Biomedical science

Biomedical scientists carry out a range of laboratory and scientific tests to support the diagnosis and treatment of disease.

Operating theatres, accident and emergency (A&E) and many other hospital departments would not function without biomedical scientists. For example, in A&E, you would work in the blood sciences department, testing emergency blood transfusions for blood groups and samples from patients who have overdosed or had a heart attack.

Working life

Biomedical scientists investigate a range of medical conditions, including:
The work is highly varied, practical and analytical

- cancer
- diabetes
- blood disorders (eg anaemia)
- meningitis
- hepatitis
- AIDS

You would also perform a key role in screening for diseases, identifying those caused by bacteria and viruses and monitoring the effects of medication and other treatments.

You would learn to work with computers, sophisticated automated equipment, microscopes and other hi-tech laboratory equipment and you would use a wide range of complex modern techniques in your day-to-day work.

The work is highly varied, practical and analytical. You would usually specialise in one of three specific areas:

- infection sciences [1]
- blood sciences [2]
- cellular sciences [3]

'What we do is vital for helping pathologists make a better diagnosis and find the right treatment for patients.'

*Saghar Missaghian-Cully, senior biomedical scientist in histopathology*

Read Saghar's story [4]

Where could I work?

You could work for an NHS hospital trust or other NHS organisations. There are also opportunities with NHS Blood and Transplant [5] and Public Health England [6]. You will work as part of a team including other healthcare science staff [7], doctors [8] and nurses [9].

Want to learn more?

- Find out more about the entry requirements, skills and interests required to enter a career in biomedical science [10]
- Find out more about the training you'll receive for a career in biomedical science [11]
- Pay and conditions Expand / Collapse

Most jobs in the NHS are covered by the Agenda for Change (AfC) [12] pay system. This pay system covers all staff (including healthcare science staff) except doctors, dentists and the most senior managers.
Biomedical science staff in the NHS will typically be on AfC bands 5 – 9, depending on their precise role and level of responsibility.

In the NHS, healthcare science 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 Expand / Collapse
  There are opportunities to:
  - specialise in particular areas of biomedical science (eg blood sciences, cellular sciences, infection sciences and microbiology)
  - teach or train current staff or the next generation of biomedical scientists
  - manage staff in a team or a department; manage particular areas such as quality management, health and safety, training and development, and service delivery
  - undertake clinical academic research

- Job market and vacancies Expand / Collapse

Job market information

In January 2018, there were 22,121 biomedical scientists registered with the Health and Care Professions Council.

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 CV for example.

Key sources relevant to vacancies in the health sector:

- Vacancies in organisations delivering NHS healthcare (including some vacancies with Public Health England) can be found on the NHS Jobs website.
- Opportunities in the Civil Service (including some vacancies with Public Health England) can be found on the Civil Service Jobs website.
- Vacancies in local government can be found on the Local Government Jobs website and the Jobs Go Public website.
- Vacancies for apprenticeships appear on the Gov.uk website.

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.

Find out more about applications and interviews.

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 [24], [25]

- Further information Expand / Collapse
  To find out more about working and training in biomedical science, contact:

  - Academy for Healthcare Science (AHCS) [26]
  - Health and Care Professions Council [27]
  - Institute of Biomedical Science [28]
  - National School for Healthcare Science [29]
  - UCAS [30]

Other roles that may interest you

- Blood sciences [31]
- Cellular sciences [32]
- Infection sciences [33]
- Virology (healthcare scientist) [34]

Source URL: https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/roles-healthcare-science/life-sciences/biomedical-science

Links
[13] https://www.healthcareers.nhs.uk/glossary#AfC
[21] https://www.gov.uk/jobsearch
[22] https://www.healthcareers.nhs.uk/career-planning/planning-your-career/applications-and-interviews
[23] https://www.healthcareers.nhs.uk/career-planning/offering-career-support/training-and-teaching-resources-young-people/application
[25] https://www.healthcareers.nhs.uk/i-am/secondary-school-or-fe-college/gaining-experience
[26] http://www.ahcs.ac.uk
[27] http://www.hcpc-uk.org/
[34] https://www.healthcareers.nhs.uk/explore-roles/healthcare-science/roles-healthcare-science/life-sciences/virology-healthcare-scientist