

## Pharmacologist

Pharmacologists study how drugs and chemicals work, and the effects they have on animals and people. They also research the development of new and existing drugs. They may specialise in areas such as toxicology or neuro, cardio or veterinary pharmacology.

### The Work

You might:

- study how effective drugs are in preventing and treating disease and infection
- work out why a particular drug has the effect it does and develop new drugs to fight disease and infection
- make sure drugs are absorbed and then eliminated from the body without causing side effects
- use computers and complex equipment to carry out tests and analyse results
- test drugs in the laboratory and on animals, then do clinical trials to work out how effective they are on people
- assess the effects of harmful drugs and detect and identify poisons present in animals or people
- design and run experiments, collect and analyse data, write reports and make recommendations based on the results
- work in a team of scientists and other staff, perhaps leading and planning projects
- check the quality of manufactured products to make sure they are safe and effective.

### 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.

Pay rates in the private sector vary but could range from around £20,000 to £25,000 a year up to £50,000 for very experienced scientists. Pharmacologists with a PhD are likely to earn more than those without one.

### Conditions

- You would probably work in a laboratory. This could be in a hospital, a pharmaceutical factory or a university or research institute.
- Your hours would be regular but you might have to work some evenings and weekends.
- You may have to travel to international conferences.
- You would wear protective clothing such as a lab coat, a mask or gloves.
- In some work, there may be a risk of infection, but employers train staff to avoid this.

### Getting In

- You usually need a degree in pharmacology. Other degrees such as biological sciences, biomedical science,

biochemistry, immunology, medicinal chemistry, pharmaceutical science or pharmacy may also be accepted.

- For entry to a degree you need 4-5 Highers, usually including at least 2 from Maths, Biology, Chemistry and Physics. Biology and Chemistry may be preferred. You also need English, Maths and a science subject at National 5.
- Some entrants have a specialist postgraduate qualification in pharmacology. This is essential for research posts.
- Taking unpaid work or an industrial placement while at university will improve your chances of gaining employment.

You could work in government departments (including the Medical Research Council), pharmaceutical companies, hospitals or universities. The National Health Service (NHS) also employ pharmacologists to work on clinical trials.

## What Does It Take

You need to be:

- practical, logical and methodical
- observant
- patient and willing to persevere
- able to use your initiative and develop new ideas
- accurate when carrying out experiments and recording results
- able to work on your own and as part of a team.

You should have:

- a strong interest in science
- good IT and analytical skills for processing and analysing data
- an enquiring mind
- good problem solving ability
- the ability to write clear and precise scientific reports.

## Training

- Training is on the job in technical methods needed to do laboratory work.
- You can also take short courses in interpreting data, writing reports and managing projects.

## Getting On

- You could specialise in a particular area of pharmacology, such as neuro or veterinary.
- With experience you may move on to become a laboratory manager or a general manager.
- Taking postgraduate and professional qualifications could help you advance your career.
- Becoming a member of a professional body, such as the British Pharmacological Society, may help to further your career.
- You might go into education.

## More Information

The Future Morph website [www.futuremorph.org](http://www.futuremorph.org) shows you some of the amazing and unexpected places that studying science, technology, engineering and mathematics can take you.

## Contacts

### Association of the British Pharmaceutical Industry (ABPI)

Tel: 0207 9303477

Website: [www.abpi.org.uk](http://www.abpi.org.uk)

Twitter: @ABPI\_UK

### British Pharmacological Society

Tel: 020 7239 0171

Website: [www.bps.ac.uk](http://www.bps.ac.uk)

Twitter: @BritPharmSoc

Facebook: [www.facebook.com/britpharmsoc](http://www.facebook.com/britpharmsoc)

### Medical Research Council (MRC)

Tel: 01793 416200

Email: [corporate@mrc.ukri.org](mailto:corporate@mrc.ukri.org)

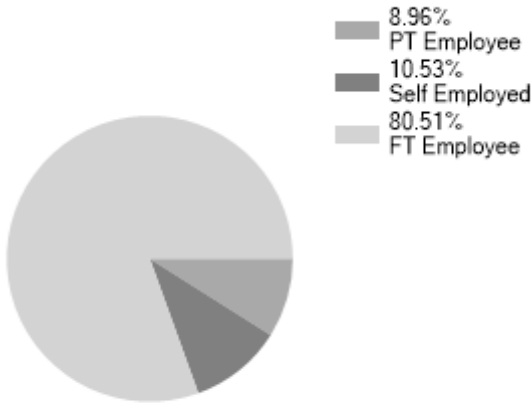
Website: [mrc.ukri.org](http://mrc.ukri.org)

Twitter: @The\_MRC

Facebook: [www.facebook.com/mrccomms](http://www.facebook.com/mrccomms)

Statistics

Employment Status UK %

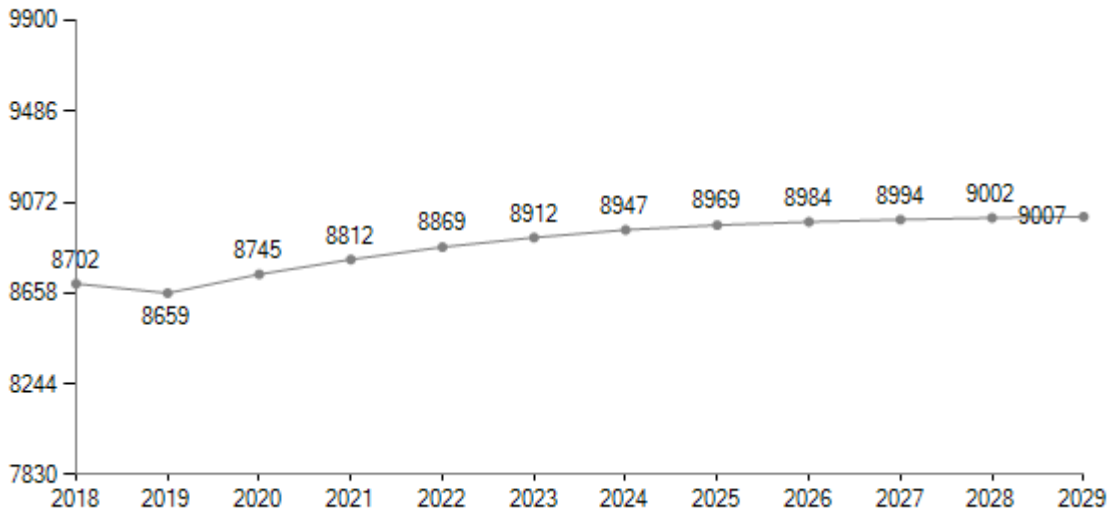


Past Unemployment - Scotland

No statistics available for Scotland.

LMI data powered by [LMI for All](#)

Predicted Employment in Scotland



LMI data powered by [EMSI UK](#)