

Genomics Education Programme



**Training existing
and future
NHS healthcare
professionals**

**Supporting and
enhancing the
100,000 Genomes
Project**

**Bringing better
care and lasting
benefits for
patients**

**Developing people
for health and
healthcare**

www.hee.nhs.uk

Welcome to the Genomics Education Programme

What is the GEP?

Health Education England's Genomics Education Programme (GEP) is the NHS initiative to ensure its workforce has the knowledge, skills and experience necessary to remain a world leader in genomic medicine, with HEE one of the five key partners involved in the 100,000 Genomes Project (bit.ly/Genomes100k).

To help achieve this, the GEP is adopting a network approach, working in conjunction with the education and training leads of both the 13 NHS Genomic Medicine Centres and the 30+ Genomics England Clinical Interpretation Partnership (GeCIP) domains.

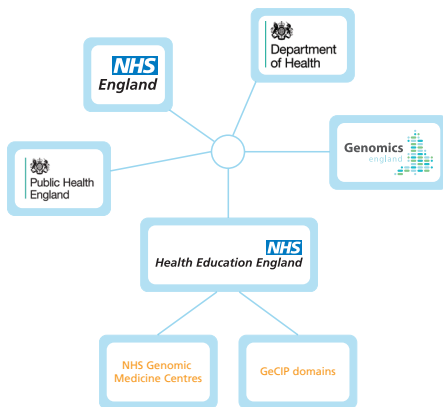
How is the GEP transforming the workforce?

To support workforce transformation across the health service, the GEP has developed educational resources and funded courses for the NHS workforce.

Our Master's in Genomic Medicine (bit.ly/GenomicsMSc) is a multidisciplinary and multi-professional qualification in genomics that can be applied to both clinical practice and medical research.

It is offered through a nationwide network of ten universities and is available as a one-year full-time or two-year part-time Master's, as well as Postgraduate Diploma and Certificate. Individual modules can also be taken standalone as part of CPPD (continuing personal and professional development). The GEP is funding more than 500 Master's places together with 1,000 individual modules for CPPD across all NHS professions.

In addition, a large part of the GEP's role is the development of scientific and leadership expertise at the highest level (Higher Specialist Scientist Training), to support the introduction of genomic technologies across the healthcare system. This includes the support of a number of multi-professional clinical research fellowships and doctoral posts in genomics and bioinformatics.



Master's in Genomic Medicine: core modules

- Introduction to human genetics and genomics
- Omics technologies and their application
- Genomics of common and rare inherited disease
- Molecular pathology of cancer and application in diagnosis, screening and treatment
- Pharmacogenomics and stratified healthcare
- Application of genomics in infectious disease
- Bioinformatics interpretation
- Research project

Master's optional modules

- Ethical, legal and social issues in applied genomics
- Counselling skills for genomics
- Economic models and human genomics
- Workplace-based learning in genomic medicine
- Professional and research skills
- Advanced bioinformatics

In what ways can NHS staff learn through the programme?

The GEP is developing a range of educational resources tailored to specific needs in the workforce, for professionals to access when and where they are needed. These include:



Short online courses

Engaging and interactive courses for continuing professional development



Training tools

Digital training to directly support the 100,000 Genomes Project



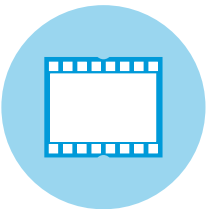
'Just-in-time' resources

Bitesize information on genomics for busy health professionals



Workshops and events

Seminars and events to raise awareness of genomics in healthcare



Videos, images and animations

Informative and educational multimedia for learning and teaching



twitter.com/genomicsedu

Daily updates and tailored content to more than 4,000 followers

How can I engage with genomics today?

The GEP has developed a wide range of education and training resources for health professionals available on our website: www.genomiceducation.hee.nhs.uk



100,000 Genomes Project: Preparing for the Consent Conversation

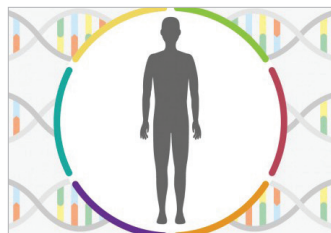
In our comprehensive online course, learn how to navigate the key steps of the 100,000 Genomes Project's consent process, what to consider when preparing to talk to potential participants, and how to address their questions and concerns.

bit.ly/100kconsent

Supporting patients and families with a rare disease

In our two short films we tell the story of Lewis, who has a rare disease, and the quest to find a diagnosis. The films illustrate how health professionals have a leading role to play and how developments in genomic medicine offer hope for many in a similar position.

bit.ly/RDsupport



Introduction to Genomics

This introductory course outlines the fundamentals of genomics and its significance for healthcare now and in the future. It shows how, through new scientific discoveries, we can examine the whole of a person's DNA – their genome – and discover its growing importance for healthcare.

bit.ly/Intro2Genomics

Introducing Genomics in Healthcare

Our informative and inspiring film, presented by science writer and broadcaster Vivienne Parry OBE, looks at the impact the genomics revolution will have in the diagnosis and treatment of health conditions, and the benefits for the healthcare service, clinicians and their patients.

bit.ly/Genomics4Health



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