

## Gateway to Pharmacogenomics for Pharmacy Staff

If you are a registered pharmacist or pharmacy technician, you may be able to expand your knowledge and experience to include pharmacogenomics by completing additional training in genetics, pharmacogenomics and stratified medicine.

### What is Pharmacogenomics?

Pharmacogenomics is the study of how an individual's genetic make-up affects their response to medicines. This may be due to natural variation in the way the body handles medicines, or natural variation in expression of a drug target. In countries that have existing pharmacogenomics services, pharmacy staff play a prominent role in providing advice and guidance on medicines use to clinicians, and counselling and support to patients.

More information about Pharmacogenomics and its' use in the NHS:

- Genomic Education Program: [Pharmacogenomics: a new normal for the NHS?](#)
- Report from the Royal College of Physicians and British Pharmacological Society: [Personalised prescribing](#)

### Why undertake further training in genetics?

Genetic testing is increasingly being used to guide patient care in many areas of medicine, yet few healthcare professionals are trained to understand genetic test results and explain pharmacogenetic information to patients and families. It is increasingly being used to guide medicines optimisation and medicines management, requiring careful governance and understanding of the evidence base. We anticipate that the demand for healthcare professionals who are genetically literate will increase due to initiatives such as the [100,000 Genomes Project](#), the NHS England [Personalised Medicine Agenda](#), and the launch of the [NHS Genomic Medicine Service](#).

### The Cambridge Gateway to Pharmacogenomics for Pharmacy Staff

The Cambridge Genomic Medicine Programme is a collaboration between Cambridge University Hospitals, the Wellcome Trust Sanger Institute (WTSI), the EMBL-European Bioinformatics Institute (EMBL-EBI), Wellcome Genome Campus Advanced Courses and Scientific Conferences, and the Institute of Continuing Education at the University of Cambridge. The Programme offers suitable training opportunities in medical genetics with a focus on pharmacogenomics in order to support expert practice development within the pharmacy profession. The Programme may be of particular interest to pharmacy staff in educational, clinical or commissioning roles.

The specific training, described as a "Gateway to Pharmacogenomics" includes:

- A full-time week of in-person teaching in Human Genetics and Genomics, followed by the completion of an assessed assignment, accredited through the Institute of Continuing Education at the University of Cambridge. (15 credits)

- A full-time week of in-person training in pharmacogenomics and stratified medicine, followed by the completion of an assessed assignment, accredited through the Institute of Continuing Education at the University of Cambridge. (15 credits)
- Provision of resources and supervision to facilitate guided-learning

*Funding for these modules is available from Health Education England, HEE (via the University) for NHS staff for the two modules, subject to availability. For further details about the Gateway to Pharmacogenetics study package and HEE funding please see the Institute of Continuing Education, University of Cambridge modular study webpage [here](#). Should you require further information please email the course team at: [genomics@ice.cam.ac.uk](mailto:genomics@ice.cam.ac.uk)*

#### Links to professional organisations

- The British Society for Genetic Medicine <http://www.bsgm.org.uk/>
- European Board of Medical Genetics <https://www.eshg.org/408.0.html>