

Medical Microbiology Post-graduate Diploma: 2025

Overview

This course provides a comprehensive survey of diagnostic microbiology theory and practice. Relevant research from LMIC (Low / Middle Income Countries) settings is highlighted. The faculty include LMIC-experienced or based microbiologists (medical and scientific), infectious diseases physicians and medical researchers.

Evaluations by our previous students:

"Engaging and insightful, the course provided a year of continuous learning and discovery, making it a truly enriching experience." Dr Samiya Kainat

"The course was very informative and helpful. And having moodle was very helpful to keep track of the all the quizzes and the lectures." Dr Mayday Fanueli

"Very informative and relatable to low resource income countries." Dr Ilaisaane Fonohema

"This is a comprehensive course taught by experts in the field." Dr Heather Brooks

Target audience for the course

- Postgraduate medical registrars/residents from LMIC settings
- LMIC pathologists or physicians who wish to update their diagnostic microbiology and infectious diseases knowledge
- Other interested health care professionals

Course outline and time requirement

There are 28 weekly modules running across two semesters from March (see Appendix) with course sessions occurring on Wednesdays and most Fridays at 12:00 hrs, AEST. The first semester focuses on foundation topics and semester two addresses advanced topics. An online teaching site is used to access live and recorded presentations and supplementary background reading. Attendance to the live session is preferred; access to a recording is provided as well. The journal club sessions can also be accessed [independently](#).

Approximately 4 hours per week for course activities and review of materials is usually required.

Enrolment

Enrolment is arranged by emailing medmicro@pridanetwork.org before **28th February 2025**. Students can elect to enrol for either or both semesters in a calendar year. The non-refundable course fee is AUD \$50 (same fee regardless of the number of semesters completed).

Course assessment

Student course engagement is monitored regularly and poor engagement may prompt contact from one of the course coordinators to provide assistance.

There are 3 required assessment elements:

1. Attendance at course sessions (live or recorded) – this is tracked and at least a 90% attendance record is required. This includes journal club sessions.
2. Completion of each semester's MCQ assessment – mark of at least 70% is required.

- Journal club presentation: students from LMIC locations are additionally required to prepare and present at least one journal article review during 2025.

Course endorsements

This course is certified by CIFAL (Centre International de Formation des Autorités/Acteurs Locaux). Participants who successfully complete each semester of this course will receive a Certificate of Completion co-signed by UNITAR (United Nations Institute for Training and Research) and CIFAL Newcastle. The Fiji National University and the University of PNG incorporate this course into their requirements for medical pathology trainees. The Royal College of Pathologists of Australasia also documents its support for the course.

Course Faculty

- **Dr Trine Gulholm, Infectious Diseases Physician , SE Sydney Local Health District, NSW, Australia (Course Coordinator)**
- **Dr Rebecca Ford, former Senior Research Fellow, Infection and Immunity, PNGIMR (Course Coordinator)**
- **Dr John Ferguson, Microbiologist & Infectious Diseases Physician, John Hunter Hospital, NSW, Australia (Course Coordinator)**
- Dr Ben Knippenberg, Microbiologist & Infectious Diseases Physician, SE Sydney Local Health District, NSW, Australia
- Dr Khin Chaw, Microbiologist & Infectious Diseases Physician , Brisbane, QLD, Australia
- Dr Chris Ashhurst-Smith, Senior microbiology scientist, Pathology North, NSW, Australia
- Dr Rob Norton, Director of Microbiology and Pathology, Townsville University Hospital, QLD, Australia
- Dr David Siebert, Medical Virologist (Pathologist), Infectious Diseases Physician, Princess Alexandra Hospital, QLD, Australia
- Dr Indy Sandaradura, Microbiologist & Infectious Diseases Physician, ICPMR, Westmead Hospital, NSW Australia
- Dr Bianca Graves, Microbiologist, Pathology Queensland, QLD, Australia
- Dr Sarah Cherian, Microbiologist and Pathologist-in-Charge of Sullivan Nicolaides Pathology
- Dr Claire Heney, Microbiologist, Pathology Queensland, Brisbane, Australia
- Dr Kate McCarthy, Microbiologist – Pathology Queensland, Infectious diseases Physician, Royal Brisbane Womens Hospital, QLD
- Dr Nikki Townell, Microbiologist & Infectious Diseases Physician, Sunshine Coast University Hospital, QLD, Australia
- Dr Belinda Bin Lin, Microbiologist & Infectious Diseases Physician, Royal Melbourne Hospital and University of Melbourne
- Dr Anthony Elias, Microbiologist & Infectious Diseases Physician, Gosford Hospital, NSW, Australia
- Dr Ian Marr, Microbiologist & Infectious Diseases Physician, Canberra, ACT, Australia and Menzies Institute for East Timor
- Dr Siobhan Hurley, Microbiology and Infectious Diseases Registrar, Prince of Wales Hospital, Sydney, Australia
- Dr Andrew Vallely, Epidemiologist and research scientist, Kirby Institute, NSW, Australia
- A/Professor Angela Kelly-Hanku, Head, Global Health Equity and Justice Research group, Kirby Institute, NSW, Australia
- Dr Chris Coulter, Microbiologist & Infectious Diseases Physician, Brisbane, QLD, Australia, Director, Queensland Mycobacterium Reference Laboratory,
- Dr Harsha Sheorey, Microbiologist , St Vincent's Hospital, Melbourne, Victoria, Australia
- Dr Syeda Naqvi, Microbiologist & Infectious Diseases Physician, John Hunter Hospital, NSW, Australia
- Dr Tonnii Sia, Infectious Diseases Physician, Dr. Tonnii. Physician, Umum Sarawak Hospital, Kuching, Sarawak, Malaysia

Provisional Course Timetable, 2025

Semester 1

Week commencing	Module	Wednesday Sessions (1200hr AEST)	Friday Sessions (1200hr AEST)
03/03/2025	1	Introduction to course, mentor and faculty introductions (Monday): Trine Gulholm Classification of microbes, pathogenesis, host defences, immunocompromised states (Wednesday) : Khin Chaw	Journal club
10/03/2025	2	Microscopy procedures, pre-analytical issues, diagnostic stewardship: Rob Norton	No session
17/03/2025	3	Molecular microbiology techniques : David Siebert	Journal club
24/03/2025	4	Gram positive and negative bacterial identification: Khin Chaw	MALDI-TOF identification: Tony Elias
31/03/2025	5	Basic culture media and biochemical tests : Sarah Cherian	Journal club
07/04/2025	6	Laboratory quality management, principles of internal quality control and external QA : Rebecca Ford	No session
14/04/2025	7	AST, breakpoints, internal quality control, key bacterial resistance phenotypes, multi-resistant organisms : Rob Norton	Journal club
21/04/2025	8	Laboratory safety & Infection prevention & control: Rebecca Ford	No session
28/04/2025	9	GIT infection including rotavirus: Tony Elias	Journal club
05/05/2025	10	Skin & soft tissue infection: Kate McCarthy	No session
12/05/2025	11	Respiratory tract infection: Belinda Bin Lin	Journal club
19/05/2025	12	Antibiotics, PK/PD, antibiotic classes: Indy Sandaradura	No session
26/05/2025	13	Urinary tract infection: Bianca Graves	Journal club
02/06/2025	14	Bloodstream bacterial infection, BSI surveillance/liaison and cardiovascular infections: Trine Gulholm	No session
10/06/2024		End of semester revision session: Trine Gulholm End of semester 1 assessment	No session

Semester 2

Week commencing	Module	Wednesday Sessions (1200hr AEST)	Friday Sessions (1200hr AEST)
23/06/2025	1	Antimicrobial stewardship: presenter to be determined	Journal club
30/06/2025	2	Intra-abdominal infection: Syeda Naqvi	Anaerobic infection : Syeda Naqvi
07/07/2025	3	CNS infections including cryptococcal infection: Ian Marr	Journal club
14/07/2025	4	Bone & joint - including diabetic foot infection: Nikki Townell	Melioidosis case presentations: Dr Tonnii Sia
21/07/2025	5	Tuberculosis diagnosis : Chris Coulter	Journal club
28/07/2025	6	Serological testing and antibody/antigen RDTs; Dengue, polio, measles, rubella as specific examples: Tony Elias	Tuberculosis infection control : John Ferguson
04/08/2025	7	Diagnosis of other parasitic infections (protozoans and helminths): Harsha Sheorey	Journal club
11/08/2025	8	Advanced / emerging approaches to diagnostics : Ian Marr	No session
18/08/2025	9	STI 1- HIV, HSV, HPV and point of care testing Andrew Vallely	Journal club
25/08/2025	10	Rickettsial infection: Stephen Graves	Triple elimination programs (HBV, HIV, Syphilis): Angela Kelly-Hanku
01/09/2025	11	Malaria: Ben Knippenberg	Journal club
08/09/2025	12	Hepatitis B and C diagnostic testing and monitoring; blood bank (WHO) BBV testing : Sarah Cherian	Sexually-transmitted infections 2 - Bacterial infections : Siobhan Hurley
15/09/2025	13	Fungal infections: David Siebert	Journal club
22/09/2025	14	Biological threats and security: Ben Knippenberg	No session
29/09/2025		End of semester revision session: Trine Gulholm End of semester 2 assessment	Journal club