

Organisational Strategy 2024-34



Our mission

To apply and explore genomic technologies to advance understanding of biology and improve health.

Our 10-year vision

To be a trusted global leader in deciphering life and empowering society.

We believe that:

- Characterising biology exhaustively at the molecular level will be transformative for understanding of how life works.
- This understanding will, in turn, be transformative in delivering diverse societal benefits, from improved healthcare and economic growth to better stewardship of our planet's biome, and beyond.
- Open, democratised science is necessary to deliver societal impact and sustain trust in genomic science.
- Fully delivering on this potential requires a focused, unconventional organisational model that attracts the brightest and the best.

Our scientific objectives

Sanger's purpose will be focused on three scientific objectives where large-scale genomic data is essential for advancing fundamental knowledge, each of which will deliver opportunities for societal benefit:

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Disease genomics:

deciphering the molecular underpinnings of health and disease.



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Planetary genomics:

understanding planetary biology through genome sequences of diverse species.



Engineering genomics:

elucidating how DNA sequences encode biological functions.



Our Science Programmes

These are our current Scientific Programmes, they are dynamic and evolve over time, and we anticipate change in the next 10 years:

- Cancer, Ageing and Somatic
 Mutation: Understand the causes of
 and consequences of DNA mutations
 throughout the body and over the course
 of life.
- Cellular Genetics: Define the cell types in the human body by studying expression of genes in single cells.
- Generative and Synthetic Genomics:
 Predict and programme molecular biology
 by synthesising and engineering genomes.
- Human Genetics: Discover the mutated genes that cause rare and common diseases.
- Parasites and Microbes: Understand the evolution of endemic and epidemic infectious diseases.
- Tree of Life: Sequence the genomes of all species of life on Earth (starting with the UK and Ireland).

Sanger in 2034

- Will be world-renowned for trailblazing the integration of large-scale genomics and AI across three areas of genomics: disease genomics, planetary genomics and engineering genomics.
- Will be recognised as a trustworthy, global institution at the cutting edge of establishing equitable collaborations worldwide and being innovative in the translation and democratisation of its science.
- Will be generating even more scientific outputs and bringing in a greater funding.
- Will be occupying newly refurbished or rebuilt buildings that support a porous and collaborative working culture and meet ambitious sustainability commitments.



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New high-impact knowledge which is widely disseminated. 3

Translation of our science for societal benefit, encompassing clinical, commercial and environmental opportunities.



A more productive global life sciences ecosystem empowered by foundational data resources, innovative tools and highly-trained genomics scientists.



Focusing our science strategy on opportunity areas where our competitive advantages enable us to have unique

impact.



focusing on the capabilities needed to deliver on these scientific opportunity areas.



Ensuring sustained funding that is commensurate with our scientific ambitions.



Developing our culture, by embedding a consistent

set of values and empowering a diverse workforce.

Key elements of change

- **Expanding Sanger's scientific scope** to encompass 'engineering genomics' through understanding how DNA sequences encode biological functions.
- Amplifying Sanger's scientific impact by expanding our Associate Faculty, developing more strategic partnerships and enabling the wider life sciences ecosystem.
- Extensive reconfiguration of our core capabilities in data generation, data analysis and the democratisation of our science to ensure tighter alignment with scientific priorities.
- Retaining the Programmatic structure of Sanger science but embracing increased synergies between the different expertise within the Science Programmes.
- 5 Driving the cultural change necessary to be successful in our more diverse, outward-facing mission.
- 6 Refreshing and deepening our relationship with Wellcome.