



# Medical Microbiology Post-graduate Diploma: 2021

## Overview

This course provides a comprehensive survey of diagnostic microbiology theory and practice. Locally relevant research is highlighted. The faculty include practicing microbiologists (medical and scientific) and medical research scientists.

## Target audiences

- Post graduate medical registrars/residents studying pathology in the LMIC setting.
- Practicing general pathologists in LMICs who wish to update their diagnostic microbiology knowledge and practice

## Course pre-requisites

The student is encouraged to become an affiliate member of the RCPA in order to access RCPA online educational materials such as the lab safety and ethics courses.

Course texts will be recommended at the outset of the course with relevant background reading will be specified for each module. For many modules, video instructions are emphasised.

Whilst it is no longer part of the curriculum, the WHO LQMS handbook, 2011 is recommended for students to access, print and bind so that they have a ready reference to laboratory quality management requirements that underpin all of pathology practice.

## Course outline and duration

In 2021, the 28 weekly modules will run from March to September. Learning objectives, reading, video instruction and associated recommended practical skills are specified.

Where possible, directly observed practical skills (DOPS) should be completed and signed off by supervisors in either Port Moresby or Suva using documentation derived from the RCPA, Australia. This component does not comprise part of the course assessment however.

## Faculty

- Dr Khin Chaw, Infectious Diseases Physician & Clinical Microbiologist, Brisbane, QLD, Australia (Course Coordinator)
- Dr Ben Knippenberg, Infectious Diseases & Clinical Microbiology Advanced Trainee Darwin, NT, 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 Bianca Graves, Medical Microbiologist, Pathology Queensland, QLD, Australia
- Dr Sarah Cherian, Microbiologist and Pathologist-in-Charge of Sullivan Nicolaides Pathology's Bowel Cancer Screening Laboratory based in QLD, Australia
- Dr Claire Heney, Microbiologist, Pathology Queensland, Brisbane, Australia
- Mr Joe Hessel, Pharmacist consultant, Diagnostic Microbiology Development Program, Cambodia
- Assoc. Professor John Ferguson, Microbiologist & Infectious Diseases Physician, John Hunter Hospital, NSW, Australia (Course Coordinator)



- Dr Nikki Townell, Microbiologist & Infectious Diseases Physician, Gold Coast, QLD, Australia and Cambodia (DMDP)
- Dr Smathi Chong, Microbiologist & Infectious Diseases Physician, Perth, Western Australia
- Dr Ian Marr, Microbiologist & Infectious Diseases Physician, Canberra, ACT, Australia and Menzies Institute for East Timor
- Dr Andrew Vallely, Epidemiologist, Kirby Institute, NSW, Australia
- Dr Chris Coulter, Microbiologist & Infectious Diseases Physician, Brisbane, QLD, Australia
- Dr Laurens Manning, Infectious Diseases Physician, Perth, Western Australia
- Dr Chris Ashhurst-Smith, Senior microbiology scientist, Pathology North, NSW, Australia
- Ms Fiona Courtney (Oehme), Microbiology scientist, Pathology North, NSW, Australia

## Course assessments and outcome

Attendance at weekly teleconferenced tutorial sessions and revision week sessions is expected and recorded. Tutorials are recorded for later review if it is not possible to attend.

Formative assessments (fortnightly short answer question) are conducted. Satisfactory completion (mark of at least 50%) of all of the SAQ is required. An unsatisfactory SAQ will lead to a request to resubmit. The SAQ responses are monitored for plagiarism.

Other formative assessments will take place during the revision weeks.

Students are expected to participate in the PRIDA fortnightly journal club and prepare and present at least on journal article review during 2021. To join the journal club, email Dr Ian Marr [Ian.Marr@gmx.com](mailto:Ian.Marr@gmx.com).

Successful students will be awarded a course diploma by PRIDA in December 2021.

## Course endorsements

The Fiji National University requires successful completion of this course as a pre-requisite to entry into the Pathology Masters program. The University of PNG currently recommends course completion as part of their post part 1 Master of Medicine (Pathology) program. This requirement is still under review (January 2021). The RCPA also acknowledges that it supports the course.

## Enrolment process

Enrolment is arranged by emailing the course coordinator – please email [Khin.Chaw@health.qld.gov.au](mailto:Khin.Chaw@health.qld.gov.au) before **March 1<sup>st</sup> 2021**.

The student is then enrolled onto the Moodle teaching site and on <http://idmic.net>, receiving emails confirming that enrolment. There is no cost for attending this Diploma.

The course commences in the week commencing 1st March 2021.

## Appendix: 2021 Course overview

Week commencing	Week #	Module topics
1/03/2021	1	<ul style="list-style-type: none"><li>• Introduction to course</li><li>• Classification of microbes, pathogenesis, host defences, immunocompromised states</li></ul>



8/03/2021	2	Microscopy procedures, pre-analytical issues
15/03/2021	3	COVID19 Diagnostics
22/03/2021	4	Basic culture media and biochemical tests
29/03/2021	5	Gram positive and negative identification (following DMDP.org algorithms)
5/04/2021	6	AST, breakpoints, IQC Key bacterial resistance phenotypes, multi-resistant organisms
12/04/2021	7	Antibiotics, PK/PD, antibiotic classes
19/04/2021	8	Antimicrobial stewardship 101
26/04/2021	9	Molecular microbiology techniques
3/05/2021	10	Bloodstream bacterial infection and BSI surveillance/liaison, cardiovasc infections
10/05/2021	11	CNS infections including Cryptococcus
17/05/2021	12	Skin, soft tissue
24/05/2021	13	Bone & joint - including diabetic foot infection
31/05/2021	14	Respiratory infection
7/06/2021	15	Tuberculosis
14/06/2021	16	GIT infection including rotavirus
21/06/2021	17	Intra-abdominal infection including anaerobes
28/06/2021	18	Revision 1 - in-country if possible (PNG and Fiji)
5/07/2021	19	Urinary tract infections
12/07/2021	20	Sexually transmitted infections 1- bacterial
19/07/2021	21	STI 2- HIV, HSV, HPV
26/07/2021	22	Dengue, polio, measles, rubella, serological testing
2/08/2021	23	Hepatitis viruses - A,B,C,E, blood bank WHO practice for blood borne virus testing
9/08/2021	24	Malaria
16/08/2021	25	Other protozoal and helminth infections
23/08/2021	26	Fungal infections
30/08/2021	27	Lab biosafety & Infection prevention & control 101
6/09/2021	28	Revision 2 - in-country if possible (PNG and Fiji)

Supported by:

