



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.

What does the job involve?

- 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.

Routes and choices while at school:

You will need to try to get at least two or more GCSEs at grades 9 to 4 (A* to C), or equivalent qualifications. These should include English, maths and science. Other relevant subjects include Biology, chemistry and IT.



Skills You'll need:

- knowledge of biology
- excellent verbal communication skills
- science skills
- to be thorough and pay attention to detail
- thinking and reasoning skills
- maths knowledge
- analytical thinking skills
- the ability to read English
- to be able to use a computer and the main software packages competently



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How to get into this role:

You can get into this job through:

- a university course

You'll need a life science degree or a postgraduate master's qualification in genetics, or a related subject which covers genetics.

Degrees and postgraduate courses include:

- genetics
- biology
- biochemistry
- molecular biology
- life sciences
- biological science

It's useful to gain experience of laboratory and research techniques during your degree through internships or year placements.

If you want to work in the NHS you can apply to the [Scientist Training Programme \(STP\)](#) after your degree where you can specialise in genomics work.

Further information

Career tips

You can find out more about careers in genetics from:

- [The Genetics Society](#)
- [The British Society for Genetic Medicine](#)



Career path and progression

As a research geneticist, with experience you may be able to work your way up to laboratory supervisor or clinical study manager. Lecturing in a university or teaching may also be an option. You could move into scientific sales or, with further studies, qualify as a genetic counsellor.

Rates of Pay

The starting salaries for new genetics graduates tend to be around £18,000 to £20,000. Well qualified and experienced geneticists can earn more than £47,000 a year.

Pre-registration trainee clinical scientists working in the NHS start on Band 6, £37,831 to £46,100 a year, and registered clinical scientists are on Band 7, £46,244 to £53,789 a year. Principal clinical scientists are on Band 8a, £56,992 to £61,522 a year and Band 8b, £67,285 to £71,978 a year