career outcomes indicates that it consistently meets its goal of nurturing the next generation of leaders in genome research. The Graduate Programme has consistently remained highly attractive to prospective students from all over the world, even those who have sought their funding elsewhere, which suggests a continuously high level of interest in Sanger science.

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

ii) Wellcome Connecting Science

Over the past year, we have consolidated our learnings from the pandemic – delivering both in-person and virtual activities, spanning learning, training and engagement, with genomics, for professional and public audiences.

Our Learning and Training programme, under the leadership of a new Associate Director, has refreshed its approach to capacity building and digital learning; seeking to integrate these elements more fully. We have resumed skills and capacity development in relation to genomics, in the Global South; working with regional partners to ensure specific needs and gaps are addressed during in-country training.

Overall we have developed and delivered 15 (2022: 14) fully hybrid (combining in-person and online attendance) research conferences; 22 (2022: 19) virtual) training courses (all in-person on the Wellcome Genome Campus, apart from one virtual event); and 13 (2022: 9) virtual) in-region and in-person global training events for participants in Asia, Africa, and Latin America. We have also developed two new online courses; one aimed at the education sector focussed on teaching genomics; and the second produced in collaboration with the Wellcome Sanger Institute Tree of Life programme, on the use of an online tool for accurate eukaryotic genome assembly. These have been delivered alongside re-runs of older online courses. Collectively, these activities have reached around 20,000 individuals, with a significant proportion accessing online and hybrid (virtual) activities.

In our Engagement and Society work we developed and hosted

a citizens' jury in partnership with Genetic Alliance UK and Involve. The jury consisted of 21 individuals whose lives have been affected by hereditary disease. The citizens' jury considered the question: Are there any circumstances under which a UK Government should consider changing the law to allow intentional genome editing of human embryos for serious genetic conditions? The four-day event was the first time that patients, rather than policymakers or professionals, have been asked about their views on this complex topic. A full report, including their verdict (the jury voted in favour of asking the UK government to consider changing the law to allow genome editing of human embryos) is now available, and we are exploring the most effective channels for sharing this with policymakers.

Both our in-person and virtual offer for young people, schools, and public audiences has continued to grow this year. Working with Wellcome Sanger Institute colleagues, we have reached over 3,000 young people as part of school visits to Campus, or in-school and community activities. Our work in this area is targeted at schools and regions with low social mobility, no history of science engagement, and/or high levels of pupil premium; ensuring that we are engaging with audiences with whom we can have the most impact. Particularly notably, the summer saw the first virtual work experience offer promoted to young people (14-17yrs) across the UK. This saw over 1000 applications, for a structured programme of virtual lab experiences, talks and activities, with researchers and other professionals in the Wellcome Sanger Institute and across the Campus.

iii) Enterprise and Innovation

Genomics Innovation has a holistic approach to support translation of Sanger science into benefit for society. The team works along the whole innovation continuum from developing the entrepreneurial skills of our scientists, to validating technologies arising from our research and seeking commercial partners or investors with the resource and capability to then deliver products and services based on these technologies. We also support internal and external innovators in genomics and biodata by providing co-located workspace on campus in the Biodata Innovation Centre.

The Wellcome Sanger 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.

As at 30 September 2023 GRL held shares in five spin-out companies, held as programme related investments. Three more companies have been spun out during the year, based on Wellcome Sanger Institute technologies. Two new entities and Mosaic Therapeutics, established in 2021 as a subsidiary of GRL. GRL entered into the following equity bearing agreements:

- Mosaic Therapeutics, October 2022. The company leverages the Wellcome Sanger Institute'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.
- Quotient Therapeutics, February 2023. The company's platform is based on high fidelity sequencing technology

developed in the Cancer and Aging Somatic Mutations group, and it will be applied to the discovery of new therapeutic approaches for chronic disease.

- Enocell, July 2023. The company's platform is based on single cell genomics technology developed in the Cellular Genetic group that will be applied to the discovery of new therapeutic targets.

GRL do not set specific performance objectives for their investments, which are held to maximise opportunities for scientific growth, rather than financial gain.

The exceptional number of Wellcome Sanger Institute technologies leading to the formation of therapeutic companies this year is an indicator of 1- the quality and relevance of Sanger's "Science at Scale" approach and 2- industry and investors readiness to recognise the power of genomics to fuel the discovery of new drugs and diagnostics. However, we recognise these numbers are exceptional and unlikely to become the yearly average. Although emerging within a short time frame the opportunities above were developed over several years.

Interest remains steady for Genome and BioData companies seeking to co-locate on Campus and be part of our growing community of innovative businesses in this space. At September 2023 we are operating at 95% capacity in our incubation centre, with a cohort of 11 organisations from the private and public sector. Our tenants, from Campus spin-out companies, start-up companies, through Genomics England Limited activities, to global organisations, represent diverse aspects of the genomics and biodata value chain. Feedback continues to be exceptionally positive, however we are aware that companies continue to review their working arrangements as a result of COVID-19 with some seeking a reduction in space. Over this year almost all of the enquiries we have received are from companies seeking both office and laboratory space. At the current time we are unable to offer laboratory space to third party organisations, limiting the potential for continuing to diversify the community.

We have continued our focus on building a sense of community within the Biodata Innovation Centre and stimulating engagement with the wider Campus. These initiatives are being spearheaded by our new Client Relationship Manager and our Programme Manager for Entrepreneurship and Events and we are increasing our focus on facilitating interactions focused on science. Our efforts to inspire entrepreneurship within the Wellcome Sanger Institute and across Campus continue to build momentum through our Startup School for Genomics and Biodata. Our four-month virtual but highly interactive programme enables earlier career scientists to develop both entrepreneurial skills and 12 new ideas with the support of genomics and biodata entrepreneur role models and guided by expert mentors. This year a third cohort of 24 participants from across both Campus research institutes completed the programme. Some programme alumni from across all cohorts continue to develop their own genomics and biodata opportunities, whilst a number of others are now exploring entrepreneurial career pathways within industry or start-up companies.

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

The Board of Trustees 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 24. 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. In doing so they consider this in the context of Wellcome and GRL's long term strategy.

During the year, Board members have participated in many of the Charitable Company's decision making sub-committees, including the Translation Committee, which oversaw three new investments in the year, and the Audit and Risk Committee (page 25).

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.

The Board continues to receive regular updates on our Culture Development Programme, including any key milestones delivered or progress made, and are actively engaged to provide input, comment or feedback. A member of the Board, Dame Cilla Snowball, acts as EDI and 'Speak Up' (our whistleblowing tool) Champion.

GRL's Employee Partnership, comprised of elected representatives, the 'Your Ideas' portal and the Great Place to Work survey are some 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 opened a brand new purpose built logistics hub, introduced free sanitary wear across campus toilet facilities and added new meeting pods into shared seating areas.

Refer to People Development and Engagement (page 27) for further details of how we have engaged with our employees during the year, and Health and Safety (page 25) for more about actions taken to support employees both based at home or on Campus.

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, which ensures the latest technology is available to support and enable our scientific mission.

Procurement and supply chain have been working closely with suppliers during the year, with the development of a Supplier Sustainability Questionnaire, which emphasises the desire for ongoing collaboration with our suppliers as we moved forward on our sustainability journeys together.

We agree payment terms with suppliers in advance that protect the needs of the supplier and the Charitable Company.

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 interim Director, Paul Schreier. 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
- Liaising with local residents on parking and transport issues

Refer to the Environmental Statement on page 26 for further details.

Wellcome Connecting Science works with both professional and public communities, with the aim of enabling everyone on this continuum to benefit from genomic science. The Buzz Map project, is a collaboration with five nature sites across East Anglia, connecting with communities to map flying insect populations in their local area using cutting-edge DNA science. As part of this initiative, each of the five sites will be a part of the national BIOSCAN research project, led by the Wellcome Sanger Institute. The BIOSCAN project aims to study the genetic diversity of 1,000,000 flying insects from all across the UK, through DNA barcoding. The sites include Suffolk Wildlife Trust Carlton Marshes, RSPB Rainham Marshes, and London Wildlife Trust Walthamstow Wetlands. All are in areas of low, or no history, of science engagement, and will become community hubs for engagement, with activities for local residents based around this biodiversity research.

A historical research project, commissioned by Wellcome Connecting Science, to investigate the history of Hinxton Hall (our conference venue) and the source of wealth that enabled its creation, has revealed strong links to the East India Company. The coming year will see us develop new communication outputs to share this information with the local community and wider, including an expansion of the Hall exhibition, a new short film, and a public event.

Maintaining a reputation for high standards of business conduct

The Wellcome 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 second year of the 2021-2026 quinquennium award from Wellcome which GRL can draw down as required to meet its objectives as set out in the 2021-2026 scientific plan.

The net surplus for the year, after other recognised gains of £68.3 million (2022: £149.9 million gains) was £75.0 million (2022: £153.4 million surplus). Other recognised gains have arisen due to the accounting requirements of the defined benefit pension scheme.

Income for the year totalled £189.0 million (2022: £185.9 million) of which 65% (2022: 52%) was provided by Wellcome. The Charitable Company has seen an increase in grant funded expenditure, in part due to inflationary pressures, particularly on salaries and consumables; and also due to an increase in capital expenditure following delays in the prior year due to global supply chain issues. As a result, income from charitable activities has increased from £126.9 million to £156.8 million. Other trading income has fallen to £32.2 million (2022: £58.4 million), primarily due to a decrease in income associated with COVID sequencing on behalf of the UK government, in line with the decline in the virus and associated testing. There was no investment income in the year (2022: £0.6 million, following the sale of shares of a programme related investment).

Expenditure in furtherance of its activities totalled £184.0 million (2022: £183.2 million). Net income for the year was £6.8 million (2022: £3.5 million net income), arising as a result of profits earned on commercial activities resulting in unrestricted net income of £5.0 million (2022: £13.4 million), and net income on restricted funds of £1.8 million (2022: £9.9 million net expenditure). The net income arose as a result of grant income on capital expenditure for which depreciation will be recognised in future years.

As at 30 September 2023 the Charitable Company had a pension surplus of £82.2 million (2022 £13.7 million) representing the funding position of the scheme, recognised in the financial statements as a 'pension asset' on an FRS 102 basis. This position represents the difference between an assessment of the liabilities of the pension funds and the current value of their underlying assets. The fair value of scheme assets is in excess of the scheme

liabilities. The amount of the surplus or 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 2023 there has been a 0.65% 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 2021. This valuation showed that the plan had a surplus of £42.9 million.

The scheme was closed to further accrual as of October 2021. 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.

As at 30 September 2023 there were £16.2 million capital commitments contracted but not accrued, including £0.1 million relating to improvement projects in the laboratories and data centre, and £16.1 million in relating to the construction of a new building on Campus (2022: £28.1 million, including £1.4 million relating to conversion of the former Research Support Facility into a new logistics Hub and lab space, and £26.5 million in relating to the construction of a new building on Campus). The Charitable Company has entered into an agreement with the tenant to cover the full cost of construction. The building is expected to be completed in early 2024. The commitment represents the proportion of the development work that is yet to be carried out.

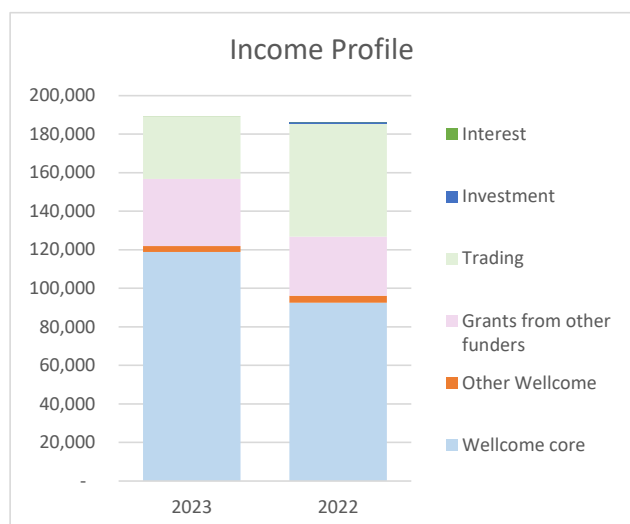
The Charitable Company has committed to supporting a trading subsidiary, Genome Research Trading Limited ('GRTL'), by provision of a loan, up to the value of £0.3 million, in order to provide working capital through the period of Campus closure as a result of the COVID-19 pandemic and until the Conference Centre can make sufficient profits. This is expected to be in the year ended 30 September 2024. As at 30 September 2023, £0.1 million had been paid to GRTL.

Post balance sheet events

There were no post balance sheet events requiring disclosure in or adjustment to the financial statements at the date of signing.

Reserves policy

Total net assets at the end of the year were £271.6 million (2022: £196.5 million), after accounting for the pension surplus of £82.2 million (2022: £13.7 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 asset) at the



end of the year were £189.4 million (2022: £182.8 million).

The restricted income funds of £152.0 million (2022: £150.5 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 restricted 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 (2022: £0.7 million) represents funds for activities specified by the donor. The movement on reserves is shown in note 22 to the financial statements.

Unrestricted investment funds of £7.5 million (2022: £6.3 million) relate to gains on unquoted investments less amounts owing to staff in relation to these gains (see note 16). Investments are measured at fair value, where possible, and as such are subject to variability.

The unrestricted income funds of £29.2 million (2022: £25.3 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.

The Charitable Company receives Core funding from Wellcome which is sufficient to finance its general activities and meet its obligations as they fall due during a five year period. The funding structure is reviewed every five years. The Charitable Company has discretion to manage its activities and associated finances to respond to an unforeseen shortfall of funding, such as extraordinary inflation or other factors. The Charitable Company aims to maintain sufficient additional unrestricted reserves, equivalent to 20% of the risk in a single year. Surpluses in excess of this level may be used for organisational objectives. The process for approval of spend is governed by the annual budget setting process, including approval by the Board.

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 contribution scheme into which both employee and employer contributions are paid. GRL's defined benefit scheme was closed to further accrual as of October 2021. 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 (see note 5). 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 £271.6 million (2022: £196.5 million). The Charitable Company has a pension surplus of £82.2 million (2022: £13.7 million). The latest full funding valuation of the pension scheme indicated that the contributions GRL have made to date are sufficient to meet the requirements of the scheme. The Charitable Company had net current assets at the end of the year of £40.7 million (2022: £35.6 million).

The year ended 30 September 2023 was the second year of the 2021-26 quinquennium award from the Wellcome Trust, and an amount of £560.0 million has been awarded for the five year period, representing the budgeted cost of the scientific plan. Further funding has been provided for power inflation, specific projects and underspends from the previous quinquennium, primarily due to COVID, bringing the total available core funds to £607.5 million.

The extraordinary inflationary pressures arising primarily from the war in Ukraine, and other external factors such as Brexit and the COVID-19 pandemic, since the date the award value was approved, have created a challenging environment in which to deliver the scientific plan within the awarded level of funding. Management have sufficient discretion over the spend to ensure expenditure remains within budget over the five year period without further support, and have identified cost saving opportunities to achieve this, including delaying construction projects; however it is still possible that budget savings would need to be achieved through the reduction of scientific activities, if insufficient savings are made elsewhere.

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, the Trustees take 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 2023-24 budget and strategic plan for 2021-2026, income under trading contracts and the 5 year award from Wellcome for 2021-2026, the Trustees are satisfied that it is appropriate to adopt the going concern basis in preparing the financial statements of GRL.

Plans for future periods

GRL will continue its roadmap to deliver cutting edge genomic science through 2021-2026, as outlined in the Sanger Institute quinquennial plan (October 2021).

The Wellcome 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.

A new scientific programme, Generative and Synthetic Genomics, will combine large-scale data generation and artificial intelligence to lay the foundations for predictive and programmable molecular biology and the routine synthesis and engineering of genomes. Our goal is to generate the data models that will allow biology to be engineered as easily as software, electronics and cars and to greatly accelerate the understanding of genomes and the development of therapeutics.

The Wellcome Sanger Institute will continue to operate as a world-leader in genomic data generation, data interpretation and data analysis. We will continue collaborating, leading, convening and engaging globally, supporting our Faculty to drive the direction of genomic science discoveries, and focusing on delivery of science not easily possible elsewhere. We will continue to support our staff as we navigate the hybrid world, ensuring all of our people are supported, empowered, appreciated and acknowledged as we continue to collectively tackle some of the biggest challenges in life sciences.

The Wellcome Sanger Institute 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. Our discovery science mission remains unchanged following the Director transition in 2023 and the expansion of the wider Wellcome Genome Campus.

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.

We recently undertook an extensive review of our work in relation to diversity and inclusion, with a focus on race and ethnicity. Following a research project we commissioned on the experiences of different groups at research conferences, we are amending several aspects of our learning offer – including how we communicate about financial support, and the expectations of our code of conduct. We are planning to assess the impact of these actions in 12 months time. We are also ensuring that diverse community perspectives are reflected in our work, whether relating to our training activities in the Global South, or from public audiences in the UK. For example, a new Engagement and

Society project Only Human, is exploring attitudes to science and genomics within British Pakistani and British African and Caribbean communities, and what are effective conversation starters with these groups. This will ultimately impact research participation, trust, and DNA data donation. Working closely with the Sanger Institute, we are planning a fully refreshed public and community programme in the coming year, to complement our established schools programme. As part of this, we are working with Wellcome Collection on a new exhibition by artists Larry Achiampong and David Blandy exploring genetics, race, and identity in the 21st century.

Enterprise and Innovation are implementing a new innovation strategy for the Wellcome Sanger institute, which started by creating Genomics Innovation, a team dedicated to developing technologies and people in order to deliver on GRL's mission to apply our research for public benefit. The team is now positioned within the Director's office to align with the strategic vision of the institute.

In 2023/2024 we will pursue implementation of our strategy with a focus on:

- R&D support – leveraging resource and networks to develop early stage opportunity up to a point where an external partner such as an accelerator program, investor, or licensee can be sought
- Training – in entrepreneurial skills and how to translate science, with a focus on early career scientists

Culture – to motivate and inspire scientists to engage with innovation

- Communication – on translation support at Sanger and the opportunity it represents for researchers and commercial partners
- Visibility – developing and sharing best practice for translation of genomic and biodata, establishing Genomics Innovation as thought leaders in the field
- Ecosystem - building networks and leveraging strategically the genomics in the UK and globally

The Campus development offers opportunity to implement our strategy within a significantly expanded local ecosystem and to deliver on our vision of becoming a centre of excellence for translation of genomic research and biodata. As the Campus expansion progresses, management of the whole Campus will transfer to a new Wellcome owned entity. This provides us with an opportunity to focus our resources on delivering our science strategy; however we will need to work closely with Wellcome and the new management team to ensure that our needs continue to be met.

In the context of increased appetite from scientists, at all stages of their career, to translate their research and the readiness of investors and industry to adopt genomics technologies, the limited size and resource of Genomics Innovation remains - and will increasingly be - a challenge. Without increased resource and the capacity to develop new ideas and technology we risk losing opportunities to maximise the positive impact our science could have on society and not fulfil our potential to be a beacon for genomics science and innovation.

Strategic Risks

Risk	Nature of risk	Management of risk
Cyber and Data Security	<p>The threat landscape around Cyber security, including Artificial Intelligence, 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, our systems and/or our data.</p> <p>Cutting edge science requires cutting edge scientific computing capabilities. We are mindful of the design of our data storage capabilities and the risk that would be posed if we were unable to adopt new capabilities.</p>	<p>To manage this risk we rely heavily on the skills and experience of our in-house IT department supported by external experts in the field who provide tools and testing capabilities to constantly evolve our defences.</p> <p>Staff awareness and training is a prime focus and we have improved resilience through clarifying responsibilities, increasing controls and running exercises at all levels to test our responses to an event.</p> <p>A long term strategy is now being implemented to provide a more flexible IT environment for the future and as part of this we make continual improvements to the Data Centre resilience.</p>
Economic Pressures	<p>GRL has a fixed cost core funding award therefore the impact of global inflationary pressures has been to decrease its real purchasing power.. Similarly our third party grant award purchasing power has been eroded. There is a risk that these pressures affect our scientific activities potentially delaying capital expenditure, operational and/ or scientific projects and lead to changes in priorities.</p>	<p>We have deferred non-critical recruitment to slow down/ defer avoidable new cost. We use a range of measures to manage this risk including fixed pricing on power contracts, long term supply arrangements supply chain resilience and contracts and inventory holdings.</p> <p>We continue to forecast our financial position regularly and make adjustments to our plans to accommodate changes. We continue to work with all of our funders including Wellcome as our core funder to manage this situation but also are taking steps to improve our financial resilience by investing in efficiency and standardisation.</p>
People and Culture including recruitment, retention and flexible work environment	<p>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 recruitment environment has become more challenging across all functional areas as a result of Brexit, commercial market demand for certain skill sets and the inflationary economic environment.</p> <p>The absence of the necessary supportive, inclusive and collaborative culture; inappropriate organisational structures including our faculty model or PhD programme; poor communication; or a deficiency in reward structure could all negatively impact recruitment, retention and development and the achievement of our objectives.</p>	<p>There is a strong focus on Culture within the organisation and work is ongoing to maintain and enhance the appropriate norms. This is achieved through a broad continually evolving range of communication and feedback mechanisms; reinforced through integration with employee processes, such as recruitment, promotion and performance review; and reviewed as part of our normal internal audit procedures. We have continued to evolve our working practices to create the flexibility often expected by staff with the collaborative needs of science and campus.</p> <p>We offer extensive staff support, through a comprehensive wellbeing programme, dedicated networks and ongoing monitoring of data in order to be inclusive to all and to promote a diverse staff population. We have increased our staff VISA and residency application support and continue to monitor emerging requirements as regulations change.</p>
Implementation of Innovative Technologies	<p>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 degrade our reputation as a world leading Research Institute, and subsequently have a negative impact on our appeal to key scientists, funders and collaborators of all types.</p>	<p>Continue to scan the markets for new technologies serving our technology requirements, 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.</p> <p>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.</p>

Risk	Nature of risk	Management of risk
<p>Campus Development Implementation of Innovative Technologies</p>	<p>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 are creating an expanded Campus, building on land adjacent to the existing Campus. Campus development and management oversight will transition to new governance arrangements.</p> <p>There is a risk to GRL that the campus vision is not aligned to the creation of such a connected ecosystem, limiting collaborative information flows both into and out of the institute and thus putting the vision at risk</p>	<p>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. Wellcome have articulated support for academic discovery research on the new Campus. GRL has full engagement and information sharing with the transition team working on the governance of the campus, to both inform the benefits of such a vision and help shape it.</p> <p>The new governance body will review progress in attracting organisations to the expanded Campus and evaluate this against its mission, to ensure appropriate measures are taken to attract relevant organisations.</p>
<p>Sequencing for Large Scale Datasets</p>	<p>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.</p> <p>The scale of our data generation and surveillance work for other parties has decreased post pandemic and there is a risk that GRL may not be involved in sequencing large scale datasets on future major projects of a similar or increased scale. This could have a negative impact on our position as a global leader in genomic data. This could also result in a loss of economic benefits and ability to process at scale.</p>	<p>GRL promotes its capability, capacity and appetite to be involved with and deliver large scale sequencing and other data generation projects. The organisation has both formal and informal contact with multiple external stakeholders from pharma and biotech to funders including Wellcome and government departments.</p> <p>GRL continues to develop technologies and capabilities in this area and by initiating, leading and participating in major research projects cements its strong reputation.</p>
<p>Reputational and Regulatory</p>	<p>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.</p>	<p>GRL is transparent and open in its approach to reporting to regulators. All staff receive training in appropriate behaviour, including conflicts of interest and good research practice. GRL continues to proactively engage with government, umbrella organisations and health professionals. GRL influences the positive perception of genomics through publicising scientific breakthroughs in multiple forums including those accessible to the general public such as the press. Public audiences are also engaged through the Connecting Science division.</p> <p>GRL continues to invest and implement best in class data management systems that protect personal and individual data.</p>

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 governance, risk management and control environment for 2022/23 is limited. Overall Internal Audit has been able to observe improvements in some areas during the financial year, particularly when considering the number of critical control observations raised compared from the previous financial years. However, the organisations' ability to proactively identify and mitigate key risks holistically and demonstrate that it has done so within the boundaries of the Board's agreed risk appetite remain key challenges for GRL.

The major strategic risks currently facing GRL are detailed in the table on pages 22 and 23, including the impact of inflation on our objectives.

Credit risk is minimised by careful management of amounts due from external third parties. Wellcome has demonstrated its commitment to the support the Charitable Company financially through the award of a five year grant through to September 2026.

Structure, governance and management

GRL is a registered company, a registered charity and is governed by its memorandum and articles of association (refer to page 55 for reference and administrative details, including charity registration number and company corporation information). 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.

As at 30 September 2023, Genome Research Trading Limited, and GRL Construction Limited were 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. Mosaic Therapeutics Limited successfully completed series A funding in October 2022 and is no longer a subsidiary of 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 and ongoing training 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 2023, the GRL Board met on four occasions.

A list of Directors, including appointments and resignations, is shown on page 55.

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

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

During the year, as part of the internal Governance Structure Review, the GRL Executive Board merged with the Board of Management to form the Sanger Leadership Team, bringing together the management and scientific leadership of the organisation for holistic decision making. The Sanger Leadership Team is chaired by the Sanger Director who has delegated responsibility from the GRL Board to oversee the implementation of GRL's strategy. The Sanger Leadership Team includes representatives from each of the main themes of GRL's strategy.

Underneath the Sanger Leadership Team, the management of each part of the strategy is delegated as follows:

- Scientific Operational and Platforms Committee, chaired by the Scientific Operations Director of the Institute, is responsible for the delivery of our scientific operations.
- Operations Board, chaired by the Chief Operating Officer is responsible for the delivery of operational 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 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 24);
- 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)
- Daniel Mahony
- Nicole Mather.

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 December Board 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.

Nationally, work-related ill health from musculoskeletal disorders and stress, anxiety and depression are the two largest causes of lost time in the workforce. Whilst we experience much less than the national rates for both these categories, we are keen to reduce our rates as low as possible. We have continued to promote and train our ergonomic champions in different areas as well as

Campus Environmental Sustainability Strategy - Workstreams			
Workstream	Target	Workstream	Target
Biodiversity	Increase the Campus biodiversity net gain by 25%	Lab Practices	Reduce relative environmental impact of lab practices
Carbon & Offsetting	Net Carbon Zero by 2030	Procurement & Supply Chain	Sustainability criteria used for high-value/volume suppliers/products
Culture Change	Increase environmental awareness to 90%	Travel	Reduce carbon emissions from employee commuting and business travel by 50%
Construction	Embed sustainable methods in new construction and refurbishment projects	Waste & Recycling	Reduce relative municipal waste consumption by 50% and achieve 65% recycling rate
Energy	Reduce relative energy consumption by 20%	Water & Effluent	Reduce relative water use by 25%
Food	Reduce environmental impact of food by 25%	Work Practices	Reduce environmental impact through work practices by 50%

produce an organisational stress risk assessment, a stated focal point of the HSE. This latter project led to the development of a resilience review programme to support teams in understanding their work-related stressors and encourage team actions to reduce these.

We have enhanced our internal assurance programme of laboratories, plant and communal spaces, as well as reviewing the health and safety of our contractor organisations, with actions that can be tracked. Senior management receives a monthly summary of incidents, along with progress on the assurance programme and outstanding actions. New in 2023 has been reviews with heads of science faculty, in terms of compliance with the assurance programme actions, risk assessment reviews and incident and hazard reporting, highlighting the positive safety culture within their area, as well as focal points for improvements. This project has been well received and will continue on a quarterly basis.

We have received only one visit from a regulator during the year. We hosted a planned HSE inspection of our biological containment level 3 (CL3) laboratories. The inspectors did not raise any major concerns, sharing some verbal warnings, items they they'd like to see resolved before their next inspection and providing some verbal advice for improvement of our processes. The inspectors commented on the positive engagement of the Estates and Facilities team, the level of knowledge of the CL3 laboratory manager as well as that of the Biological Safety Officer orchestrating the visit.

Environmental Statement

Following previous audit recommendations, our environmental (14001) and energy (50001) management systems have been integrated and successfully completed surveillance audits. The IMS has demonstrated that it is designed to support the strategic direction and deliver the intended results. The management system is the foundation to our commitment to achieve Net Zero by 2030, therefore the sustainability targets and action plans have been adopted into the IMS.

Implementation of our Energy & Decarbonisation strategy has started; progressing interventions and actions that can be undertaken as part of business as usual with low levels of funding. Larger initiatives which are likely to significantly reduce our associated emissions are awaiting significant investment and funding approval.

Within the Campus Environmental Sustainability Strategy, individual strategies for the twelve supporting work streams are in progress, with a number of initiatives implemented. Working groups still continue to provide a channel for staff engagement with members creating a great network of Sustainability Champions across our Campus. This year saw the successful launch of our first Sustainability Week; a week of engagement events showcasing the strategy and targets, our achievements so far and our plans for the future.

To achieve our overarching aim of NetZero by 2030, we have a number of supporting targets, as shown in the table above. Initiatives have been instigated against each of these workstreams as the first step towards this goal, including gathering the base line data required to report on progress.

We continue to run our Sustainability Stars recognition programme which awards individuals and teams who are championing sustainable practices and changes in the workplace.

Driven by our lab practices working group, we are piloting engagement with the Laboratory Efficiency Assessment Framework (LEAF) to integrate more sustainable practices into our labs with the aim of all labs on Campus achieving Bronze.

Streamlined Energy and Carbon Reporting

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

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.

Energy efficient actions

Emissions have reduced significantly in the year as a result of a reduction in power and gas consumption associated with the operating the Research Science Facility, which has now closed, and we continue to see a significant reduction in Data Centre consumption, due to decommissioning of legacy systems and procurement of energy efficient equipment.

As part of the energy reduction focus on Campus, as outlined by the Director on page 5, a number of lifecycle projects have taken place which include upgrades to lighting on the Campus plaza, installation of heat pumps, and heating and ventilation replacements with more efficient technology. Maintenance teams continue to optimise plant efficiencies to reduce energy demand.

Staff awareness and engagement around energy efficiency continues to increase and a number of further conservation measures have been identified to support energy and carbon reduction targets.

Employee Engagement Statement

Refer to the Section 172 Statement on page 17 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.

Supporting our staff

The last year has seen significant change within the Institute, most notably with the successful appointment of a new Director and the commencement of Campus expansion, but also as the workplace embeds hybrid working, which accommodates a blend of home working alongside attending Campus.

The evolution of hybrid has been mostly positively received, in part as it helps enable better work/life balance, but it does bring challenges. Maintaining the high levels of community and collaboration, so fundamental to our Campus, has been impacted and the reduction in frequency of communities being together in person affects engagement and wellbeing. Societal impacts, such as climate change, war within Europe and the sustained high cost of living will no doubt have contributed to pressures felt by staff.

We continue to invest in wellbeing services and have renewed our ongoing relationship with our on-site Occupational Health provider, after a robust tendering process. Our portfolio of health and wellbeing support remains key to our people proposition.

We have a broad range of support available to staff, both through established routes such as Human Resources or Employee Partners (our elected Employee Representative community), but also through groups like our Mental Health First Aiders, Parents & Carers and Lesbian, Gay, Bisexual, Transgender, Queer/ Questioning (LGBTQ+) networks. We seek to refresh and enhance

UK Greenhouse gas emissions and energy use data for the period 1 October to 30 September		
	2023	2022
Energy Consumption used to calculate emissions [kWh]:	34,193,013	28,651,680
Scope 1 emissions [tCO₂e]		
Total Scope 1	2,501	2,267
Gas consumption	1,665	1,148
On-site generation [CCHP]	828	1,117
Owned transport and LV Generators	2	2
Generation	6	-
Biodiesel—ground vehicles	-	0.01
Scope 2 emissions [tCO₂e]		
Total Scope 2	4,246	3,205
Purchased electricity	4,246	3,205
Scope 3 emissions [tCO₂e]		
Total Scope 3	379	302
Electricity transmission and distribution	367	293
Business travel in employee owned vehicles	12	9
Total gross emissions [tCO₂e]	7,126	5,775
Intensity ratio [tCO₂e/floor area m²]	0.078	0.064

our 'Speak Up' independent staff reporting phone service early in 2024 as part of our wider safeguarding commitment.

We continue to grow and develop our networks across Campus, which provide specific community support, such as peer-to-peer mentoring, targeted workshops and talks. This year, we launched a 'Man Club' network across Campus, that seeks to connect men and encourage more dialogue and conversation. Suppressing emotions can have a negative impact on mental health and may stop some men from talking or seeing a healthcare professional. We know that bottling up is not the best way to deal with things and we want to help men to open up, by providing a safe space for them to do so. Led by a staff volunteer and supported by a mental health first aid volunteer, they meet fortnightly.

Developing greater staff development opportunities

Our people strategy is evolving, following the introduction of a new Human Resources system, that brings core staff services and



The 12 themes of the Campus Sustainability Strategy

data together under one platform. Past employee surveys have highlighted that we can do more to support staff with their career, and we are moving towards a Talent Acquisition approach to manage resourcing in future.

Talent Acquisition focuses on long-term planning of future staffing rather than short-term demand. It's a strategic process aimed at attracting and then retaining highly qualified employees. We have always invested significantly in growing our own talent, through schemes such as Apprentice and Management Trainee providing many successful career routes into key positions. However, we believe we can develop our position further, so that internal appointments, especially in senior positions, are a more frequent outcome.

In order to achieve this, we are developing more robust people processes, including:

Succession & High Potential Planning - We aim to develop a review process as part of the annual performance review, to identify pools of staff that could be considered for progression appointments. Managers are encouraged to undertake career conversations as part of the annual performance process and identify high potential within their teams who could be considered for progression appointments. Identified communities will be prioritised into our development programmes and we will work to ensure it is representative of the diverse workforce that we seek to maintain and grow.

Recruitment - We seek to better promote internal opportunities and have recently refreshed our jobs hub to profile internal opportunities. Revisions to our recruitment process will ensure that internal options are more consciously positioned when a manager seeks to recruit. In addition, we have revised our marketing and advertising strategy, to fully utilise social media channels, which has become a primary sourcing route for talent. We already have built a successful employee referral programme, with around 10% of all new hire appointments coming from recommendations from our staff network - in addition, we seek to develop our alumni network and tap into quality candidates identified from past recruitment processes.

Work developing a Career Framework will complete at the end of 2023, providing both direct and indirect career path information for staff (direct being within a given job family and indirect being within another). This tool seeks to equip staff (and managers) to own career development and navigate the broad range of career opportunities we offer. It will work alongside our behavioural competency framework, to provide a more holistic view of what is required to succeed at any given role across the Institute.

Maintaining and developing an inclusive Institute

Our approach to Equality, Diversity and Inclusion (EDI) remains robust, with a broadening lens focused to develop and maintain a fully inclusive environment at the Institute.

We have submitted our first Stonewall Workplace Equality Index submission (ranking 136 out of the 268 participants) and have launched a 'Sunflower' lanyard scheme alongside training provision for our service providers, to help those in the workplace with hidden disabilities. We have run awareness

sessions alongside guidance and support for domestic abuse and have evolved our family friendly policies in line with recommendations from engagement with the Working Families organisation. Our focus on supporting neurodiversity continues with the launch of an ability working group.

During the year, we completed our reverse mentoring pilot programme and have since launched further programmes that broaden its reach. This initiative has seen Black, Asian and Minority Ethnic staff and students from across the Institute working with our leaders, to share their different lived and professional experiences.

We have undertaken a second intake of our Post-Doctoral Fellowship aimed at people from black heritage backgrounds - a cohort that is significantly under-represented across academia. This is designed to support the training and career development of black talent to catalyse and effect change along the pipeline. This expansion has been achieved with support from external funders.

Our Janet Thornton Fellowship (aimed at people returning to science) continues to grow and is in its eighth year: <https://www.sanger.ac.uk/about/equality-in-science/janet-thornton-fellowship/>

We continue to track and report our position on Gender pay. In 2022 (the most recent reporting reference date), GRL had a median gender pay gap of 7.15% (2021: 7.8%) and mean gender pay gap of 11.06% (2021: 13.4%). We maintain a strategy to reduce the gap, including completing regular salary benchmarking, which has seen larger salary increases in job families with higher proportions of women. The full gender pay report can be found on our [website](#). Data for 2023 will be published in mid 2024.

Our [equal opportunities policy](#) mandates that the Institute does not discriminate against any job applicant or employee on the grounds of age, disability (including individuals who become disabled while in the Charitable Company's employment), 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 are continually reviewing how we can further establish ourselves as a fully inclusive employer and in acknowledging our efforts and achievements made to date, we recognise that these efforts can expand further.

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



Paul Schreier,
Chair of the Board of Directors,
11 December 2023



Statement of Directors' responsibilities

Barbora Pardubska and Tristram Bellerby setting up DNA sequencing machines in sequencing centre in the Bridget Ogilvie Building. Image Credit: Greg Moss / Wellcome Sanger Institute

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.

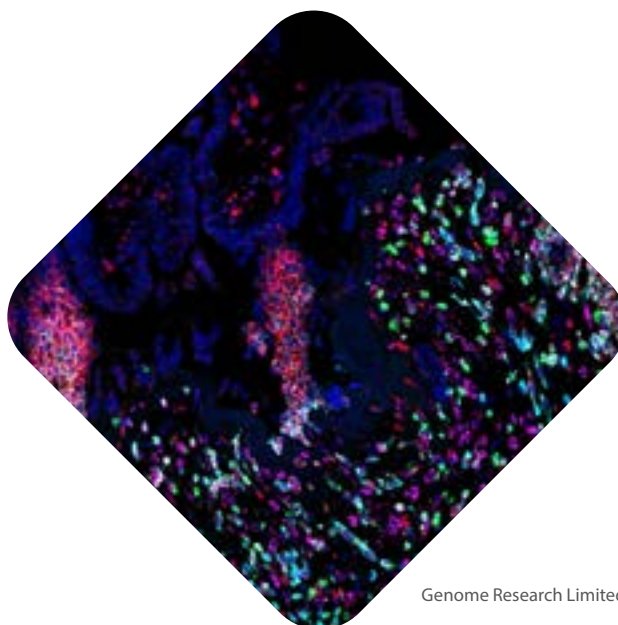
Disclosure of information to auditor

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.



Report on the audit of the financial statements



The Tree of Life's Max Brown studies the flora of the Campus Wetlands Nature Reserve. Image credit: Luke Lythgoe / Wellcome Sanger Institute

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 2023 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 (incorporating an income and expenditure account);
- the balance sheet; and
- the related notes 1 to 24

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 FRC'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 relating to Project Heron.
 - For third party grant income, income entitlement is dependent on the grant agreement terms and conditions. Further, grant income is recognised based on the expenses incurred in relation to the grant project. 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 gained an understanding of the controls in place governing the recognition of grant income under these contracts and obtained evidence of control implementation. We have then tested a sample of new grant agreements to contract documents, trace the expenses to invoices, and verify if the grant recognition is in line with the expenses incurred and if expenses are appropriately approved, 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 the income to contract documents, invoices, and cash receipts, as well as reviewing board and committee minutes. For exit costs in relation to

the contract, we assess if the recognition of income in relation to exit costs are in line with revenue recognition criteria.

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 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 trustees' report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the charitable company and its environment obtained in the course of the audit, we have not identified any material misstatements in the strategic report or 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 by the charitable company, or returns adequate for our audit have not been received from branches not visited by us; or
- the charitable company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of trustees' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

We have nothing to report in respect of these matters.

Use of our report

This report is made solely to the charitable company's sole member, 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 sole member 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 sole member as a body, for our audit work, for this report, or for the opinions we have formed.



Jessica Hodges ACA (Senior statutory auditor)
For and on behalf of Deloitte LLP
Statutory Auditor
London, UK
13th Decemeber 2023

Financial Statements

Statement of Financial Activities (incorporating an Income and Expenditure Account) for the year end 30 September 2023

		2023	2023	2023	2023	2022
		£'000	£'000	£'000	£'000	£'000
	Note	Unrestricted	Endowment	Restricted	Total funds	Total funds
INCOME						
Income from charitable activities		-	-	156,722	156,722	126,878
Income from other trading activities		27,661	-	4,522	32,183	58,444
Investment income		-	-	-	-	594
Interest		-	17	109	126	24
Total income	3	27,661	17	161,353	189,031	185,940
EXPENDITURE						
Charitable activities	4	(24,427)	-	(159,618)	(184,045)	(183,161)
Total expenditure		(24,427)	-	(159,618)	(184,045)	(183,161)
Unrealised gain on investments	10	1,780	-	-	1,780	683
Net income		5,014	17	1,735	6,766	3,462
Other recognised gains						
Actuarial gains on defined benefit pension scheme	8	-	-	68,300	68,300	149,900
Total funds brought forward at 1 October	22	31,622	687	164,184	196,493	43,131
Total funds carried forward at 30 September		36,636	704	234,219	271,559	196,493

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

All income and expenditure derive from continuing activities.

2022 comparatives are given in note 23.

The notes on pages 35 to 54 form part of these financial statements.

Balance Sheet
As at 30 September 2023

	Note	Total funds 2023 £'000	Total funds 2022 £'000
Fixed assets			
Tangible assets	9	172,518	162,440
Investments	10	6,881	5,080
Total fixed assets		179,379	167,520
Current assets			
Stock	12	4,963	9,841
Debtors	13	67,038	66,999
Cash at bank and in hand		13,809	7,516
Total current assets		85,810	84,356
Creditors: amounts falling due within one year	14	(45,100)	(48,780)
Net current assets		40,710	35,576
Total assets less current liabilities		220,089	203,096
Creditors: Amounts falling due after one year	15	(27,300)	(17,224)
Provisions	16	(3,430)	(3,079)
Net assets excluding pension asset		189,359	182,793
Defined benefit pension scheme asset	8	82,200	13,700
Total net assets		271,559	196,493
The Funds of the Charity			
Restricted income funds	22	152,019	150,484
Endowment fund	22	704	687
Pension funds	8	82,200	13,700
Total restricted funds		234,923	164,871
Unrestricted funds	22	36,636	31,622
Total Charity funds		271,559	196,493

The notes on pages 35 to 54 form part of these financial statements. The financial statements on pages 33 to 54 were approved and authorised for issue by the Board of Directors on 11 December 2023 and were signed on its behalf by:

Paul Schreier



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.

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 also 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 22.

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 measurable 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.

Investment income is recognised when an investment is sold for more than its carrying value.

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.

Redundancy costs are recognised in the period in which the employees affected are notified of the decision.

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
<u>Laboratory equipment fixtures and fittings</u>	
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 translated 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 initially recognised at cost and subsequently measured at fair value at each reporting date. If fair value cannot be measured reliably, they are measured at cost less impairment. Given the investments made by the Charitable Company are at the early stage, it is considered that the only likely indicator of fair value is a recent funding round. The price of the recent funding round may provide a good indication of fair value unless there is objective evidence that the investment has since been impaired, such as observable data suggesting a deterioration of the financial, technical, or commercial performance of the underlying business.

In the instance where a reliable fair value had previously been available but can no longer be determined, the previous value is deemed to be the cost for the purpose of measuring the cost and then reviewed for impairment. Where there has been no funding round, the investments are held at the original cost of the share subscription. 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 asset (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 amounts due to employees in relation to investment gains, 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.

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.

Going Concern

In assessing whether the going concern assumption is appropriate, the Trustees take 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. 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. The year ended 30 September 2023 was the second year in a five year award from GRL's parent company, Wellcome. Management have sufficient discretion over spend to ensure expenditure remains within budget over the five year period. After considering the 2023-24 budget and strategic plan for 2021-2026, income under trading contracts and the 5 year award from Wellcome for 2021-2026, the Trustees are satisfied that it is appropriate to adopt the going concern basis in preparing the financial statements of GRL.

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.

Investment valuation

The Charitable Company holds unquoted programme related investments. Judgement is required to determine whether the investments' fair values can be measured reliably. Where there is recent funding round, management assesses whether the price of the recent funding round provides a good indication of fair value. Management considers whether GRL or other investors have participated in that funding round, and then assesses whether there is any observable data as to whether the price is a fair value to provide a basis for valuation. Where the latest funding round is not recent, then management assesses whether the previous price can be used as a deemed cost and assesses whether there has been any deterioration in the financial, technical, or commercial performance of the underlying business. Management will also look at other indicative financial data, where available, such as net asset value or discounted cashflows to see whether that indicates impairment provision to the deemed cost.

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 19.

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. The contract was completed in the year ended 30 September 2022.

Fair value measurement and valuation processes

Fair value of programme related investments is estimated by reference to the price of recent investment, where available. If there are indicators that this price is not a reliable estimate of fair value, the price may be adjusted. If it is determined there is no reliable basis for estimating fair value, the investment is held at cost less impairment.

3. TOTAL INCOME

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

Detailed analysis follows:

	2023	2022
	£'000	£'000
Sanger Institute	148,319	118,314
Connecting Science	5,044	3,993
Enterprise and Innovation (Campus)	3,359	4,571
Total income from charitable activities	156,722	126,878
Core grants from Wellcome	118,850	92,464
Other grants from Wellcome	3,150	3,710
Grants from other funders	34,722	30,704
Total grants from charitable activities	156,722	126,878
Income from other trading activities	32,183	58,444
Investment income	-	594
Interest	126	24
Total income	189,031	185,940

Income includes grant funding for both capital and operating expenditure. Grants from other funders includes £1.1 million government research grants (2022: £2.9 million). There are no unfulfilled conditions attached to these grants. Other trading income includes income from sequencing services, of which £20.7 million (2022: £46.5 million) 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. Other trading income of £27.6 million (2022: £54.0 million) relates to unrestricted funds. Interest income of £126,000 (2022: £24,000) has been recognised in the year, of which £17,000 (2022: £16,000) relates to the endowment fund. Investment income in the year ended 30 September 2022 of £0.6 million related to gains on the sale of Programme Related Investments and is unrestricted income (note 10).

Wellcome grants and trading income is derived from the UK, other than licensing income of £3.5 million (2022: £2.4 million) from our COSMIC platform which is sold via an agency in Germany. In the opinion of the Directors, other grant funding does not differ substantially between countries due to the collaborative nature of the research performed, and so is considered one market. Investment income in the previous period was derived from the USA. All income is derived from activities in the UK.

4a. EXPENDITURE

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

	2023			2022		
	Direct	Support	Total	Direct	Support	Total
	£'000	£'000	£'000	£'000	£'000	£'000
Sanger Institute	158,229	15,948	174,177	155,819	14,979	170,798
Connecting Science	5,381	542	5,923	5,259	506	5,765
Enterprise and Innovation	3,584	361	3,945	6,019	579	6,598
	167,194	16,851	184,045	167,097	16,064	183,161

Support costs have been allocated in proportion to direct costs. Support costs include staff costs of £11.5 million (2022: £9.4 million), depreciation of £0.7 million (2022: £0.7 million), premises costs of £2.6 million (2022: £1.8 million) and other costs of £2.1 million (2022: £4.2 million). Support costs include governance costs.

4b. GOVERNANCE COSTS

	2023	2022
	£'000	£'000
External audit costs	178	164
Internal audit costs	139	73
Directors' remuneration and expenses (see note 7)	9	8
	326	245

Governance costs have been allocated in proportion to direct costs.

5. GRANTS AWARDED

Expenditure related to grants awarded is as follows:

	2023	2022
Grants to Institutions	£'000	£'000
University of Cambridge	2,959	2,736
EBI-EMBL	529	-
University of Southern California	320	-
Josep Carreras Leukaemia Research Insititute	315	-
Lahore Univeristy of Management Sciences	292	80
King's College London	270	-
University of Tartu	256	50
Ghent University	237	534
London School of Hygiene & Tropical Medicine - MRC Unit, Gambia	209	138
University of Alabama	115	505
The Broad Institute	4	638
Weizmann Institute of Science	41	271
Catalonia Insititute for Energy Research	-	207
Imperial College London	-	232
Grants to other Institutions	2,648	2,138
	8,195	7,961

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 normally made to the host institution.

Included within Sanger Institute support costs (see note 4a) is an amount of £0.8 million (2022: £0.7 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. All outstanding liabilities for grants not paid are recognised as accruals for grants payable in note 14 (Creditors: amounts falling due within one year).

6. NET INCOME BEFORE OTHER GAINS AND LOSSES

Net income before other gains and losses is stated after charging (crediting):

	2023	2022
	£'000	£'000
Foreign exchange gains	(2,524)	(3,856)
Depreciation	12,626	14,276
Gain on disposal of fixed assets	(460)	(54)
Internal audit	139	73
Fees payable to the company's auditor for the audit of:		
Statutory financial statements	167	154
Pension Fund	11	10

7. EMPLOYEE INFORMATION

Number of employees

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

		2023	2022
		Number	Number
Sanger Institute		994	919
Connecting Science		56	53
Enterprise and Innovation		6	7
Administrative		215	208
		1,271	1,187
Analysed by	Cancer	132	121
Sanger Institute	Cellular Genetics	102	87
	Human Genetics	70	69
	Parasites and Microbes	73	130
	Tree of Life	83	69
	Genomics Surveillance Unit	85	-
	Open Targets	60	58
	Science Platforms	229	244
	Science Strategy	22	23
	Science Support	4	4
	IT Platforms	126	108
	Translation	8	6
	Total	994	919
Connecting Science		56	53
Enterprise and Innovation		6	7
Administrative		215	208
Total Employees		1,271	1,187
PhD Students		62	60
Total Headcount		1,333	1,247

Genome Research Limited

Notes to the Financial Statements for Year Ended 30 September 2023

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 headcount total. Included in the monthly average shown opposite are 1,209 (2022: 1,114) full time employees and 127 (2022: 133) part time employees.

In 2022, Genomics Surveillance Unit employees were part of the Parasites and Microbes programme.

	2023	2022
Employment costs	£'000	£'000
Wages and salaries	66,813	56,458
Social security costs	7,198	5,976
Short term benefits	1,444	1,000
Pension costs	7,905	9,710
	83,360	73,144

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:

	2023	2022
	Number	Number
£60,000 to £69,999	119	58
£70,000 to £79,999	41	24
£80,000 to £89,999	25	13
£90,000 to £99,999	19	10
£100,000 to £109,999	11	5
£110,000 to £119,999	4	7
£120,000 to £129,999	4	2
£130,000 to £139,999	3	1
£140,000 to £149,999	-	2
£150,000 to £159,999	2	5
£160,000 to £169,999	-	3
£170,000 to £179,999	6	1
£180,000 to £189,999	1	-
£210,000 to £219,999	2	-
£220,000 to £229,999	-	2
£240,000 to £249,999	1	-
£250,000 to £259,999	1	-
£360,000 to £369,999	1	-
£380,000 to £389,999	-	1

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

Redundancy and termination payments

	2023	2022
	£'000	£'000
Redundancy and termination costs	315	399

Redundancy payments have been made to individuals where an organisational restructure has resulted in their existing roles no longer being required. All redundancy payments have been paid in the year.

The Directors of GRL received no remuneration in relation to their duties as Directors, however they received remuneration totalling £7,650 (2022: £7,650) in respect of other positions held and travel and accommodation expenses of £1,332 (2022: £885). No other benefits or expenses were reimbursed to the directors of the Charitable Company. Four 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

	2023	2022
	£'000	£'000
Salaries and other short-term benefits	712	705

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 2021 and has been updated to 30 September 2023 by a qualified actuary, independent of the scheme's sponsoring employer. The major assumptions used by the actuary are shown below:

	30 September 2023	30 September 2022	30 September 2021
Inflation (RPI)	3.20%	3.50%	3.30%
Inflation (CPI)	2.90%	3.15%	2.95%
Salary Growth	n/a	n/a	n/a
Discount Rate	5.55%	4.90%	2.00%
Allowance for revaluation of deferred pensions of RPI of	3.20%	3.50%	3.30%
Allowance for pension in payment increases of RPI or 5%	2.90%	3.20%	3.15%
Allowance for pension in payment increases of CPI or 3%	2.05%	2.20%	2.30%
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 2023	30 September 2022
Male retiring in 2023 (2022)	26.0 years	26.6 years
Female retiring in 2023 (2022)	27.5 years	28.7 years
Male retiring in 2043 (2042)	28.3 years	28.1 years
Female retiring in 2043 (2042)	29.8 years	30.2 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 2023 and 30 September 2022 were derived based on the expectation that RPI will increase in line with CPIH from 2030 and therefore 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 2021, showed that the plan had a surplus of £42.9 million.

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.

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 financial year:

	2023 £m	2022 £m
Operating charge		
Expenses**	0.5	0.3
Net interest (income) cost	(0.7)	2.7
Net (gain) charge to Statement of Financial Activities prior to actuarial gain	(0.2)	3.0
Actuarial gain	(68.3)	(149.9)
Total gain in Statement of Financial Activities	(68.5)	(146.9)

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

(ii) Defined benefit costs recognised in other comprehensive

	2023	2022
	£m	£m
Return on plan assets* - gain (loss)	28.1	(50.6)
Experience losses arising on the plan liabilities	(11.3)	(48.8)
Effects of experience adjustments	51.5	249.3
Total amount recognised in other comprehensive income - gain	68.3	149.9

*Excluding interest income

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

	2023	2022
	£m	£m
Fair value of scheme assets at start of year	295.7	342.5
Interest income	14.4	6.8
Return (loss) on plan assets (excluding interest)	28.1	(50.6)
Benefits paid & death in service insurance premiums	(3.4)	(3.0)
Fair value of scheme assets at end of year	334.8	295.7

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 10.5%
Rate of inflation	Increase/decrease of 0.5% p.a	Increase/decrease by 5.8%
Life expectancy	Increase/decrease of 1 year	Increase/decrease by 1.7%
Long-term rate of mortality improvement	Increase/decrease of 0.25% p.a	Increase/decrease by 0.6%

Contributions payable to the defined benefit scheme during the year amounted to £nil (2022: £nil). £0.4 million (2022: £0.6 million) was paid in respect of scheme administration expenses and insurance premiums for death in service benefits. The actual return (loss) on the plan assets over the period ended 30 September 2023 was £42.5m (2022: £43.8m loss).

The best estimate of contributions to be paid by the employer to the scheme for the year beginning after 30 September 2023 is £nil (2022: £nil), as the scheme is closed to further accrual.

Scheme Assets

	30 September	30 September	30 September
	2023	2022	2021
Equity	334.8	295.5	341.5
Other (Property, Cash, etc.)	-	0.2	1.0
Total Assets	334.8	295.7	342.5

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

	2023	2022
	£m	£m
Scheme liabilities at start of year	282.0	475.7
Expenses	0.5	0.3
Interest expense	13.7	9.5
Actuarial gains	(40.2)	(200.5)
Benefits paid & death in service insurance premiums	(3.4)	(3.0)
Scheme liabilities at end of year	252.6	282.0

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

	2023	2022	2021	2020	2019
	£m	£m	£m	£m	£m
Fair value of assets	334.8	295.7	342.5	274.7	252.9
Present value of scheme liabilities	(252.6)	(282.0)	(475.7)	(473.5)	(455.9)
Surplus (deficit) in scheme	82.2	13.7	(133.2)	(198.8)	(203.0)
Return on scheme assets	28.1	(50.6)	58.7	11.0	6.0
Experience (losses) gains on scheme liabilities	(11.3)	(48.8)	3.9	1.5	(0.7)
Effects of changes in the demographic and financial assumptions underlying the present value of the scheme liabilities	51.5	249.3	4.7	3.8	(86.0)

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:

	2023	2022
	£'000	£'000
Current period contributions	7,890	6,719

Contributions paid to the defined contribution scheme during the year amounted to £7.9 million (2022: £6.7 million). Pension contributions are allocated between funds and activities based on the work each employee performs.

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 2022	6,171	198,395	155,464	360,030
Additions	13,430	2,692	6,593	22,715
Transfers	(4,200)	971	3,229	-
Disposals	-	-	(3,901)	(3,901)
As at 30 September 2023	15,401	202,058	161,385	378,844
Accumulated depreciation				
As at 1 October 2022	-	61,026	136,564	197,590
Charge for the year	-	4,281	8,345	12,626
Disposals	-	-	(3,890)	(3,890)
As at 30 September 2023	-	65,307	141,019	206,326
Net book value at 30 September 2023	15,401	136,751	20,366	172,518
Net book value at 30 September 2022	6,171	137,369	18,900	162,440

10. PROGRAMME RELATED INVESTMENTS

	2023 £'000	2022 £'000
At 1 October	5,080	4,398
Additions	1	-
Unrealised gains	1,780	682
At 30 September	6,861	5,080

As at 30 September 2023, £3.4 million (2022: £5.1 million) of programme related investments were stated at fair value and £3.5 million (2022: £nil) were stated at cost less impairment. Unrealised gains is comprised of £3.0 million gains, representing an increase in the estimated value, offset by £1.2 million losses. All gains and losses arose as a result of remeasurement of fair value.

Unquoted programme related investments represent the Institute's holding of ordinary share capital of Microbiotica Ltd (4%) and Congenica Ltd (2%), Mosaic Therapeutics Limited (9%) Quotient Inc (2%) and Ensocell Limited (14%). Shares in Mosaic Therapeutics Limited, Quotient Inc and Ensocell Limited were acquired during the year under translation agreements for a total consideration of £726.

Investments in subsidiaries as at 30 September 2023 and 2022 were held at £1 (see note 21).

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 £3.9 million (2022: £4.9 million). This amount is charged in the accounts with its related expenditure.

12. STOCK

	2023	2022
	£'000	£'000
Raw materials and consumables	4,963	9,841

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

13. DEBTORS

	2023	2022
	£'000	£'000
Trade debtors	6,056	2,781
Amounts owed by parent undertaking	45,780	47,745
Amounts owed by subsidiary undertakings	144	256
Prepayments	9,331	9,171
Accrued income	4,203	5,125
Other debtors	1,524	1,921
	67,038	66,999

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.

Amounts owed from subsidiary undertakings include £0.1 million (2022: £0.1 million) due from Genome Research Trading Limited and £nil (2022: £0.2 million from Mosaic Therapeutics Limited).

None of the amounts shown above are due after one year.

14. CREDITORS: Amounts falling due within one year

	2023	2022
	£'000	£'000
Trade creditors	6,271	4,524
Amounts owed to group undertakings	1,798	622
Taxation and social security	2,042	2,489
Other creditors	1,816	1,335
Accruals for grants payable	450	450
Other accruals	6,501	4,818
Deferred income	26,222	34,542
	45,100	48,780

Amounts owed to group undertakings are payable to GRL Construction Limited. Amounts owed are unsecured, interest free, have no fixed date of repayment and are repayable on demand.

15. CREDITORS: Amounts falling due after one year

				2023	2022
				£'000	£'000
Between one and five years - deferred lease premium				3,491	1,597
More than five years - deferred lease premium				23,809	15,627
				27,300	17,224
Deferred income	Lease premium	Grant income	Trading contracts	2023 £'000	2022 £'000
At 1 October	17,756	20,271	13,739	51,766	42,717
Received during the year	11,230	36,584	2,399	50,213	43,821
Released to income during for the year	(762)	(34,965)	(12,730)	(48,457)	(34,772)
At 30 September	28,224	21,890	3,408	53,522	51,766

The deferred lease premium of £28.2 million (2022: £17.8 million), including a short term element of £0.9 million (2022: £0.5 million), relates to a lease premium received from the European Bioinformatics Institute. The deferred grant income of £21.9 million (2022: £20.3 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.

16. PROVISIONS

				2023	2022
				£'000	£'000
Amounts owed in respect of employee share of investment gain				2,764	2,171
Amounts owed in respect of transferring faculty members				666	837
Amounts owed in respect of the closure of the Research Support Facility				-	71
				3,430	3,079
	Investments	Faculty	RSF	2023 £'000	2022 £'000
At 1 October	2,171	837	71	3,079	5,375
Charge during the year	1,006	556	-	1,562	2,035
Released during the year	(413)	(349)	(59)	(821)	(1,840)
Utilised during the year	-	(378)	(12)	(390)	(2,490)
At 30 September	2,764	666	-	3,430	3,079

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. The facility closed in full on 30 September 2021. The release during the year represents individuals who accepted alternative long term positions at the company and are therefore no longer eligible for redundancy.

17. COMMITMENTS

As at 30 September 2023 there were £16.2 million capital commitments contracted but not accrued, including £0.1 million relating to improvement projects in the laboratories and data centre, and £16.1 million in relating to the construction of a new building on Campus (2022: £28.1 million, including £1.4 million relating to conversion of the former Research Support Facility into a new logistics Hub and lab space, and £26.5 million in relating to the construction of a new building on Campus). The Charitable Company has entered into an agreement with the tenant to cover the full cost of construction. The building is expected to be completed in early 2024. The commitment represents the proportion of the development work that is yet to be carried out.

The Charitable Company has committed to supporting a trading subsidiary, Genome Research Trading Limited ('GRTL'), by provision of a loan, up to the value of £0.3 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 make sufficient profits. This is expected to be in the year ended 30 September 2024. As at 30 September 2023, £0.1 million had been paid to GRTL.

18. CONTINGENT ASSETS AND CONTINGENT LIABILITIES

The terms of the sale of a previously held programme related investment, Kymab Limited, sold in April 2021, included certain contingent consideration payable on achievement of certain milestones. As the achievement of these milestones is outside of the control of the Charitable Company, no asset has been recognised in relation to these milestones as of 30 September 2023 (2022: £nil). 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 crystallised gain (see note 16: Provisions). The maximum future cash inflows is £3.1 million (2022: £3.5 million) and corresponding liability of £2.1 million (2022: £2.5 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 2023, a total of £nil had been awarded to individuals who had yet to reach an arrangement with a new institute (2022: £0.8 million).

19. OPERATING LEASES

The Charitable Company receives rental income under operating leases from tenants of the Biodata Innovation Centre ('BIC') and Bridget Ogilvie Building ('Ogilvie'), and the sublease of land to a subsidiary, Hinxtion Hall Limited. As at 30 September 2023, the future minimum lease payments due to the Charitable Company under these arrangements is as follows:

Rental agreements for BIC tenants range from two to six years in duration. BIC tenants are early stage companies in the field of genomics. The

	2023	2022
	£'000	£'000
Within one year	1,068	933
Between one and five years	1,554	1,736
More than five years	3,965	4,115
	6,587	6,784

Ogilvie building is used for sequencing. The sublease of land to Hinxtion Hall Limited is coterminous with the Charitable Company's lease and expires in February 2055. In addition to the above, the Charitable Company leases property to the European Bioinformatics Institute. The lease was paid in full on construction of the building and there are no further payments due. The amounts paid up front are held as a deferred lease premium (see note 15). There are no contingent rent agreements.

20. 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 the 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 55.

21. 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 2023 are as follows:

Name of subsidiary and company number	Proportion of ownership	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
GRL Construction Limited (09280062)	100%	100%	Construction

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

Mosaic Therapeutics Limited, a subsidiary as at 30 September 2022, raised equity in the year and is no longer considered a subsidiary of GRL.

All shares held in subsidiarys are ordinary shares. 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 2023 of £2.9 million (2022: £1.6 million).

22. MOVEMENT IN FUNDS

	2022 £'000	Incoming £'000	Outgoing £'000	Gains £'000	2023 £'000
Building development	119,390	2,718	(4,385)	-	117,723
Capital equipment	13,882	8,362	(7,779)	-	14,465
Research fund	17,212	150,273	(147,654)	-	19,831
Restricted income funds	150,484	161,353	(159,818)	-	152,019
Endowment fund	687	17	-	-	704
Pension deficit	13,700	-	200	68,300	82,200
Total Restricted Funds	164,871	161,370	(159,618)	68,300	234,923
Investment fund	6,277	-	(607)	1,780	7,450
Unrestricted fund	25,345	27,661	(23,820)	-	29,186
Total Unrestricted funds	31,622	27,661	(24,427)	1,780	36,636
Total Charity Funds	196,493	189,031	(184,045)	70,080	271,559

	1 October			30 September	
	2021	Incoming	Outgoing	Gains	2022
	£'000	£'000	£'000	£'000	£'000
Building development	123,711	-	(4,321)	-	119,390
Capital equipment	16,941	6,842	(9,901)	-	13,882
Research fund	16,737	124,523	(124,048)	-	17,212
Restricted income funds	157,389	131,365	(138,270)	-	150,484
Endowment fund	670	17	-	-	687
Pension deficit	(133,200)	-	(3,000)	149,900	13,700
Total Restricted Funds	24,859	131,382	(141,270)	149,900	164,871
Investment fund	4,451	594	549	683	6,277
Unrestricted fund	13,821	53,964	(42,440)	-	25,345
Total Unrestricted funds	18,272	54,558	(41,891)	683	31,622
Total Charity Funds	43,131	185,940	(183,161)	150,583	196,493

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 2023:

	Restricted	Endowment	Pension	Unrestricted	Total
	£'000	£'000	£'000	£'000	£'000
Fixed assets	172,518	-	-	-	172,518
Investments	-	-	-	6,861	6,861
Current assets	55,974	704	-	29,132	85,810
Current liabilities	(48,507)	-	-	3,407	(45,100)
Long term creditors	(27,300)	-	-	-	(27,300)
Provisions	(666)	-	-	(2,764)	(3,430)
Pensions	-	-	82,200	-	82,200
	152,019	704	82,200	36,636	271,559

The assets and liabilities of each category of funds were as follows as of 30 September 2022:

	Restricted	Endowment	Pension	Unrestricted	Total
	£'000	£'000	£'000	£'000	£'000
Fixed assets	162,440	-	-	-	162,440
Investments	-	-	-	5,080	5,080
Current assets	68,696	687	0	14,973	84,356
Current liabilities	(62,520)	-	-	13,740	(48,780)
Long term creditors	(17,224)	-	-	0	(17,224)
Provisions	(908)	-	-	(2,171)	(3,079)
Pensions	-	-	13,700	-	13,700
	150,484	687	13,700	31,622	196,493

23. COMPARATIVE STATEMENT OF FINANCIAL ACTIVITIES

		2022	2022	2022	2022	2021
		£'000	£'000	£'000	£'000	£'000
	Note	Unrestricted	Endowment	Restricted	Total funds	Total funds
INCOME						
Income from charitable activities		-	-	126,878	126,878	137,163
Income from other trading activities		53,964	-	4,480	58,444	76,196
Investment income		594	-	-	594	8,073
Interest		-	17	7	24	26
Total income	3	54,558	17	131,365	185,940	221,458
EXPENDITURE						
Charitable activities	4	(41,891)	-	(141,270)	(183,161)	(207,875)
Total expenditure		(41,891)	-	(141,270)	(183,161)	(207,875)
Unrealised gain on investments	10	683	-	-	683	67
Net income (expenditure)		13,350	17	(9,905)	3,462	13,650
Other recognised gains						
Actuarial gains on defined benefit	8	-	-	149,900	149,900	67,300
Net movement in funds		13,350	17	139,995	153,362	80,950
Total funds (deficit) brought forward	22	18,272	670	24,189	43,131	(37,819)
Total funds carried forward at 30 September		31,622	687	164,184	196,493	43,131

24. POST BALANCE SHEET EVENTS

There were no post balance sheet events requiring disclosure in or adjustment to the financial statements at the date of signing.

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:

Paul Schreier (Wellcome Trust)	Daniel Mahony
Daniel Abrams	Cheryl Moore (Wellcome Trust)
Gilean McVean	Jeremy Farrar (Wellcome Trust) (Resigned 27 February 2023)
Cilla Snowball (Wellcome Trust—Governor)	Kay Davies (Resigned 27 February 2023)
Nicole Mather	

Company Secretary

Nadia Meliti

Registered Office & Principal Place of Business

Wellcome Sanger Institute
Wellcome Genome Campus
Hinxton
Saffron Walden
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

Mercer Limited
1 Tower Place West
Tower Place
London
EC3R 5BU

Genome Research Limited
Wellcome Genome Campus
Hinxton, Cambridge
CB10 1SA
Charity Registration: 1021457
Company Number: 2742969