Biochemist

Biochemists study the way living organisms work. They study the chemistry of living cells at all levels, from viruses and bacteria to plants, animals and human beings. If working in the area of human health, they are also called clinical biochemists or clinical scientists.

The Work

You could be:

- researching DNA and the ways in which it can be modified to benefit people
- researching the effects of drugs, hormones and other medical substances on the human body
- researching the effects of nutrition, or pollution, on the body chemistry of plants or animals
- testing and analysing samples, such as blood, to diagnose disease
- developing new products and checking the production process for safety and quality
- setting up and carrying out complex experiments, collecting and analysing specialist data
- writing reports and making recommendations based on the results of experiments and observations
- developing new ideas and new products for medicine or agriculture such as pest resistant and high yield crops
- working as part of 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.

Registered clinical scientists (biochemistry) in the NHS are generally on Agenda for Change Band 7, £50,861 to £59,159 a year. Principal clinical biochemists are on Band 8a, £62,681 to £67,665 a year and Band 8b, £74,003 to £79,164 a year. Pre-registration trainees are on Band 6, £41,608 to £50,702 a year.

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

The current pay scales are from April 2025.

Pay rates in the private sector vary.

Salaries for research posts at universities range from around £30,000 up to £45,000 a year.

Conditions

You would probably work in a laboratory, which could be in:

- a hospital
- a factory making pharmaceutical or agricultural products, or processing food or drink
- a college, university or research institute.

In all cases:

- you would normally work regular hours but you might have to work some evenings and weekends
- you may have to travel to conferences
- you may work with hazardous substances, such as bacteria that can cause disease
- there may sometimes be a risk of infection but employers train staff to reduce this
- you may need to wear protective clothing such as a lab coat, a face mask or gloves
- you may have to sit or stand at a bench or equipment for long periods.

Getting In

- You usually need an Honours degree (SCQF Level 10) in biochemistry but other degrees in biological or chemical sciences may be accepted.
- For entry to a degree, you normally need 4-5 Highers, including at least 2 from Maths, Biology, Chemistry and Physics. Biology or Chemistry is often necessary.
- To train as a clinical biochemist you would need a 2:1 Honours degree or above in a pure or applied science subject specialising in biochemistry to be eligible for the NHS Scientist Training Programme (STP).
- Some entrants have a specialist postgraduate qualification (SCQF Level 11) in biochemistry. This is essential for research posts in higher education.
- In order to practise in the UK as a clinical scientist you need to be registered with the Health and Care Professions Council (HCPC). (See the **Training** section below).
- You may also be required to be registered with the Royal College of Pathologists.

Adverts for posts for clinical biochemists in Scotland usually appear in professional body journals and in the New Scientist. You will also find posts advertised on the NHS Scotland Recruitment website.

What Does It Take

You need to be:

- practical, logical and methodical
- good at problem solving
- observant
- patient and willing to persevere
- accurate and careful in recording results
- able to develop ideas based on the results of investigations
- able to write clear and precise scientific reports
- able to work as part of a team and on your own.

You should have:

- excellent communication skills
- excellent analytical skills
- an enquiring mind
- good hand-eye co-ordination for using complex equipment
- good IT and statistical skills.

Training

- Training is normally on the job. It includes new laboratory methods, updating specialist areas of work and health and safety regulations.
- Some employers may support further study for postgraduate qualifications while working.
- 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 and NHS Education for Scotland websites.
- Training may include postgraduate study for an MSc or PhD.

Getting On

- You will need postgraduate and professional qualifications to get on.
- If you work as a clinical biochemist in the National Health Service (NHS) you must register with the HCPC (see above).
- If you work in pharmaceuticals, brewing, food manufacturing or agricultural research, you could specialise in one area of work.
- You might move on to become a laboratory manager.
- You might move on to a job in senior management or marketing, possibly in a science-based industry.
- Being a member of a professional body, such as the Biochemical Society or the Royal College of Pathologists, can be useful.

Contacts

Association for Laboratory Medicine
Website: www.acb.org.uk

Association of the British Pharmaceutical Industry (ABPI)
Tel: 0207 9303477
Website: www.abpi.org.uk
X: @ABPI_UK

Biochemical Society
Tel: 020 3880 2793
Website: www.biochemistry.org

X: @BiochemSoc
Facebook: www.facebook.com/biochemicalsociety

Health and Care Professions Council (HCPC)
Tel: 0300 500 6184
Email: education@hcpc-uk.org
Website: www.hcpc-uk.org
X: @The_HCPC
Facebook: www.facebook.com/hcpcuk

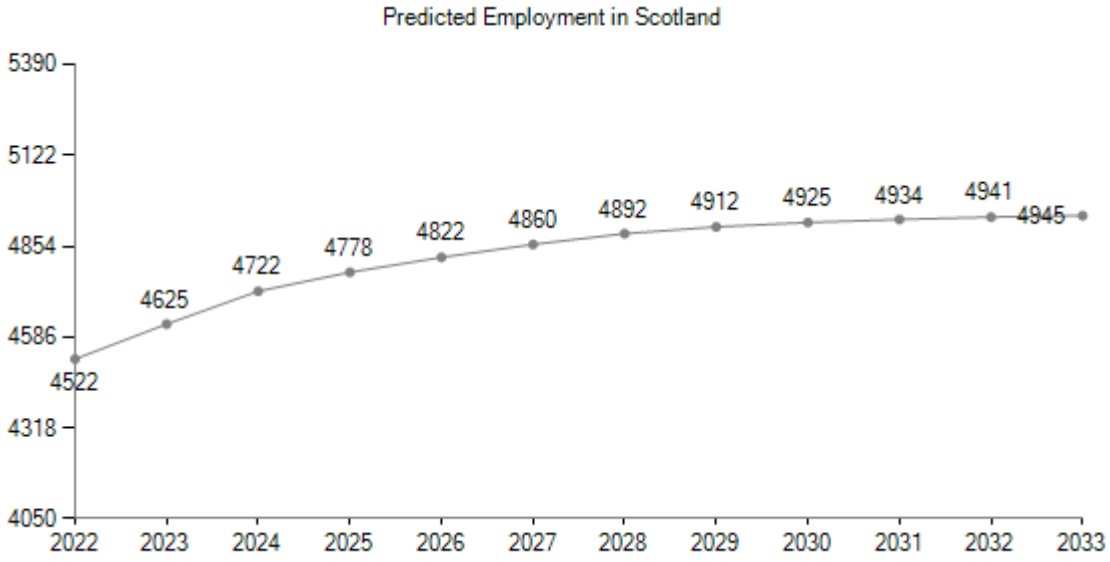
Royal College of Pathologists
Tel: 020 7451 6700
Email: info@rcpath.org
Website: www.rcpath.org
X: @RCPath

Statistics

Past Unemployment - Scotland

No Claimant statistics available for Scotland.

LMI data powered by LMI for All



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