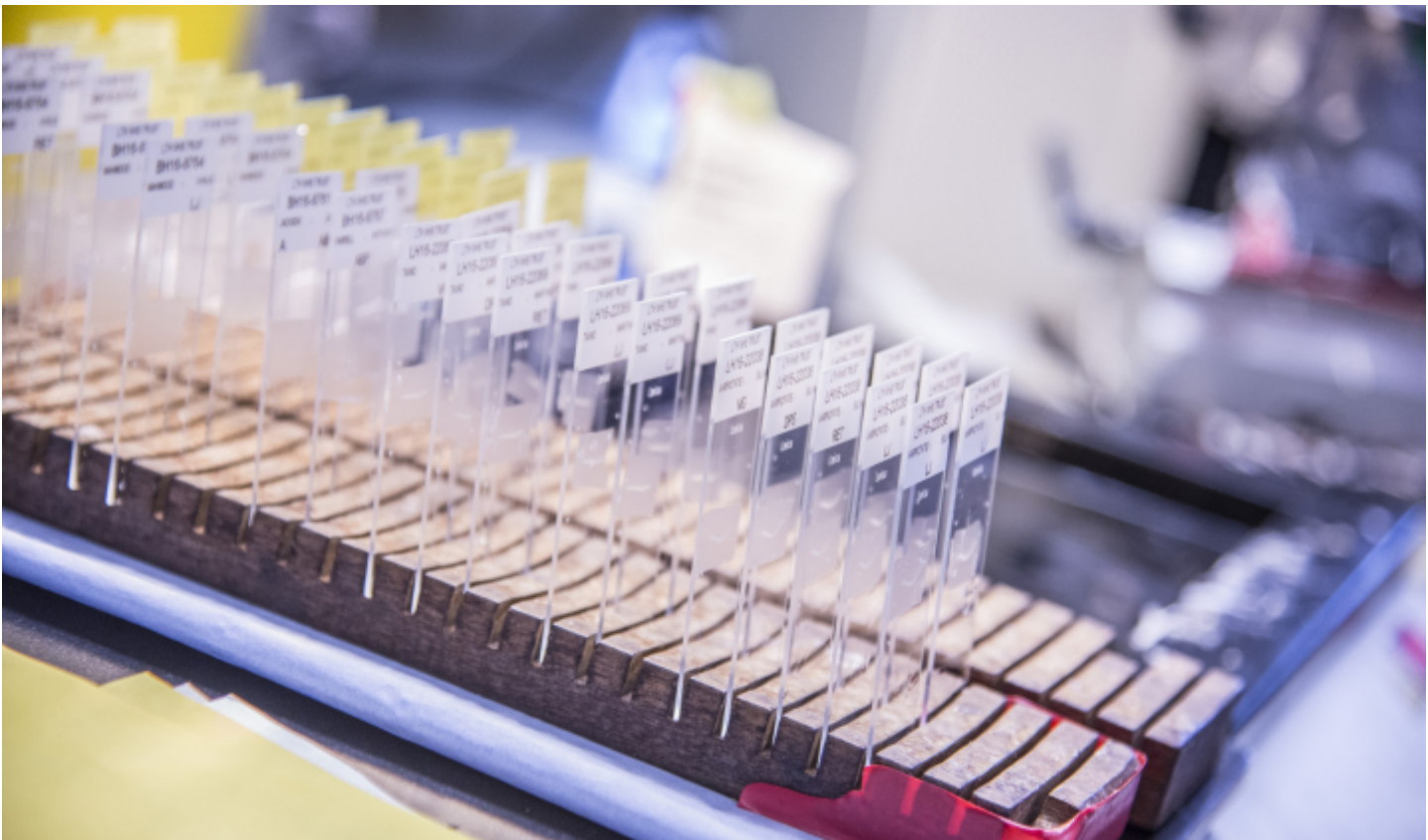


# Immunology

Immunology is the branch of medicine concerned with the body's defence system known as the immune system. Immunologists study how the immune system functions and they treat patients with immune system disorders.

This page provides useful information on the nature of the work, the common procedures/interventions, sub-specialties and other roles that may interest you.



## Nature of the work

Clinical immunologists in the UK undertake a range of clinical and laboratory duties. Their clinical work is largely outpatient based and involves:

- primary immunodeficiency (diseases where part of the immune system is missing or doesn't function properly)
- allergy
- autoimmune disorders (where the immune system attacks itself), eg rheumatoid

arthritis, Type- 1 diabetes and vasculitis (inflammation of the blood vessels which can cause narrowing or damage)

- joint paediatric clinics for children with immunodeficiency
- immunoglobulin (antibody) infusion clinics for patients with antibody deficiency

Their laboratory work underpins the diagnosis and monitoring of immunological diseases. Immunologists have responsibility for:

- clinical liaison
- interpretation and validation of results
- [quality assurance](#) [1] and assay development (to measure the biochemical or immunological activity of a sample)

A minority of immunologists (less than ten percent) also provide laboratory support for organ transplantation, to minimise rejection in organ transplant patients.

Immunologists provide support for the diagnosis and management of conditions such as:

- human immunodeficiency virus (HIV)
- other severe/systemic infections
- multiple sclerosis
- tuberculosis

## Common procedures/interventions

These include:

- use of drugs to suppress the immune system
- intravenous therapies for antibody replacement and immunomodulation (therapeutic interventions that modify the immune response)
- monoclonal antibody therapies – involving the use of a single type of antibody to either stimulate or block the immune system

## Sub-specialties

Immunologists may develop sub-specialty interests such as:

- rheumatology
- HIV medicine
- transplantation

## Want to learn more?

Find out more about:

- the working life [2] of someone in immunology
- the entry requirements [3] and training and development [4]
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## Pay and conditions

Expand / collapse

This section provides useful information about the pay for junior doctors (doctors in training), specialty doctors, consultants and general practitioners.

Find out more about the current pay scales for doctors <sup>[5]</sup> and there's more information on the BMA website <sup>[6]</sup>.

NHS Employers <sup>[7]</sup> provides useful advice and guidance on all NHS pay, contracts terms and conditions.

Medical staff working in private sector hospitals, the armed services or abroad will be paid on different scales.

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## Where the role can lead

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Read about consultant and non-consultant roles in immunology, flexible working and about wider opportunities.

### Consultant roles

You can apply for consultant roles six months prior to achieving your [Certificate of Completion of Training](#) <sup>[8]</sup> (CCT <sup>[9]</sup>). You will receive your CCT <sup>[9]</sup> at the end of immunology.

Managerial opportunities for consultants include:

- clinical lead - lead NHS consultant for the team
- clinical director - lead NHS consultant for the department
- medical director - lead NHS consultant for the Trust

Most NHS consultants will be involved with clinical and educational supervision of junior doctors.

Here are some examples of education and training opportunities:

- director of medical education - the NHS consultant appointed to the hospital board who is responsible for the postgraduate medical training in a hospital. They work with the postgraduate dean to make sure training meets GMC standards.
- training programme director - the NHS consultant overseeing the education of the local cohort of trainee doctors eg [foundation training](#) <sup>[10]</sup> programme director. This role will be working within the LETB/deanery
- associate dean - the NHS consultant responsible for management of the entirety of a training programme. This role will be also be working within the LETB/deanery

### **SAS doctor roles**

There are also opportunities to work at non-consultant level, for example as a SAS (Specialist and Associate Specialist) doctor. SAS doctors are non-training roles where the doctor has at least four years of postgraduate training, two of those being in a relevant specialty. Find out more about SAS doctor roles <sup>[11]</sup>.

### **Other non-training grade roles**

These roles include:

- trust grade
- clinical fellows

### **Academic pathways**

If you have trained on an academic immunology pathway or are interested in research there are opportunities in academic medicine.

For those with a particular interest in research, you may wish to consider an academic career in immunology. Whilst not essential, some doctors start their career with an Academic Foundation post. This enables them to develop skills in research and teaching alongside the basic competences in the foundation curriculum.

Entry into an academic career would usually start with an Academic Clinical Fellowship (ACF) and may progress to a Clinical Lectureship (CL). Alternatively some trainees that begin with an ACF post then continue as an ST trainee on the clinical programme post-ST4.

Applications for entry into Academic Clinical Fellow posts are coordinated by the National Institute for Health Research Trainees Coordinating Centre (NIHRTCC). <sup>[12]</sup>

There are also numerous opportunities for trainees to undertake research outside of the ACF/CL route, as part of planned time out of their training programme. Find out more about academic medicine <sup>[13]</sup>.

The Clinical Research Network <sup>[14]</sup> (CRN) actively encourages all doctors to take part in clinical research.

- **Job market and vacancies**

**Expand / collapse**

This section provides useful information about the availability of jobs, finding vacancies and where to find out more.

### **Job market information**

NHS Digital regularly publish workforce statistics which show the number of full time equivalent consultants and doctors in training for each specialty: NHS Digital workforce statistics <sup>[15]</sup>.

Competition ratios for medical specialty training places are published on Health Education England's specialty training webpage <sup>[16]</sup>.

**On this section we have information for England only.** For information regarding Scotland, Wales and Northern Ireland please click on the links below.

[NHS Scotland medical and dental workforce data <sup>\[17\]</sup>](#)

[NHS Wales medical and dental workforce data <sup>\[18\]</sup>](#)

[Department of Health, Social Services and Public Safety workforce information for Northern Ireland <sup>\[19\]</sup>](#)

### **Where to look for vacancies**

All trainees apply through the online application system Oriel <sup>[20]</sup>. You will be able to register for training, view all vacancies, apply, book interviews and assessment centres, and manage offers made to you.

Local education and training boards (LETBs)/deaneries will have details of training vacancies. Not all LETBs/deaneries will offer new training posts in all specialties in all years.

All jobs will be advertised on the NHS Jobs website <sup>[21]</sup>.

The BMJ Careers website <sup>[22]</sup> also advertises vacancies.

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## Further information

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### Organisations

Royal College of Physicians [23]

Royal College of Physicians of Edinburgh [24]

Royal College of Physicians and Surgeons of Glasgow [25]

Royal College of Pathologists [26]

British Society for Immunology [27]

### Real-life stories

Scott Pereira, immunology (BMJ) [28]

## Other roles that may interest you

- Rheumatology [29]
- Infectious diseases [30]
- Allergy [31]
- Dermatology [32]

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**Source URL:** <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/immunology>

### Links

- [1] [https://www.healthcareers.nhs.uk/glossary#Quality\\_assurance](https://www.healthcareers.nhs.uk/glossary#Quality_assurance)
- [2] <https://www.healthcareers.nhs.uk/explore-roles/medicine/immunology/working-life>
- [3] <https://www.healthcareers.nhs.uk/explore-roles/medicine/immunology/entry-requirements-skills-and-interests>
- [4] <https://www.healthcareers.nhs.uk/explore-roles/medicine/immunology/training-and-development>
- [5] <https://www.healthcareers.nhs.uk/about-us/careers-medicine/pay-doctors>
- [6] <http://bma.org.uk/practical-support-at-work/pay-fees-allowances/pay-scales>
- [7] <http://www.nhsemployers.org/your-workforce/pay-and-reward>
- [8] [https://www.healthcareers.nhs.uk/glossary#Certificate\\_of\\_completion\\_of\\_training](https://www.healthcareers.nhs.uk/glossary#Certificate_of_completion_of_training)
- [9] <https://www.healthcareers.nhs.uk/glossary#CCT>
- [10] [https://www.healthcareers.nhs.uk/glossary#Foundation\\_training](https://www.healthcareers.nhs.uk/glossary#Foundation_training)
- [11] <https://www.healthcareers.nhs.uk/i-am/currently-working-health/information-doctors/sas-doctors>
- [12] <https://www.nihr.ac.uk/>
- [13] [http://www.medicalcareers.nhs.uk/career\\_options/academic\\_medicine.aspx](http://www.medicalcareers.nhs.uk/career_options/academic_medicine.aspx)
- [14] <http://www.crn.nihr.ac.uk/>

- [15] <https://digital.nhs.uk/data-and-information/publications/statistical/nhs-workforce-statistics>
- [16] <https://specialtytraining.hee.nhs.uk/Competition-Ratios>
- [17] <http://www.isdscotland.org/Health-Topics/Workforce/Medical-and-Dental/>
- [18] <https://statswales.wales.gov.uk/Catalogue/Health-and-Social-Care/NHS-Staff/Medical-and-Dental-Staff>
- [19] <https://www.health-ni.gov.uk/articles/staff-numbers>
- [20] <https://www.orient.nhs.uk/>
- [21] <http://www.jobs.nhs.uk/>
- [22] <http://careers.bmj.com>
- [23] <http://www.rcplondon.ac.uk/>
- [24] <http://www.rcpe.ac.uk/>
- [25] <http://www.rcpsg.ac.uk>
- [26] <http://www.rcpath.org/careers/immunology>
- [27] <https://www.immunology.org/>
- [28] <http://careers.bmj.com/careers/advice/view-article.html?id=430>
- [29] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/rheumatology>
- [30] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/infectious-diseases>
- [31] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/allergy>
- [32] <https://www.healthcareers.nhs.uk/explore-roles/doctors/roles-doctors/medicine/dermatology>