A very warm welcome to the Wellcome Sanger Institute.

The mission of the Institute is to use information from genome sequences to advance understanding of biology and improve health. We achieve this through large-scale science that cannot feasibly be conducted elsewhere.

We are still in the foothills of extracting and using the knowledge buried in the three billion letters of code in the human genome. The ever increasing numbers of human genomes sequenced are revealing new patterns of variation that continue to reshape our understanding of human biology in health and disease and are leading to remarkable new applications. Exploration of the genomes of infectious disease-causing microorganisms is providing profound insights into their evolution and spread and has transformed their clinical and public health management. We now view sequencing of the genomes of all eukaryotic life on Earth as an achievable goal with far-reaching implications for our custodianship of a fragile planetary ecosystem. The ability to change and redesign genomes is gaining momentum with many potential long-term ends. Together these themes underpin the vision at Sanger.

Our Faculty are our intellectual leaders. Through their flow of ideas, new landscapes of biology are explored through genome sequences, new technologies to be deployed and new applications are developed and implemented. Our GL1 and GL2 Faculty are at a relatively early stage in their careers, refining and elaborating their research visions. Our GL3 Faculty are established, internationally leading scientists whose collective research portfolio embodies the Institute’s long-term science strategy and who shape its future.

The Institute places all its people at the forefront of its collective consciousness, considering diversity and inclusion, learning and personal development, respect for colleagues in a collaborative work environment and exemplary standards of research culture as the pillars supporting our research portfolio. It is a particularly exciting time to join us as we embark on a major expansion of the Wellcome Genome Campus to create a world-leading international centre for business, cultural and educational activities emanating from Genomes and BioData on the established foundations of the scientific research of the Sanger Institute, the EMBL-European Bioinformatics Institute and other Campus partners.

The potential of genome science in its many forms to advance knowledge of life and enable us to better care for it is almost beyond imagination. The Wellcome Sanger Institute will remain in the vanguard of the revolution in science and society that this brings. Each of our five scientific Programmes is recruiting new Faculty to build their scientific strategy for the future and we strongly encourage you to consider the extraordinary opportunities here for the next phase of your scientific journey.

Professor Sir Mike Stratton, FMedSci FRS
Director of the Wellcome Sanger Institute and
Chief Executive Officer of the Wellcome Genome Campus
The Wellcome Sanger Institute is a world-leading genomics research centre, based on the Wellcome Genome Campus, arguably the largest single-site community of expertise in Genomes and BioData in the world. We undertake large-scale research that forms the foundations of knowledge in biology and medicine. We are open and collaborative; our data, results, tools and technologies are shared across the globe to advance science. We know the success of our Institute depends on our people – we celebrate and value our staff for their differences in background, experience and perspectives.

Our ambition is vast – we take on projects that are not possible anywhere else.

We use the power of genome sequencing to understand and harness the information in DNA.

The Institute’s science is embodied as five Programmes encompassing areas of biology and disease in which genome sequences will be transformative. It is designed in this fashion to maximise the breadth of scientific impact and achieve science at scale.

The Institute is recruiting Faculty members – aiming to explore new frontiers of genomics. It’s an exciting time to join the Sanger Institute as we recruit exceptional scientists in all five of our research Programmes, spanning all levels of our Faculty model. You’ll join a unique, vibrant and interactive research environment with an internationally outstanding genomic research centre at the heart. As a Core Faculty member you will lead a research team in one of the five programmes, and contribute to the Institute’s scientific portfolio. Our Institute is designed to have a total of 35 Faculty teams across the five Programmes and boasts over 1,100 staff members and almost 500 visiting workers, working collaboratively to drive forward the Institute’s mission.

Faculty positions carry a significant core package of salaries and support, which are backed by rewarding and flexible employment terms including excellent benefits and relocation support. Our exceptional core funding enables Faculty to focus their energy on science.

You will join our Faculty who have diverse expertise in biology, genetics, medicine, pathology, technology, informatics, computational science, mathematics and statistics. Our Faculty members work alongside each other with a particular scientific culture and intellectual critical mass supported by technical, IT and analytic support to develop and follow bold ideas in an agile manner.

Our Faculty community intellect spawns novel questions, experimental designs and modes of exploration of genomes and leads in their investigation, is undaunted by challenges of scale, includes DNA sequencing and other forms of large-scale experimentation, is systematic and globally descriptive in approach, is skilled in handling and advanced interpretation of
large-scale data, nucleates bold thinking in the wider scientific community and is receptive to new ideas from other scientists.

Funded by Wellcome, we have the freedom and support to push the boundaries of genomics. Our findings are used to improve health and to understand life on Earth.

**Cancer, Ageing and Somatic Mutation**
The Cancer, Ageing and Somatic Mutation Programme uses genome sequencing and experimental models to study the causes and consequences of somatic mutations through youth and old age, in steady state and after perturbation, across organ systems, and in health and disease.

The Programme is seeking two exceptional scientists with research interests in cancer genomics, somatic mutation analysis, high-throughput model systems, computational biology and genome editing. For more information, please visit page 16.

**Cellular Genetics**
The Cellular Genetics Programme is focused on cell-atlasing and cellular genetics. The Programme uses these approaches to map cells in the human body combining cutting-edge methodologies and computational approaches. This enables us to understand what the identities of cells are, how they are regulated, relationships between them and, importantly, how this can change during development, health, disease and ageing.

The Programme is seeking an exceptional scientist to deepen our understanding of human cell biology and tissue architecture. For more information, please visit page 18.

**Human Genetics**
The Human Genetics Programme will achieve a step-change in our understanding of genetic causes and biological mechanisms of disease susceptibility and progression, focusing on developmental disorders and diseases of the blood and immune system, and in so doing transform the clinical utility of human genetic variation.

The Programme is seeking a senior Faculty member with research interests in cellular genetics, blood and immune-mediated diseases and developmental disorders.
For more information, please visit page 20.

**Parasites and Microbes**
The Parasites and Microbes Programme is using genomics to get at important problems in infectious disease, with a strong desire to translate this into tools for disease control and elimination, whilst also being at the forefront of basic research into microbial ecology, evolutionary genetics and the biology of parasitism.

The Programme is seeking two leaders at any level within the Institute’s Faculty model with research interests in malaria biology and respiratory metagenomics. For more information, please visit page 24.

**Tree of Life**
The Tree of Life Programme investigates the diversity of complex organisms (eukaryotes – organisms that have a nucleus) through sequencing and cellular technologies. They generate and use high-quality genome sequences to explore the evolution of life, provide the raw materials for new biotechnology and deliver tools and understanding for biodiversity conservation.

The Programme is looking for up to four group leaders who can push the technical and scientific boundaries, building on a sequencing core that is scaling to sequence thousands of new genomes a year. For more information, please visit page 27.
Our mission
The Sanger Institute’s mission is to use information from genome sequences to advance understanding of biology and improve health.

Our science has three main goals:

• To provide new insights into the biology of humans and other organisms.

• To better understand the causes and progression of human disease, and to provide the scientific basis for improving disease prevention and management.

• To elucidate the evolutionary tree of life and to advance the scientific knowledge base used to manage the living environment. To further the knowledge base for synthetic genomics.

For further information and to learn about our three major experimental approaches, visit www.sanger.ac.uk/about/who-we-are/.

“The Wellcome Sanger Institute is home to some of the most exciting, diverse and world leading genomics research taking place today. The campus offers an inclusive, supportive environment and the chance to collaborate and share perspectives with researchers from across a range of backgrounds. New Faculty members will play a pivotal role in making the discoveries that can improve human health for all”

Sir Jeremy Farrar, OBE FRCP FRS FMedSci
Director of Wellcome, GRL Director

The Institute and the wider Wellcome Genome Campus operate under the name of Genome Research Limited (GRL). GRL was established in 1992 and is a wholly owned subsidiary of the Wellcome Trust. In 2012, the Wellcome Trust Board of Governors agreed to place all activities, on the Wellcome Genome Campus, including the Sanger Institute, under the auspices of GRL in order to facilitate the development of a long-term and coherent strategy for the Campus and all activities on it. For more information about who we are, visit www.sanger.ac.uk/about/who-we-are/sanger-institute/genome-research-limited/.
Delivering our science through unrivalled facilities, partnerships and collaborations

The high-throughput, large-scale biological research undertaken at the Institute is a central defining characteristic distinguishing our science from that of most research institutes and universities.

Our Faculty members are resourced at a level that's beyond the reach of other UK institutions, with funding for Faculty teams and access to sequencing and informatics platforms and other programme support provided as routine.

DNA Sequencing

The DNA Sequencing team supports the research of all Sanger Institute scientists in their use of genomic data to understand the underlying biology of health, disease and evolution. From cancer to the individual cells that make up a human body, and from parasitic worms to endangered species, our DNA sequencing teams employ specialist knowledge to apply a range of DNA reading technologies.

Cellular Operations

The Cellular Operations team, consists of approximately 60 scientists with specialist skills and experience across a number of key technology platforms. They provide cell biology expertise and support to enable the delivery of projects across the various scientific Programmes at the Institute.

Informatics and Software Development

The Sanger Institute houses one of the most powerful supercomputing infrastructures in Europe. Our IT infrastructure uses cutting-edge genomic technologies and supports the entire workflow of data, from data generation to storage in databases and archival systems, research analysis by Faculty teams and publication on our website.

The teams are responsible for managing data at an unprecedented scale, and developing standards, tools and methods to meet the demands of the Sanger Institute’s Scientific Operations core platforms as well as collaborating with research Programme scientists to meet the wider demands of the organisation.

Scientific Operations: Strategy & Support

The Scientific Operations team works creatively, collaboratively and transparently to ensure they provide the right support, products and services, at the right scale, quality and value for the benefit of Sanger Institute’s world-leading research. They not only provide high-quality, professional administrative support, they are key facilitators in business process improvement and managing strategic relationships.

Cutting-edge technology and equipment

Our platforms continually evolve and develop to embrace new technologies and adapt to the ever-changing demands of bold new scientific challenges.
Discover our history and our recent achievements on our 2020-2021 Sanger Highlights.

**Our ecosystem**
We are privileged to work collaboratively with and be supported by our extended organisation and strategic partners.

Contributing to Institutional broader activities is recognised and encouraged as being an essential and important part of being a Faculty member. Faculty members demonstrate significant leadership in many cross-cutting strategic initiatives, for example through translational activities, supporting public engagement, data and resource generation for the wider community, and engaging in strategic partnerships and programmes.

Find more about our team, our science and our collaborations on our website.

**Technology Translation**
The Institute’s Technology Translation Team seeks to maximise uptake, distribution and benefit of our extraordinary science, not to maximise commercial returns. Sanger Technology Translation activities are founded upon a clear ethos: which is driven by improving lives, not optimising financial returns. The Sanger Institute has launched five spin-outs since 2010.

The Translation Team regularly engages with the Institute’s faculty in order to help identify and nurture promising opportunities at an early stage. Faculty members are encouraged to consider all translational possibilities and to discuss them with the Translation Office, they are not, however, obliged to carry out translational activities.
Connecting Science

Connecting Science, GRL’s learning and engagement programme, connects researchers, health professionals, and the wider public, creating opportunities and spaces to explore genomic science and its impact on people. They inspire new thinking, spark conversation, support learning, and measure attitudes, drawing on the Campus ground-breaking research.

Partnership with EMBL-European Bioinformatics Institute

Sanger and GRL have a long-standing partnership with EMBL-EBI, also located at the Wellcome Genome Campus. We have a shared vision of the importance of large biological data, and the openness of its provision, for the future of biomedical science. The partnership greatly enables both organisations to deliver their goals, with the data generation mission of the Sanger Institute complementing the data distribution mission of EMBL-EBI. The two Institutes collaborate extensively on data analysis, with many shared research programs across multiple biological sectors, have shared engagement and training activities, and shared people.

Open Targets

Open Targets, a consortium of the Sanger Institute, EMBL-EBI and pharmaceutical companies founded in 2014, is dedicated to identifying and validating new therapeutic targets through genome variation based approaches. It addresses a key challenge in drug development: that almost 90% of all drug discovery efforts fail during clinical trials. Major drivers for this are a lack of efficacy or poor safety profiles due to a lack of understanding of the biological target the drug is acting upon. Open Targets addresses this by combining the expertise of two scientific worlds to create a critical mass of knowledge and data that does not exist in any one organisation.

Associate Research Programme

The Associate Research Programme (ARP) is designed to expand the reach and impact of Sanger Institute science, providing opportunities to enrich, diversify and strengthen the science portfolio, while at the same time enabling external organisations and scientists to access the intellectual environment and data-generation/data analysis infrastructure at the Institute.

The two main components are partnership programmes, such as Open Targets (see above), and Associate Faculty, who are researchers from other Institutions who spend a significant portion of their time focused on a project at Sanger.

International Fellows Programme

The International Fellows are based in research institutes in low or middle income countries, and are appointed for two years. The Institute currently has six Fellows, based across Africa, South America and Asia, with affiliations with nearly all of the Sanger research Programmes.

During their two year appointment, they work collaboratively with Sanger Faculty on projects of joint research interest, and have access to Institute infrastructure and resources, including the option to spend extended periods of time at Sanger.
Our Faculty Model is an important framework in enabling the delivery of science excellence and for supporting the unique (in the UK) mission of the Institute to undertake ground breaking genome science at scale. Our privileged position as a recipient of substantial core funding from Wellcome places a particular responsibility on us to undertake and support large-scale programmatic science, addressing big questions and making a significant contribution to the sum of human knowledge.

All Faculty are assessed against their scientific contribution and strategic relevance and Faculty will be expected to demonstrate exemplary leadership skills, acting not only as high calibre external representatives for the Institute but also internally, providing clear, strong and supportive leadership. As proud signatories to DORA we use a range of measures to assess Faculty performance; we do not use metrics such as journal impact factor and place importance on a diversity of outputs. As such, we expect Faculty to contribute institutionally by supporting a wide range of activities such as strategic initiatives, training and mentoring junior researchers, being an effective member of committees and encourage Faculty to engage in activities that increase the impact of their research such as translation, policy or public engagement. Faculty are also are expected to demonstrate coaching, advising and providing proactive management to their teams, role modelling appropriate positive behaviours as outlined within the GRL Behavioural Competency Framework (BCF).

The Institute is committed to equality of opportunity and seeks to develop a balanced and inclusive Faculty who also demonstrate equitable approaches in terms of recruiting and developing their teams and will champion and lead an inclusive workplace culture.

"When searching for Faculty positions, I wanted to make sure my research interests would complement those of the prospective departments I was applying to. The Faculty recruitment process at Sanger allowed me to interact with multiple Faculty, get a sense of the ongoing research in the Human Genetics Programme and reassured me it was the right environment in which to set up my group. The funding structure, facilities and collaborative opportunities available at the Institute have enabled me to conduct research that would not be possible elsewhere and to focus on getting my group and projects established as soon as I started my GL1 position. The flexible relocation package also really helped with the costs associated with moving country."

Emma Davenport, Group Leader

Our Faculty levels

Group Leader 1 (GL1)

GL1 Faculty positions are designed to be a researcher's first or second group leader role and are the equivalent of a Lecturer at a UK University or Assistant Professor at a US University. They are focused on developing new and complementary areas of research within a Programme, and individuals at this level will have already contributed to research in an independent, original, and significant way with a strong trajectory and developing publication record. They should have an understanding and have contributed to the development and delivery of a coherent Programme strategy, and will have built up networks of research contacts and be confident in giving findings at conferences. Forward planning the work of their own group including how they will mentor and motivate their line reports is expected. These positions are six year posts.
**Group Leader 2 (GL2)**
During the course of their tenure, these Faculty roles become the equivalent of an Associate Professor and are intended to provide opportunities to develop an internationally competitive research portfolio and will have a track record of scientific publication, evidence of external recognition and other outputs leading to scientific impact and advancement of their discipline nationally and/or internationally. They will be able to reflect on and influence the Programme strategy; contributing to its development and delivery, coherence and agility. They will be able to show effective management of a research team, including planning at a larger scale and higher level of complexity. This will include leadership of a team including the development, proactive mentoring and motivation of colleagues and line reports. These positions are for eight years with a promotional review during the sixth year.

**Group Leader 3 (GL3)**
GL3 Faculty positions are the equivalent of a Professor at a UK university or a Full Professor at a US University. These positions provide significant internal and external leadership, scientifically and are designed to lead and develop Sanger's long-term research strategy and play a central role in the development of the Institute’s five-year research plans. Our GL3 Faculty have an outstanding international research profile and reputation and are leaders of a major research field or group. They provide strategic research leadership, making a significant contribution to the delivery, coherence and continuous development of the Programme to become a world-class research unit. They are thought-leaders used to contributing to peer review bodies/committees, professional organisations, learned societies, Government committees, etc and will be experienced in leading a team including mentoring and motivation of colleagues and line reports with evidence of impact. These positions have a rolling tenure but have a review every six years.

**Faculty vacancies**
It’s an exciting time to join the Sanger Institute as we recruit exceptional scientists in all five of our research Programmes, spanning all levels of our Faculty model. The vacancies for each Programme, can be found on the following pages:

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**Our funding**
The Sanger Institute is supported by a recurrent quinquennial core grant from Wellcome.

In addition to the core funding from the Wellcome, the Sanger Institute is supported by a number of external grants from funders including but not limited to: UK Research and Innovation, medical research charities, CZI, the Bill and Melinda Gates Foundation, the European Commision and NIH.

We encourage Faculty at the GL1 and GL2 levels to apply for external grants to supplement their core resource allocation and allot them laboratory/office space to do so. This is primarily to provide an experience of the process, gain personal external credibility, and to acquire resources of their own that could move with them if they leave the Institute.

We expect GL3 to take advantage of substantial external funding opportunities, particularly for major initiatives with large consumables budgets characteristic of many components of Sanger science.

Whilst we welcome additional research funding, our generous core funding from Wellcome places us in a unique position where obtaining additional funding is not required.
We strive to create opportunities that spark conversations and inspire new thinking as we pursue our common goal of scientific research to maximise the benefits of knowledge obtained through genome sequences.

To guide us, we have recently defined a set of core behaviours that we value and lay out our expectations for everyone. By demonstrating these attitudes and behaviours throughout GRL, we will build and support an inclusive culture where every member of our community is respected, heard and supported.

In assessing the best qualified applicants, we will focus on strategic fit, scientific achievement, experience, leadership and personal suitability in line with our core behavioural competencies.
Equality, Diversity and Inclusion

Our global reputation for excellence is strengthened by our commitment to developing and maintaining a positive, fair and healthy working environment – our Equality, Diversity and Inclusion (EDI) Programme is about valuing our people and supporting them to be their best. Our leaders play a key role in nurturing a positive and inclusive culture where everyone can thrive and diversity is celebrated.

We have developed an ambitious programme of activity that drives organisational culture change, empowers our leadership and ensures that equity and inclusion principles are embedded across all of our processes – from recruitment, promotion, reward, to accessing career development opportunities.

We provide a range of progressive policies which support everyone to achieve a positive work life balance. Our innovative and flexible approach within our scientific leadership model for Faculty who have taken parental leave, includes extending tenure by up to an additional 18 months to support the transition back to research; access to a flexible returners’ grant scheme when returning from parental leave and access to a carers’ grant that offers financial support. In considering candidates for a Faculty position, if an absence or career break may have impacted on scientific outputs, this will be taken into consideration.

In April 2020 we were delighted to be awarded the Athena SWAN Silver award, having been one of the first research institutes to achieve the Bronze award in April 2014. This equality charter was developed to recognise commitment to combating under-representation and advancing the careers of women in science.

In order to further reinforce our commitment to being a fully inclusive workplace, we became Stonewall Diversity Champions in 2020 to support LGBT+ inclusion. We are also signatories of the Race at Work Charter and Disability Confident scheme and are working towards these principles.

Our broader Wellcome Genome Campus-wide EDI initiatives include our LGBT+, Race Equity, Neurodiversity and Parent and Carers’ Staff Engagement Networks. These bring people together, raise awareness, provide specific and relevant support and development opportunities and are safe spaces for people to be themselves.

We are committed to providing equal opportunities for everyone, regardless of their background. We acknowledge that people from certain backgrounds are under-represented in our sector and we are committed to doing what we can to correct this. We positively encourage applications from candidates regardless of sex, race, disability, age, sexual orientation, gender reassignment, religion or belief, marital status, or pregnancy and maternity status.

For more information about EDI at GRL see our Equality in Science Programme.

Our strength lies in the diversity of our people, skills and ideas.
Our research culture
We believe that excellent research requires a strong research culture which values integrity and respect, creates the scientists and technicians of the future and maximises the impact of our research.

This year we have launched our Research Culture project to ensure that our work reflects the four pillars we believe are the fundamental underpinning of Good Research Practice Guidelines:

1. Research ethics, integrity and reporting
2. Respect, ethical behaviour and professional standards
3. Training, mentoring and leadership
4. Research visibility and impact

The four pillars are consistent with the broader expectations placed on all staff, to demonstrate honesty, integrity and respect and support staff development, and create an environment where views, from concerns to new ideas, will be actively listened to and acted upon.

We will be working over the next few years to ensure our research staff receive the support, training and development required to become excellent researchers and that we are able to provide the global scientific leadership we aspire to.

For more information, visit www.sanger.ac.uk/about/who-we-are/research-policies/good-research-practice/.

Our open research
The Sanger Institute was founded on the principle that a genome is a public good and as such is proudly committed to sharing its data, as well as the resources, materials and publications it produces. Rapid and open data sharing strategically supports the Institute’s mission by enabling research and accelerating translation. For more information, visit www.sanger.ac.uk/about/who-we-are/research-policies/open-access-science/.

As of 15 Aug, we’ve sequenced 528,014 coronavirus genomes
As a founding member of ICDA, we bring together scientists and stakeholders across 6 continents
Our cancer drug screening data has powered 70 research studies across the world
We’ve curated 28,000 druggable targets
Our employees have access to a comprehensive range of benefits and facilities including:

- **Relocation and visa support**
  Every year the Wellcome Sanger Institute supports the visits of dozens of overseas researchers from across the globe to the Genome campus to collaborate, share insights and undertake ground-breaking scientific research. We are proud to offer a reliable in-house service which provides expert advice and guidance to support you throughout your journey, and time at the Institute.

  Our visa support will ensure that you secure an immigration status that will allow you to fulfil your role as a Faculty Leader within the Institute; and is considerate to you and your family’s circumstances and long-term goals as you build your home in the UK.

  Moving house is never simple, and combining this with relocating to another country can make for a challenging experience. We understand that planning to relocate with a partner or children can add another level of complexity to a process where there is already a lot to consider.

  We, therefore, aim to provide you with information that facilitates a smooth transition to the UK, for everyone involved. From opening a bank account to accessing healthcare services, we highlight areas of importance at key points during your journey to ensure that your relocation is a success.

  Contact our team today to discuss starting your journey: international@sanger.ac.uk.

  To find out more information about our Global Mobility & Immigration Service, visit: www.sanger.ac.uk/about/careers/global-mobility-and-immigration-service/.

- **Summary of our benefits**
  - 25 days annual leave (rising to a maximum of 30 days)
  - Up to two days annual paid volunteering leave
  - Up to 10 days paid Emergency Carers Leave per year
  - Family-friendly environment including options for flexible and part-time working, an on-site Workplace Nursery with salary sacrifice schemes and a summer holiday club
  - Life Assurance Cover from day one
  - Group Income Protection Scheme
  - Enhanced maternity leave and parental leave
  - Access to a substantial number of courses and training opportunities
  - Private Healthcare Scheme
  - Eyecare and Dental payment plans
  - Concessions and discounts from our corporate perks site
  - Many staff networks you can be involved in, including:

Further information on our BCF and our benefits, can be found on our website.
The Cancer, Ageing and Somatic Mutation Programme comprises two major themes: (1) Genome sequencing to study somatic mutations in normal tissues, their causes, their consequences on disease and ageing phenotypes and how they vary across different organs, different individuals and different species; and (2) cellular and mouse models to study how mutations in cancer genes alter cell viability, unmask dependencies on essential genes and influence clonal dynamics and response to environmental stressors.

The Cancer, Ageing and Somatic Mutation Programme explores basic scientific questions about the role somatic mutation plays in clonal evolution, ageing and development, develops high-throughput cellular models of cancer for genome-wide functional screens and drug testing and provides leadership in data aggregation and informatics innovation.

To find out more about the Programme, visit www.sanger.ac.uk/programme/cancer-ageing-and-somatic-mutation/.

“We use high-throughput genomic and cellular methodologies to understand how somatic mutations accumulate in normal tissues and cancer, and how these mutations shape the behaviour of somatic cells. One of the most rewarding aspects of this work is the opportunity to work on some of the major medical challenges confronting society, with a blend of both basic and translational threads to our research.

The Cancer, Ageing and Somatic Mutation Programme is an exciting place to develop your career as a Faculty member with the support of our talented team, technologies, facilities and collaborations that enable our ground-breaking science, at scales not possible anywhere else.

We look forward to welcoming new Faculty members to the team, expanding our horizons and research interests of the Programme.”

Dr Peter Campbell
Head of Cancer, Ageing and Somatic Mutation, and Senior Group Leader
“Joining Sanger as a GL1 Faculty member has been an incredible opportunity to deliver my research interests at scale. The Sanger Institute in general and Cancer, Ageing and Somatic Mutation in particular offer a unique combination of almost unparalleled infrastructure, sequencing capacity and expertise, and most of all the opportunity to work hand in hand with some of the best minds in genomics to start and shape new fields of research. I cannot imagine a better place to have started my research group.”

Dr Inigo Martincorena, Group Leader

Support in Cancer, Ageing and Somatic Mutation

We have an established core operations infrastructure to support the research of the Programme. The Operational teams, led by the Head of Cancer, Ageing and Somatic Mutation Operations, are structured into three primary areas:

- Wet-lab core team
- Informatics team
- Administration team

These teams work collaboratively to deliver a backbone of operational support to the Cancer, Ageing and Somatic Mutation Programme Faculty, enabling them to focus on delivering their cutting-edge research.

The operations teams also provide a key interface with central Institute functions including the core Sanger pipelines within Scientific Operations and the Management Operations teams. The Administration team provides day-to-day administration including core and grant funding finance management, identifying third-party funding opportunities, and ensuring regulatory and legal compliance in collaboration with central Institute teams.

Faculty positions in Cancer, Ageing and Somatic Mutation

We are seeking an exceptional GL1 and GL2 scientist to join as Core Faculty members leading a research team in Cancer, Ageing and Somatic Mutation, and contributing to the Institute’s scientific portfolio. Positions carry a significant core package of salaries and support, which are backed by rewarding and flexible employment terms including excellent benefits and relocation support. Our exceptional core funding enables Faculty to focus their energy on science.

The Opportunity and Selection Criteria

Cancer, Ageing and Somatic Mutation seek Faculty with research interests in any (or a combination) of the following:

- Cancer genomics
- Somatic mutation analysis
- High-throughput model systems
- Computational biology
- Genome editing

Candidates will be considered across the GL1 and GL2 Faculty levels and in assessing the best qualified applicants, we will focus on scientific achievement, experience, leadership and personal suitability in line with our core behavioural competencies; collaboration, communication, leadership, integrity, results-driven, and innovation.

For an informal conversation about the positions, please contact Dr Peter Campbell via CASMFaculty@sanger.ac.uk.
The Cellular Genetics Programme is focused on cell-atlasing and plays a key role in the Human Cell Atlas international consortium. The Programme uses this approach to map cells in the human body, combining cutting-edge methodologies and computational approaches.

Over the next quinquennium, the Cellular Genetics Programme will continue to make major contributions to the Human Cell Atlas international consortium. We will push the boundaries of mapping tissues at scale, combining genomics and imaging technologies with new computational methods. We will integrate whole transcriptome single cell sequencing with spatial methods to compute 3D models of cells in tissue context. We will move beyond a static view of cells and tissues interrogating dynamic changes in cells, tissues and whole organs or organisms. We will gain fundamental insights into many areas of human biology, with translational applications to disease and regenerative medicine.

To find out more about the Programme, visit [www.sanger.ac.uk/programme/cellular-genetics/](http://www.sanger.ac.uk/programme/cellular-genetics/).

“In early 2016, I took on leadership of the then nascent Cellular Genetics Programme at the Wellcome Sanger Institute, and simultaneously co-founded the Human Cell Atlas international consortium. Currently, the Cellular Genetics Programme groups share a common interest single cell approaches, so called “cell atlas” technologies, to understand tissues and organs at the cellular level.

We synergise by combining cutting-edge techniques in both wet and dry lab and are applying these methodologies for further understanding of human health, development and disease. In my group, I am excited by using a multi-disciplinary approach to dissect immunity in the context of both lymphoid and non-lymphoid tissues. Going forwards, we are increasingly using cutting-edge spatial genomics and computational approaches to compare in vivo and in vitro systems, and to further our knowledge of human diseases. I am very proud of the work that my team does and look forward to welcoming a new Faculty member.”

Dr Sarah Teichmann, FMedSci FRS
Head of Cellular Genetics and Senior Group Leader

Joining Sanger as a GL1 Faculty member has given me a unique opportunity to deliver my research interests at scale, including the support to create a High Throughput Spatial Genomics initiative using cutting-edge technology. The collaboration across multiple teams and areas of the Institute provides both opportunity to explore new research avenues, as well as to be supported in delivering significant datasets.”

Dr Omer Bayraktar, Group Leader
Support in Cellular Genetics

We have an established core operations infrastructure to support the research of the Programme. The Operational teams, led by the Head of Cellular Genetics Operations, is structured into four primary areas:

- Cellular Genetics wet-lab core support
- Cellular Genetics Informatics team
- Research Administration and Project Management
- Scientific Writing and Illustration

These teams work collaboratively to deliver a backbone of operational support to the Cellular Genetics Programme Faculty, enabling them to focus on delivering their cutting-edge research.

The operations teams also provide a key interface with central Institute functions including the core Sanger pipelines within Scientific Operations and the Management Operations teams. The Administration team provides day-to-day administration including core and grant funding finance management, identifying third-party funding opportunities, and ensuring regulatory and legal compliance in collaboration with central Institute teams.

Faculty positions in Cellular Genetics

We are seeking an exceptional scientist across any level of the Faculty model to join as a Core Faculty member leading a research team in Cellular Genetics, and contributing to the Institute’s scientific portfolio. Positions carry a significant core package of salaries and support, which are backed by rewarding and flexible employment terms including excellent benefits and relocation support. Our exceptional core funding enables Faculty to focus their energy on science.

The Opportunity and Selection Criteria

Cellular Genetics seek a Faculty member with research interests in any (or a combination) of the following to deepen our understanding of human cell biology and tissue architecture:

- Single cell genomics
- Spatial genomics
- Computational biology
- Non-animal model systems (e.g. iPSC-derived cells, organoids, precision cut tissue cultures, perfusion systems)
- CRISPR editing of \textit{ex vivo} cells or model systems
- Candidates who want to apply single cell approaches to study specific diseases

Candidates will be considered across the three different Faculty levels and in assessing the best qualified applicants, we will focus on scientific achievement, experience, leadership and personal suitability in line with our core behavioural competencies; \textit{collaboration, communication, leadership, integrity, results-driven,} and \textit{innovation}. For an informal conversation about the position, please contact Dr Sarah Teichmann via \texttt{CellularGeneticsFaculty@sanger.ac.uk}. 
The collective and collaborative nature of our research as well as the flexibility and scalability of our science are two key themes that have been constant throughout the 18 years since I first came to Sanger as the most junior member of Faculty.

There are two things that I have personally valued most about being a Faculty member at Sanger. The first is the opportunity to undertake large-scale, long-term projects jointly with other Faculty members. These projects have been hugely enjoyable and achieved far more impact than I could have ever hoped to have achieved working in isolation. The second is the opportunity to reimagine one’s scientific objectives every five years, which gives the freedom to follow one’s ever-changing scientific interests and ambitions in a manner that is hard to achieve in a more traditional academic environment.

It is this unique environment that means that the most impactful work that a Sanger Faculty undertakes is almost never the idea that they came to the institute to pursue, but rather the ideas that they had once they have re-calibrated their ambition and had the opportunity to think afresh about how large-scale genomic data can revolutionise our understanding of biology.

I am very proud of the work that we do, the people that do it and the way that we do it.”

Dr Matthew Hurles
Head of Human Genetics and Senior Group Leader
We have an established operational infrastructure within the Human Genetics Programme to support the research of the Human Genetics Faculty. The Operational teams, led by the Head of Human Genetics Operations, is structured into two primary areas:

- Informatics team
- Administration team

These teams work collaboratively to deliver a backbone of operational support to the Human Genetics Programme Faculty, enabling them to focus on delivering their cutting-edge research.

The administration team includes PA support for all Faculty and assistance in managing complex large-scale projects.

The informatics team develops, maintains and operates informatics pipelines, data and software resources and analytical infrastructures, to support large-scale computational analyses.

The operations teams also provide a key interface with central Institute functions including the core Sanger pipelines within Scientific Operations and the Management Operations teams. The Administration team provides day-to-day administration including core and grant funding finance management, identifying third-party funding opportunities, and ensuring regulatory and legal compliance in collaboration with central Institute teams.

**Human Genetics Faculty Members**

**Head of Programme**  
Matthew Hurles

**Head of Programme Operations**  
Nicola Corton

**Group Leader 3**  
Nicole Soranzo  
Carl Anderson

**Group Leader 2**  
Leo Parts  
Gosia Trynka

**Group Leader 1**  
Emma Davenport  
Hilary Martin
Faculty positions in Human Genetics

The Wellcome Sanger Institute is seeking a GL3 Faculty member to join as a Core Faculty member leading a research team in Human Genetics, and contributing to the Institute’s scientific portfolio.

GL3 Faculty members embody the long term intellectual foundations of the Institute’s science, run internationally recognized, successful independent research groups and demonstrate significant internal and external leadership, and are normally supported with resources for six FTE plus consumables. They are expected to have a substantial record of research achievement and be scientific leaders at the forefront of their own fields. Within the Institute they lead and develop Sanger’s long-term research strategy and play a central role in the development of the five-year research plans.

Positions carry a significant core package of salaries and support, which are backed by rewarding and flexible employment terms including excellent benefits and relocation support. Our exceptional core funding enables Faculty to focus their energy on science.

The Opportunity and Selection Criteria

Human Genetics seeks a GL3 Faculty member with research interests in any (or a combination) of the following:

- Human genetics at the cellular level
- Blood and immune-mediated diseases
- Developmental disorders (including CNS disorders or other organ systems, e.g. congenital heart defects)

Human genetics at the cellular level could involve natural or engineered genetic variation, primary cells or cell lines. Examples of relevant research Programmes could include:

- Delineating the genetic determinants of cellular phenotypes
- Applying cellular genomic technologies to investigate genetic associations with common diseases, rare disorders or quantitative traits
- Using genome editing, or multiplexed assays of variant effect, to determine the functional impact of genetic variation

We strongly encourage potential applicants to interpret this description broadly.

We will focus on scientific achievement, experience, leadership and personal suitability in line with our core behavioural competencies: collaboration, communication, leadership, integrity, results-driven, and innovation.

For an informal conversation about the positions, please contact Dr Matthew Hurles via HumanGeneticsFaculty@sanger.ac.uk.
“Our GL3 Faculty are established, internationally leading scientists whose collective research portfolio embodies the Institute’s long term science strategy and who shape its future.”

Professor Sir Mike Stratton, FMedSci FRS
Director of the Wellcome Sanger Institute and Chief Executive Officer of the Wellcome Genome Campus

“Being a GL3 Faculty member at Sanger has given me the opportunity to develop a long-term research strategy using massive-scale genetics and genomics to answer some of the most pressing questions in complex disease biology. The huge scale and scope of our research mission, which includes both computational and wet lab research, is made possible by the significant scientific, informatics and administrative support we receive from the Institute’s core pipelines and facilities.

The platform that Sanger provides and the scientific discoveries that we have made have established my lab at forefront of the field, providing significant international leadership and career development opportunities for me and my team members.”

Carl Anderson,
Group Leader and Director of Graduate Studies
Parasites and Microbes

The Parasites and Microbes Programme (PaM) is built on a strong foundation of world-leading genomics of bacteria, viruses, parasites and their vectors, at the Wellcome Sanger Institute over the past 25 years. During this time we positioned ourselves as a global hub for pathogen and vector genome research and, more recently, as a world leader for metagenomics and culturing of complex microbial communities.

By working with research labs and public health bodies around the world we undertake prospective longitudinal analyses to better understand the evolutionary biology and transmission dynamics of individual parasites or microbial species as well as complex communities. Conducting studies over a timeframe of decades and at global scales, we assess historical patterns of disease and analyse how these patterns are likely to change in the future, driven by the use of drugs, vaccines, insecticides, or by other anthropogenic factors including population expansion, migration or the effects of climate change. Understanding these patterns will be increasingly vital to ensure the effectiveness of strategies for tackling infectious diseases and promoting health.

As well as the core support of a technology-driven, highly collaborative institute our cutting-edge science is built on a platform of established long-term national and international partnerships, developing open data tools and resources relevant to basic science and disease control as well as close links with local and international health organisations. In particular, we are committed to investing in the development of people to share our expertise, especially in low and middle income countries (LMICs). We achieve this through the exchange of personnel, long-term mentorship as well as structured learning and training programmes developed with our partners in Wellcome Connecting Science.

To find out more about the Programme, visit www.sanger.ac.uk/programme/parasites-and-microbes/.

“There is no better illustration of how genomic surveillance can inform public health decision making in close to real-time than COVID-19. Our work in this area, in the UK and Internationally, was enabled by our deep experience of using genomic approaches to study pathogen evolution. PaM is both well connected nationally and internationally and has a rich body of work and expertise to build upon.

I am truly excited to be leading the PaM Programme as we enter this exciting next phase. We recognize that diversity in our Faculty is key to ensuring we carry on conducting relevant and cutting-edge science that will benefit the broadest range of people. I look forward to building a diverse and inclusive team and welcoming the new Faculty members from all backgrounds, including those from historically excluded groups, to join us on the road ahead.”

Professor Nicholas Thomson
Head of Parasites and Microbes Programme and Group Leader
Global collaboration

Our work has a strong emphasis on low and middle income countries and working with partners around the world to generate large open datasets of longitudinal genomic and metagenomic data on microbes, parasites and vectors of global health importance. We have leading roles in establishing global data-sharing networks, with a strong emphasis on endemic diseases affecting the most impoverished, and a long-term commitment to research training and capacity building in these communities.

We benefit from close collaborative ties and strategic links with world-class scientists and clinicians through our:

- New Associate Faculty Programme in global pathogen surveillance and linked SEED Fellowship Programme designed to build on the close ties we have between Associate and Core Faculty
- International Faculty scheme enabling us to reinforce our networks and overseas research links
- A vastly experienced cohort of Honorary Faculty
- Links to leading research institutions, in all settings, as well as international bodies responsible for global public health

“Incredible support from Sanger has empowered me and my team from Thailand to study melioidosis, a grossly overlooked neglected tropical disease yet kills up to 40% of patients, at an unprecedented resolution and scale. This has made a huge difference in the way we study the disease and contributed to a strategic design of a vaccine and diagnostic tools planned to be implemented in the disease-endemic areas. I warmly encourage you to apply and look forward to welcoming you to a highly collaborative and empowering researching community.”

Dr Claire Chewapreecha
PaM International Fellow, based at MORU Mahidol Oxford Tropical Medicine Research Unit, Bangkok, Thailand

Support in Parasites and Microbes

We have a Programme support team that underpins our scientific strategy, which is structured into the following primary areas:

- Research support – day-to-day administrative support as well as pre- and post-award management of grants.
- Sample management and Governance - from partner management to compliance e.g. Nagoya protocol
- Laboratory support and management - at all levels of biological containment
- Informatics – from analytical support to sample to data processing pipelines
- Advanced Imaging facility - supporting sample processing and analysis for wide-field, confocal and electron microscopy
These teams work collaboratively to enable and help deliver the science done within Parasites and Microbes Programme Faculty and our partners overseas, allowing our Faculty to focus on delivering cutting-edge research.

The operations teams also provide a key interface with central Institute functions including the core Sanger pipelines within Scientific Operations and the Management Operations teams.

Faculty positions in Parasites and Microbes

PaM is seeking to recruit two exceptional scientists in any of the levels of our Faculty model to build a new research area and team within the Programme, and develop the Institute’s scientific portfolio. These Faculty positions carry a significant core package of salaries and support, which are backed by rewarding and flexible employment terms including excellent benefits and relocation support. Our exceptional core funding combined with our core facilities and long-term links into international networks enables Faculty to focus their energy on delivering impactful science at scale.

The Opportunity and Selection Criteria

The Parasites and Microbes Programme is seeking Faculty with research interests in the two following strategic areas.

Firstly, in using population genomics to characterise malaria biology and improve malaria control. A major area of interest is producing data on the spatiotemporal patterns of genome variation in parasite and/or mosquito populations, and analysing this with innovative statistical and computational methods to address fundamental questions concerning parasite transmission dynamics, mosquito population dynamics and the evolutionary dynamics of drug and insecticide resistance.

Secondly, in the area of respiratory metagenomics, with a focus on how interactions between viruses, bacteria, fungi and human hosts can combine to cause disease, and in defining the ecological concepts shaping microbiome assembly, stability and variability. Here we are also interested in data-driven discovery using advanced statistical and computational methods, as well as the incorporation of clinical and patient metadata to identify beneficial and detrimental lifestyles and clinical factors impacting disease susceptibility.

Candidates will be considered across the three different Faculty levels and in assessing the best qualified applicants, we will focus on strategic fit, scientific achievement, experience, leadership and personal suitability in line with our core behavioural competencies; collaboration, communication, leadership, integrity, results-driven, and innovation.

As a Programme we seek to increase diversity in our Faculty to create a more inclusive environment underpinned by our core values of teamwork and cooperation, and ultimately aimed at enriching our science.

For an informal conversation about the positions, please contact Professor Nicholas Thomson via PaMFaculty@sanger.ac.uk.
The Tree of Life Programme is a new initiative, taking its place in the global vanguard of genomic science. Our focus is to understand the structure and function of the biomes that support human society, at a time when those systems face acute strain. Using the latest long-read and long-range sequencing technologies, as well as algorithmic advances in assembly and curation, it is now feasible to sequence all life. The Darwin Tree of Life project and Earth Biogenome Project aim to do just that, their ambition only matched by the dedication of their teams. The data gathered across these and other projects will be used to investigate species diversity, species interactions and the evolution of genome structure – and all of it will be made openly available to the wider scientific community. Having launched in 2019, the Tree of Life Programme is now fully operational and has become one of the most exciting places to work in biodiversity genomics. We will also gain new insights into molecular mechanisms that underpin genetic associations with diseases and traits involving blood and immune cells, including both disease susceptibility and disease progression, to empower the development of new drugs and the implementation of effective stratified and preventative medicine.

Humanity stands at a crossroads, where climate change and environmental degradation threaten to cause the sixth great extinction. Understanding the interconnectedness of the health of human society and ecosystem health, we will deliver a groundbreaking Programme to sequence the diversity of eukaryotic life on Earth. Using decades of experience at the Wellcome Sanger Institute and radical new technologies, we will produce high-quality reference genomes and explore their evolution, their functioning, and their interactions with each other. We will analyse these data to understand life’s origins, conserve biodiversity and provide the underpinnings of a new biotechnology.

To find out more about the Programme, visit www.sanger.ac.uk/programme/tree-of-life/.

“The core of Tree of Life is now established at Sanger, and we are producing genome assemblies across life’s diversity at a scale and quality not previously achieved. The future is now ripe with opportunity: of new science that can be done, of new analyses at scales previously only dreamed of, of building momentum for biodiversity genomics globally, and of delving deeply into the tree to understand pattern and process in evolution. I am excited to expand our Programme Faculty with new colleagues who will build on our vision and take us in new directions.”

Professor Mark Blaxter, Head of Tree of Life and Senior Group Leader
Support in Tree of Life

We have an established core operations infrastructure to support the delivery of the far-reaching ambitions of the Programme. The Delivery and Operations teams, led by the Associate Director of Delivery and Operations, are structured into four primary areas:

- Production Genomics: responsible for high-throughput data generation, including assembly and curation for tens of thousands of reference genomes
- Enabling Platforms: responsible for building new software systems and data management
- Informatics Infrastructure: responsible for implementing cutting-edge informatics pipelines and managing Programme IT infrastructure
- Project Management and Operations: responsible for meeting the many compliance, admin and project management needs of our scientists

These teams work collaboratively to deliver a backbone of operational support to the Tree of Life Programme Faculty, as well as major national and international sequencing consortia, enabling them to focus on delivering their cutting-edge research.

The operations teams also provide a key interface with central Institute functions including the core Sanger pipelines within Scientific Operations and the Management Operations teams. The Project Management & Operations team provides day-to-day administration including core and grant funding finance management, identifying third-party funding opportunities, and ensuring regulatory and legal compliance in collaboration with central Institute teams.

Faculty positions in Tree of Life

The Wellcome Sanger Institute is seeking up to four exceptional scientists across all levels of its Faculty model, each joining as a Core Faculty member leading a research team in Tree of Life and contributing to the Institute’s scientific portfolio. Positions carry a significant core package of salaries and support, which are backed by rewarding and flexible employment terms including excellent benefits and relocation support. Our exceptional core funding enables the Faculty to focus their energy on science, supported by a rapidly growing team of dedicated scientists and science facilitators, and benefiting from the state-of-the-art facilities located in the beautiful grounds of the Wellcome Genome Campus.
Tree of Life seek Faculty with research interests in any (or a combination) of the following:

- biodiversity genomics requiring large scale data generation
- comparative genomics of symbiosis
- computational phylogenomics including phylogeny reconstruction across the Tree of Life

We are looking for leaders who can push the technical and scientific boundaries, building on a sequencing core that is scaling to sequence thousands of new genomes a year. Candidates will be considered across the three different Faculty levels and in assessing the best qualified applicants, we will focus on scientific achievement, experience, leadership and personal suitability in line with our core behavioural competencies: collaboration, communication, leadership, integrity, results-driven, and innovation.

For an informal conversation about the positions, please contact Professor Mark Blaxter via treeoflifefaculty@sanger.ac.uk.

“The journey over the past few years from a little seed of a staggering idea through to where we stand now, having collaboratively created a remarkable endeavour that is actively sequencing across all of biodiversity has been marvellous. We are only seeing the earliest hints of the Tree of Life genomes and there is infinite possibility in the science to come. I highly recommend applying to join us.”

Dr Mara Lawniczak, Senior Group Leader
How to apply to join our Faculty
Applications should be accompanied by:

- Curriculum vitae, a complete list of publications and details of three referees
- A two-page cover letter summarising
  - your scientific and leadership achievements to date
  - your contribution to the wider research community and society, you may wish to include diversity and inclusion initiatives and public engagement events
  - which Faculty level you wish to be considered for and why
- A three-page outline of future research plans indicating how these fit with the research areas, the chosen Programme, and the wider Institute. Please include a short abstract at the start of this document (no more than 250 words) summarising your plans

We understand that the global impact of COVID-19 and the lockdown period may have negatively impacted your research, as you may have had to adjust your working pattern, had reduced access to research facilities, and/or taken on additional responsibilities, such as childcare or caring for others. As part of our recruitment process we would like to better understand your experiences and how COVID-19 has impacted on your research progress and any research outputs, so that we can take this into consideration when we review your application. Please use the application form to tell us more.

Your applications should be made online via jobs.sanger.ac.uk.

Notable dates
The application deadlines and planned interview dates are as follows:

**Cancer, Ageing and Somatic Mutation, Cellular Genetics, Human Genetics**

- **Application deadline**: 31 October 2021
- **Planned interviews**: January/February 2022

**Parasites and Microbes**

- **Application deadline**: 30 November 2021
- **Planned interviews**: January/February 2022

**Tree of Life**
We encourage early applications and will review applications on a rolling recruitment basis.

- **GL2 and GL3**
  - **Two submission deadlines**
  - **Application deadlines**: 23 September 2021, 24 October 2021
  - **Planned interviews**: w/c 18 October 2021, w/c 22 November 2021

- **GL1**
  - **Application deadline**: 31 October 2021
  - **Planned interviews**: January/February 2022

Reasonable adjustments
We are committed to creating an environment where everyone can fulfill their potential and thrive. We welcome and encourage applications from all parts of the community. If you require reasonable adjustments during the recruitment process, please contact the recruitment team via recruit@sanger.ac.uk.