# Geneticist

Geneticists research the inherited traits of humans, animals, plants, and microorganisms. They can use special methods to modify genetic material. They are sometimes called molecular geneticists or clinical scientists.

## The Work

You could be:

- locating and researching individual genes, to identify which can cause certain diseases and conditions
- identifying and possibly helping to treat genetic disorders in humans or animals
- using tiny amounts of DNA to identify archaeological remains and help reconstruct the past
- developing new methods of genetic engineering, ranging from producing fruits which last longer, to cloning animals
- modifying genes to develop ways of increasing the production of crops or animals
- helping to control pollution by developing microorganisms called 'biosensors'
- setting up and carrying out experiments and investigations, collecting data, analysing it and making recommendations based on the results
- working in a team of scientists and other staff, perhaps leading and planning projects.

## Pay

The figures below are only a guide. Actual pay rates may vary, depending on:

- where you work
- the size of the company or organisation you work for
- the demand for the job.

The starting salaries for new genetics graduates tend to be around £21,000 a year. Well qualified and experienced geneticists can earn more than £50,000 a year.

Pre-registration trainee clinical scientists working in the NHS start on Band 6, £41,608 to £50,702 a year, and registered clinical scientists are on Band 7, £50,861 to £59,159 a year. Principal clinical scientists are on Band 8a, £62,681 to £67,665 a year and Band 8b, £74,003 to £79,164 a year.

You could also work as a specialist biomedical scientist within the NHS on Band 6, £41,608 to £50,702 a year.

The current pay scales are from April 2025.

Salaries for research posts at universities range from around £30,000 to £50,000 a year.

## Conditions

- Depending on your job, you might work in a hospital, industrial or academic laboratory, an office or a classroom.

- You would normally work regular hours but might have to work evenings or weekends.
- You might travel to conferences.
- You may need to wear protective clothing such as a white coat, a mask or gloves.

## Getting In

- You normally need a degree (SCQF Level 9) in genetics or a related subject with strong genetics content such as biology, applied biology, biochemistry or molecular biology. Many genetics degree courses are combined with another subject. For entry you usually need 4-5 Highers, normally including at least 2 from Maths, Biology, Chemistry and Physics. Biology and Chemistry are often preferred. You also need Maths, English and a science subject at National 5.
- A small number of HNC (SCQF Level 7) and HND (Level 8) courses ask for 1-3 Highers and may offer a progression route to a degree course.
- To train as a clinical scientist you would need an Honours degree (SCQF Level 10) or above in a pure or applied science subject specialising in a relevant subject to be eligible for the NHS Scientist Training Programme (STP).
- Most entrants, particularly to research jobs, also have a specialist postgraduate qualification in genetics.
- In NHS Scotland the job title used is clinical scientist and in order to practise in the UK as a clinical scientist you need to be registered with the Health and Care Professions Council (HCPC).

You could do research and clinical work in hospitals or universities. Agricultural, pharmaceutical and biotechnology industries employ researchers and technicians as well as geneticists who work in management, marketing, sales and public relations. Government departments employ staff with knowledge of genetics to develop science policies and give advice.

## What Does It Take

You need to be:

- practical, logical and methodical
- patient and willing to persevere
- accurate and careful when carrying out experiments and recording results
- observant
- able to analyse and interpret complex data
- able to develop ideas based on the results of your research
- able to produce clear and precise scientific reports.

You should have:

- an enquiring mind
- excellent analytical skills
- good problem solving skills
- an eye for detail
- IT and statistical skills.

## Training

- To become fully qualified and able to register with the Health and Care Professions Council (HCPC), you complete three years of training.
- This is either the three-year Scientist Training Programme (STP), overseen by the National School of Healthcare Science (NSHCS), or an STP equivalent.
- All training methods combine various clinical placements with academic study in a specialist area and usually leads to an MSc or specialist postgraduate diploma and registration with the HCPC.
- Vacancies are usually advertised on the NHS Scotland Recruitment website.
- In industrial jobs, initial training is on the job. You then take further professional in-service training.

## Getting On

- You may need to take postgraduate and professional qualifications in order to get on.
- Other opportunities may be available for geneticists in a wide range of settings from pharmaceuticals and horticulture to food, biotechnology and environmental companies as well as research and scientific analysis for institutes, government agencies, laboratories and universities.
- With work experience and further skills, you may be able to move on to become a laboratory supervisor or manager.

## Contacts

**British Society for Genetic Medicine**
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**Genetics Society**
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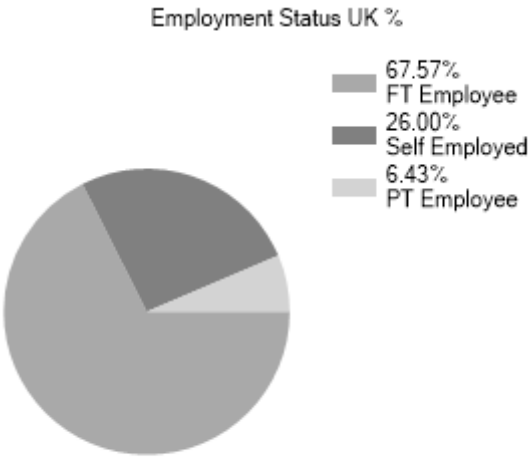
## Statistics




**Past Unemployment - Scotland**

No Claimant statistics available for Scotland.

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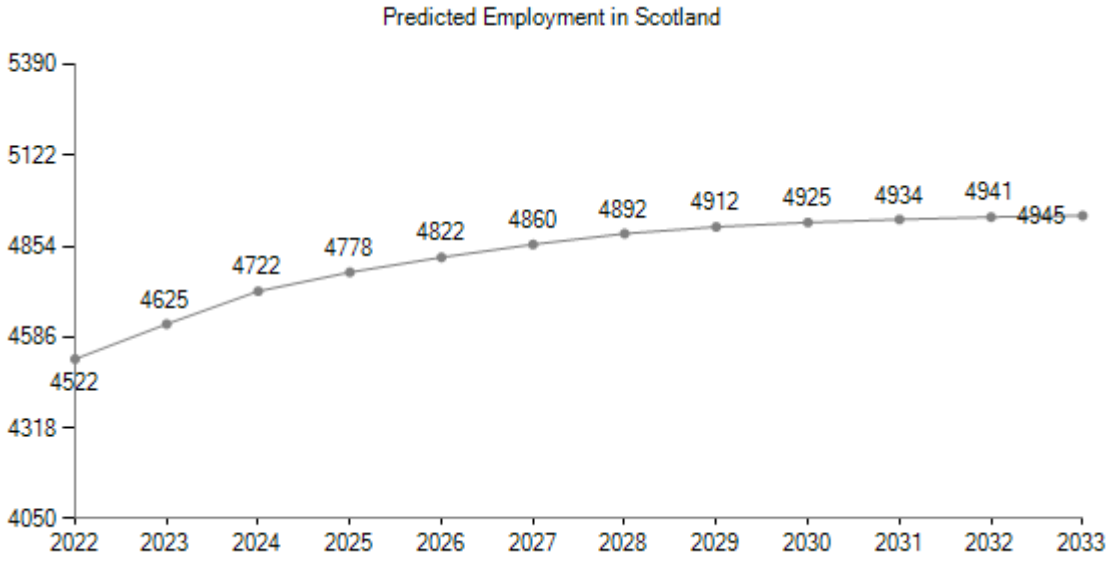


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