

# PRIDA Medical Microbiology Post-graduate Diploma: 2022

## Overview

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

## Target audience

- Post graduate medical registrars/residents studying pathology in LMIC settings.
- 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 laboratory safety and ethics courses.

Course texts are recommended at the outset with background reading suggested for each module. Self-directed video teaching is specified for some modules.

Whilst it is not 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 2022, the 28 modules will run from 7<sup>th</sup> March to 10<sup>th</sup> October 2022 (Appendix). We use a “Moodle” teaching site and provide various materials on <http://idmic.net>.

Where possible, we recommend that directly observed practical skills (DOPS) are completed and signed off by supervisors in the home country using documentation derived from the RCPA, Australia. This component does not comprise part of the course assessment however.

## Course Faculty

- Assoc. Professor John Ferguson, Microbiologist & Infectious Diseases Physician, John Hunter Hospital, NSW, Australia (Course Coordinator)
- Dr Ben Knippenberg, Infectious Diseases & Clinical Microbiology Advanced Trainee Darwin, NT, Australia (Course Coordinator)
- Dr Khin Chaw, Infectious Diseases Physician & Clinical Microbiologist, Brisbane, QLD, 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
- Mr Joe Hessel, Pharmacist consultant, Diagnostic Microbiology Development Program, Cambodia
- Dr Nikki Townell, Microbiologist & Infectious Diseases Physician, Gold Coast, QLD, Australia and Cambodia (DMDP)
- Dr Ian Marr, Microbiologist & Infectious Diseases Physician, Canberra, ACT, Australia and Menzies Institute for East Timor

- Dr Harsha Sheorey, Consultant Medical Microbiologist, St Vincent's Hospital Melbourne
- Dr Andrew Vallely, Epidemiologist, Kirby Institute, NSW, Australia
- Dr Fabiola Martin, Sexual Health Physician
- Dr Belinda Bin Lin, Infectious Diseases Physician and Medical Microbiologist
- Dr Chris Coulter, Microbiologist & Infectious Diseases Physician, Brisbane, QLD, Australia
- Dr Chris Ashhurst-Smith, Microbiology scientist, Pathology North, NSW, Australia
- Ms Fiona Oehme, Microbiology scientist, Pathology North, NSW, Australia

### **Course assessments and outcome**

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

Four written assessments (short answer question format will occur distributed through the course. Satisfactory completion (mark of at least 50%) in all assessments is required. An unsatisfactory paper will lead to a request to resubmit. The assignments are monitored for plagiarism. Completion of some external course modules from CDC (USA) Lab Training is also required.

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 2022.

### **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. The RCPA also acknowledges that it supports the course.

### **Enrolment process**

Enrolment is arranged by emailing the course coordinator – **please email [john.ferguson@health.nsw.gov.au](mailto:john.ferguson@health.nsw.gov.au) before 28<sup>th</sup> February 2022**. There is no cost involved other than internet data fees.

We will then contact the prospective student and arrange an enrolment interview to learn more about the student's particular situation and needs prior to formal enrolment.

## Appendix: 2022 Course overview

Week commencing	Week #	Module topics
7/03/2022	1	Introduction to course (Monday); NB all lectures are on Wednesdays at 12 midday PNG time.
	1	Classification of microbes, pathogenesis, host defences, immunocompromised states (Wednesday)
14/03/2022	2	Microscopy procedures, pre-analytical issues, diagnostic stewardship
21/03/2022	3	COVID19 Diagnostics
28/03/2022	4	Basic culture media and biochemical tests
4/04/2022	5	Gram positive and negative bacterial identification
11/04/2022	6	AST, breakpoints, internal quality control, key bacterial resistance phenotypes, multi-resistant
<b>18/04/2022</b>		<b>Revision fortnight 1 including presented case study and written short answer question assessment submitted by 2/5/22</b>
2/05/2022	7	Antibiotics, PK/PD, antibiotic classes
9/05/2022	8	Antimicrobial stewardship
16/05/2022	9	Molecular microbiology techniques
23/05/2022	10	Bloodstream bacterial infection and BSI surveillance/liaison, cardiovasc infections
30/05/2022	11	CNS infections including cryptococcus
6/06/2022	12	Skin & soft tissue
13/06/2022	13	Bone & joint - including diabetic foot infection
<b>20/06/2022</b>		<b>Revision fortnight 2 including presented case study and written short answer question assessment submitted by 4/7/22</b>
4/07/2022	14	Respiratory infection
11/07/2022	15	Tuberculosis
18/07/2022	16	GIT infection including rotavirus
25/07/2022	17	Intra-abdominal infection including anaerobes
1/08/2022	18	Urinary tract infections
8/08/2022	19	STI 1- bacterial
<b>15/08/2022</b>		<b>Revision fortnight 3 including presented case study and written short answer question assessment submitted by 29/8/22</b>
29/08/2022	20	STI 2- HIV, HSV, HPV
5/09/2022	21	Dengue, polio, measles, rubella, serological testing
12/09/2022	22	Hepatitis viruses - A,B,C,E, blood bank WHO practice for blood borne virus testing
19/09/2022	23	Malaria
26/09/2022	24	Other protozoal and helminth infections
3/10/2022	25	Fungal infections
10/10/2022	26	Lab biosafety & Infection prevention & control 101
<b>17/10/2022</b>		<b>Revision fortnight 4 including presented case study and written short answer question assessment submitted by 31/10/22</b>
<b>1/12/2022</b>		<b>Announcement of successful students and issue of course certificates</b>

Supported by:

