

# Clinical biochemistry

Pathology (the study of disease) includes a number of specialisms, including clinical biochemistry, in which you could help diagnose and manage disease.

In clinical biochemistry, you'll help to diagnose and manage disease through the analysis of blood, urine and other body fluids.

healthcare-science-female-with-test-tubes

You'll advise clinicians and GPs on the appropriate use of tests, the interpretation of results, and the follow up investigations that may be required

## Working life

In clinical biochemistry, working as a clinical scientist, you'll help to diagnose and manage disease through the analysis of blood, urine and other body fluids. You'll do this by producing and validating the results of chemical and biochemical analyses.

You'll advise clinicians and GPs on the appropriate use of tests, the interpretation of results, and the follow up investigations that may be required. You will usually be based in a hospital clinical biochemistry/chemical pathology laboratory. Increasingly, you'll work outside the laboratory to support the investigation of patients at the point of care, including in clinics and operating theatres.

The typical work activities that you might undertake include:

- planning and organising work in clinical biochemistry laboratories
- carrying out complex analyses on specimens of body fluids and tissues
- assuring the quality of clinical biochemistry investigations
- auditing the diagnostic and clinical use and performance of investigations
- developing new and existing tests, often automated and computer assisted but sometimes requiring considerable manual expertise
- liaising with clinical and other healthcare staff, often in a multidisciplinary team setting
- some patient contact
- writing reports
- submitting funding bids and conducting research with clinicians

## Who will I work with?

You will work in a team that includes pathologists <sup>[1]</sup> (medical doctors specialising in the study of disease), biomedical scientists <sup>[2]</sup>, other healthcare science staff working in the life sciences <sup>[3]</sup> and other clinicians, including GPs <sup>[4]</sup>.

## Want to learn more?

- Find out more about the entry requirements, skills and interests required to enter a career in clinical biochemistry <sup>[5]</sup>
- Find out more about the training you'll receive for a career in clinical biochemistry <sup>[6]</sup>

### • Pay and conditions

Most jobs in the NHS are covered by the Agenda for Change (AfC) <sup>[7]</sup> pay scales. This pay system covers all staff except doctors, dentists and the most senior managers. In clinical biochemistry, your salary will typically be between AfC <sup>[8]</sup> bands 6 and 9, depending on your role and level of responsibility. Trainee clinical scientists train at band 6 level, and qualified clinical scientists are generally appointed at band 7. With experience and further qualifications, including Higher Specialist Scientist Training <sup>[9]</sup>, you could apply for posts up to band 9.

Staff will usually work a standard 37.5 hours per week. They may work a shift pattern.

Terms and conditions of service can vary for employers outside the NHS.

### • Where the role can lead

With further training, experience or both, you may be able to develop your career further and apply for vacancies in areas such as further specialisation, management, research, or teaching.

Clinical scientists often work at the forefront of research and innovation so that patients are continually receiving the very best healthcare. In clinical biochemistry, clinical scientists are involved in wide-ranging research, including the causes of metabolic <sup>[10]</sup> disease, the identification of new molecular and protein biomarkers, the development of new methods and the design and delivery of innovative models of service provision. Increasingly, clinical biochemistry is being applied to keeping people healthy and preventing disease and enabling individuals with chronic diseases to take responsibility for self-monitoring their condition.

### • Job market and vacancies

## Job market information

In November 2018, there were 6,123 clinical scientists registered with the [Health and Care Professions Council](#) <sup>[11]</sup>.

The [NHS Scientist Training Programme \(STP\)](#) <sup>[12]</sup> and [Higher Specialist Scientist Training \(HSST\)](#) <sup>[9]</sup> attract many more applicants than there are places and so there is considerable competition for places.

## Finding and applying for jobs

When you're looking for job or apprenticeship vacancies, there are a number of sources you can use, depending on the type of work you're seeking.

Check vacancies carefully to be sure you can meet the requirements of the person specification before applying and to find out what the application process is. You may need to apply online or send a C.V. for example.

For the [NHS Scientist Training Programme \(STP\)](#) <sup>[12]</sup> and [Higher Specialist Scientist Training \(HSST\)](#) <sup>[9]</sup> there is an annual recruitment cycle.

Applications for the [STP](#) <sup>[13]</sup> and [HSST](#) <sup>[14]</sup> should be made through the [National School for Healthcare Science website](#) <sup>[15]</sup>, where you can also find information about the programmes and the recruitment process.

Key sources relevant to vacancies in the health sector:

- Vacancies in organisations delivering NHS healthcare can be found on the [NHS Jobs website](#) <sup>[16]</sup>
- Opportunities in the Civil Service can be found on the [Civil Service Jobs website](#) <sup>[17]</sup>
- Vacancies in local government can be found on the [Local Government Jobs website](#) <sup>[18]</sup> and the [Jobs Go Public website](#) <sup>[19]</sup>

As well as these sources, you may find suitable vacancies in the health sector by contacting local employers directly, searching in local newspapers and by using the [Universal Jobmatch tool](#) <sup>[20]</sup>.

[Find out more about applications and interviews](#) <sup>[21]</sup>.

Volunteering is an excellent way of gaining experience (especially if you don't have enough for a specific paid job you're interested in) and also seeing whether you're suited to a particular type of work. It's also a great way to boost your confidence and you can give something back to the community.

[Find out more about volunteering and gaining experience](#) <sup>[22]</sup>.

## • Further information

For further information about a career in clinical biochemistry, please contact:

- [Academy for Healthcare Science](#) [23]
- [The Association for Clinical Biochemistry](#) [24]
- [Health and Care Professions Council](#) [25]
- [National School for Healthcare Science](#) [15]
- [The Royal College of Pathologists](#) [26]

## Other roles that may interest you

- [Analytical toxicology](#) [27]
- [Biomedical science](#) [28]
- [Clinical immunology](#) [29]
- [Microbiology \(healthcare scientist\)](#) [30]

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