NHS
Genomic Medicine Service

Careers in Genomics & Healthcare Science
A quick guide for students

What is genomics?

Genomics is the study of a person's DNA to understand health, disease, and how best to diagnose and treat patients. In the NHS, genomics is used in:

- Rare disease diagnosis
- Cancer care
- Pharmacogenomics (how drugs work in different people)
- Screening and prevention

Genomics professionals work at the intersection of science, technology, and patient care.

How can students get into a career in genomics/healthcare science?

For further information about working and training in genomics, search for:

- NHS Scientist Training Programme
- NHS genomics webinars and open days
- NHS England Genomics Education Programme
- Academy for Healthcare Science Clinical Genetics Society
- UCAS

Main NHS entry routes

NHS Scientist Training Programme (STP)
- Genomics
- Bioinformatics
- Genomic counselling

Biomedical Science / Healthcare Science routes
- Accredited degrees + NHS laboratory training
- Progression into genomics specialisms

Bioinformatics routes
- Degrees or MScs in bioinformatics, computing, or data science
- Entry into clinical bioinformatics training pathways

Key genomics and healthcare science roles

👩‍🔬 Clinical Scientist
- Senior scientific role with clinical responsibility
- Interprets genomic results for patients

🧬 Genetic Technologist
- Lab work (DNA extraction, sequencing)
- Quality control and sample processing

🔬 Biomedical Scientist
- Laboratory testing
- Diagnostic sample analysis

👨‍💻 Clinical Bioinformatician
- Analyses large genomic datasets
- Develops and runs computational pipelines

🥼 Genomic scientist
- Process a variety of samples from patients
- Interpret the results from testing

Where do genomics professionals work?

Most NHS genomics roles are based in:

- NHS Genomic Laboratory Hubs (GLHs)
- Hospitals and specialist laboratories
- Data and bioinformatics teams
- Clinical services working directly with patients

All are part of the NHS.

How can students get experience?

Students can:

- Attend NHS careers events and open days
- Apply for laboratory placements or summer studentships
- Join science clubs, coding clubs, or online genomics courses
- Follow NHS genomics teams on social media and LinkedIn

Why choose a career in genomics?

🧬 Work at the cutting edge of medicine
❤️ Make a real difference to patients' lives
📈 Strong career progression and job security
🌍 Be part of a world-leading genomics service

Key organisations to follow

- NHS Genomic Medicine Service
- National School of Healthcare Science
- Genomics Education Programme (NHSE)

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