

INFECTION & IMMUNITY

This course is designed to provide an up-to-date advanced understanding of the interactions between bacterial, fungal and parasitic pathogens and their hosts. Infectious diseases are increasing in importance around the world as we see the rise in the incidence of antibiotic resistance.

The content of the course is mapped to The **Joint Royal Colleges of Physicians Training Board Speciality Training Curriculum for Immunology, and Speciality Training Curriculum for Infectious Diseases and Tropical Medicine.**

Modules

Evidence Based Medicine

Analysis and Interpretation of Clinical Data

Clinical Immunology and Microbial Pathogenesis

Discussion of clinical immunology, including:

- Immune mediated disorders (e.g. mechanism of autoimmunity, hypersensitivity reactions, immunological markers of disease – Flow Cytometry & ELISA, cytokines)
- Transplantation immunology (HLA polymorphism, HLA function, anti-rejection therapy, graft versus host disease)
- Pathogenesis of infectious disease
- Aspects of Infection/host parasite interaction
- Parasitology/Medical Mycology
- Chemotherapy and Immunotherapy
- Epidemiology of Infectious Disease
- Diagnosis of Infectious Disease

Infectious Disease

Develops an understanding of the types of infectious diseases and discusses virulence and susceptibility. Discusses the current knowledge on the mechanisms involved in infection and pathology of diseases caused by:

- Viruses
- Bacteria
- Fungi
- Protozoa
- Helminths
- Ectoparasites
- Prions

Advanced Immunology

A detailed look at interactions between infectious organisms and the immune system and the challenges to develop control measures for infectious disease.

- mechanisms used by the immune system to detect and dispose of invasive agents
- mechanisms used by microorganisms to evade the immune system
- evaluate strategies to manipulate the immune system to prevent or treat infections
- Epidemiology case studies - differences in developed and non-developed countries
- Public health measures - impact of environment
- Emerging and future infectious diseases

Case Investigations in Molecular Medicine

Research Dissertation

How course will be taught

Deliver taught modules as three-day intensive courses to facilitate attendance from students in employment. Weekly support sessions and journal club supplement learning – all held in our modern facilities in Bache Hall on the Countess of Chester Hospital Campus.

Fees & Funding

2018/19 full course fee: £12,000