

## The healthcare sector

Microbiologists are employed in a range of roles within the healthcare sector. They often work in multi-disciplinary teams alongside people with expertise in a range of fields. Here is a brief guide to the different career pathways.

## Public sector

There are two well-defined career paths for medical microbiologists in the public sector: via the Biomedical Scientist (BMS) route or the Clinical Scientist route. Anyone wishing to work in either of these roles must be state registered with the Health Professions Council.

Biomedical scientists usually work in hospital and Health Protection Agency (HPA) laboratories, investigating samples of body tissue and fluids to diagnose disease, monitor treatments or track disease outbreaks. They also find work in other organizations including the National Blood Authority, pharmaceutical industry, university, Medical Research Council (MRC) and forensic labs. Long-term career prospects include laboratory management, research and teaching. Entry is restricted to graduates, usually with degrees that have been validated by the Institute of Biomedical Science (IBMS). It is possible to enter the profession with a related bioscience degree but the Institute assesses course content and it is sometimes necessary to undertake additional study. The IBMS awards a certificate of competence, following a period of in-service training in an approved laboratory, which is required for state registration.

Clinical scientists generally work in diagnostic labs and pathology departments in large hospitals run by NHS Trusts and medical schools. In addition to laboratory-based research, they give scientific and clinical advice that has a direct bearing on the management of patients. Training towards state registration is overseen by the Association of Clinical Microbiologists and can be one of two pathways:

- ▶ 4-year structured training, which includes a Grade A Clinical Scientist course followed by a year or two experience in the laboratory whilst under supervision
- ▶ a 6-year route, which concentrates on achieving state registration by experience. Applicants must gather evidence to support their case for registration

The HPA is also a major employer of clinical microbiologists, some of who work in reference labs or as epidemiologists. Work focuses on disease diagnosis, treatment and surveillance; clinical scientists often collaborate closely with health care professionals. There is some opportunity to carry out research and development projects in the specialisms of bacteriology, virology, mycology and parasitology.

Annual recruitment to the national Grade A training programme begins in November and the closing date for applications is in February. Competition is very stiff, with only a handful of microbiology training placements each year. Contact the Clinical Scientist Recruitment Office (details below) for information on the clearing house and an application form. Some training posts are available directly through the regional NHS Trusts or the HPA; these are advertised in *New Scientist* ([www.newscientistjobs.com](http://www.newscientistjobs.com)) and on the HPA website.

## Medical related research

Work in clinical microbiology is not restricted to state registered Biomedical or Clinical Scientists. There are opportunities for PhD and postdoctoral research posts in HPA, university and MRC and hospital labs. These are usually short-term contracts but the experience could be used to work towards state registration as a Clinical Scientist by the 6-year route. There are also vacancies for graduate research technicians and assistants.

## Industry

Graduates with qualifications in biomedical sciences or medical microbiology work in the pharmaceutical industry at most stages of the drug development process. Work may be based in the R&D laboratories, at manufacturing sites, or knowledge and experience can be applied to roles in registration and regulatory affairs or sales and marketing. Further information is available from the Association of the British Pharmaceutical Industry (ABPI). Some posts are advertised in *New Scientist* but many positions are filled by scientific recruitment agencies.

## Further information:

- ▶ *Careers in Biomedical Science* - IBMS, 12 Coldbath Square, London EC1R 5HL ([www.ibms.org](http://www.ibms.org))
- ▶ *Biomedical Science Jobs* - [www.careerscene.com](http://www.careerscene.com)
- ▶ *Clinical Microbiologist* - Health Service Careers, PO Box 376, Bristol BS99 3EY ([www.nhscareers.nhs.uk](http://www.nhscareers.nhs.uk))
- ▶ Details of state registration from Health Professions Council,

- ▶ 184 Kennington Park Road, London SE11 4BU ([www.hpc-uk.org](http://www.hpc-uk.org))
- ▶ *Careers in the Pharmaceutical Industry* - ABPI, 12 Whitehall, London SW1A 2DY ([www.abpi-careers.org](http://www.abpi-careers.org))
- ▶ MRC, 20 Park Crescent, London W1N 4AL ([www.mrc.ac.uk](http://www.mrc.ac.uk))
- ▶ HPA, 61 Colindale Avenue, London NW9 5DF ([www.hpa.org.uk](http://www.hpa.org.uk))
- ▶ Clinical Scientist Recruitment Office (t: 08714333070; [www.nhsclinicalscientists.info](http://www.nhsclinicalscientists.info))