



**SEAMEO-TROPED REGIONAL CENTRE  
FOR MICROBIOLOGY, PARASITOLOGY &  
ENTOMOLOGY  
INSTITUTE FOR MEDICAL RESEARCH,  
KUALA LUMPUR**

## **DMM**

### **DIPLOMA IN MEDICAL MICROBIOLOGY**

**8<sup>th</sup> January to 8<sup>th</sup> June 2018**



#### **Course Venue**

SEAMEO-TROPED Regional Centre for Microbiology, Parasitology & Entomology, Institute for Medical Research (IMR), Kuala Lumpur, Malaysia.

#### **Objective:**

The course aims to provide knowledge and practical training on pathogens of major significance to public health, enable participants to apply scientific approach and critical thinking

to diagnose, prevent and control infectious diseases, facilitate and strengthen institutional and national capabilities in medical diagnostic laboratory services, research and human resource development and encourage networking between the various participants' institutions and ours to foster exchange in expertise and collaboration in research projects.

#### **Entrance Requirement:**

Applicant must have:

- A good command of English because the course and examinations will be conducted in English language
- Basic degree in medical, biological or health sciences
- Work in the field of microbiology or related areas
- Should be between 26 to 46 years old at the closing date of the application & should be certified medically and physically fit to participate in this programme

#### **Course Methodology:**

The course will consist of lectures, demonstration, hands-on laboratory practical and study visit, preparation of literature review, and final examination – consisting of theory, oral presentation and practical assessment.

#### **Course Modules**

##### **• Biostatistics & Epidemiology**

Introduction to biostatistics. Types and sources of data. Descriptive statistics for microbiologist. Inferential statistics. Methods for determining association and correlation. Definition, scope and uses of epidemiology. Measurement of disease occurrence and sources of data. Epidemiological

factors and sequence of disease transmission. Epidemiologic methods. Principles of disease control.

##### **• Immunology of infectious diseases**

An introduction to molecular, cellular and clinical immunology. The lymphoid system, antigens, cell interaction, cellular basis of antibody and cell-mediated immune responses, the diversities in the immune system, immunoglobulins, complements, antigen-antibody reactions, cellular assays, autoimmunity, immune complex diseases, allergy, clinical transplantation and immunodeficiency states.

##### **• Principles of Molecular Biology**

Introduction and principles of molecular biology. Applications of molecular biology in diagnosis and research.

##### **• Bacteriology**

An introduction to medical bacteriology including general properties and nomenclature of bacteria, bacterial diseases and pathogenesis. Systematic study of medically important bacteria with special emphasis on infections endemic in Asia. Laboratory diagnosis of bacterial infections and antimicrobial agents. Disinfection and sterilization, and Health Care Associated Infections. Public Health Bacteriology and disease control.

##### **• Mycology**

Role of the mycology laboratory in the diagnosis and management of fungal diseases. Histopathological diagnosis of mycosis. A systematic study of yeast and fungi of medical importance and the diseases they cause. Antifungal agents. Pathogenicity and immunity to

fungal infections. Serodiagnosis of fungal diseases.

• **Virology**

An introduction to medical virology including general properties and nomenclature of viruses, biology of virus replication, viral immunology and pathogenesis, systemic study of medically important viruses with special emphasis on viral infections endemic in Asia, emerging viral diseases antiviral agents and viral vaccines. This module also covers diagnostic virology including collection, transportation and processing of specimens from clinical as well as field settings, biosafety and standard laboratory techniques in virology.

**Assessment of candidate:**

There will be continuous assessment of the candidate through the Course.

- Assessment at end of each module
- Literature review assignment including oral presentation.
- Final examination (theory, practical, spot test, viva voce)

Successful candidates will be awarded the Diploma in Medical Microbiology, Certificates will awarded to those attending individual module.

**Course Fee:**

i) **Diploma Medical Microbiology (DMM)**

Every participant is required to pay a course fee of **RM 15,000.00** per person that should be paid in advance. Course fee should be paid directly to the “**Director Institute for Medical Research**”. Participant may join **individual module** and the fees are listed in the schedule. However,

acceptance is subject to availability of seats.

ii) **Modular Courses**

Modular Courses offered during the DMM course. Number of candidates accepted is subject to the availability of seats. The fees and dates are subject to change.

No.	Modules	Dates (Approx. duration)	Fee (RM)
1.	Biostatistics & Epidemiology	15-26 Jan (2 weeks)	1,500
2.	Immunology of Infectious Diseases	29 Jan – 15 Feb (2 weeks)	2,000
3.	Principles of molecular biology	19 – 23 Feb (1 week)	1,000
4.	Bacteriology	26 Feb – 16 April (6½ weeks)	4,500
5.	Mycology	17 – 30 April (2 weeks)	2,000
6.	Virology	3-24 may (3 weeks)	2,500

**Accommodation:**

The Institute will provide hostel rooms (with basic facility and shared bathroom). Food is not provided at the hostel.

**Deadline of Submission:**

Not later than 8 weeks before the commencement of the Course (8 November 2017).

**How to apply:**

**1. SEAMEO -TROPMED Programme**

Applications must be made using SEAMEO-TROPMED fellowship forms obtainable from SEAMEO-TROPMED Secretariat, Faculty of Tropical Medicine, Mahidol University, 420/6 Rajvithi Road, Bangkok 10400, Thailand. **Applications must be made through the applicant’s government** to the SEAMEO-TROPMED Secretariat in Bangkok. Applications are open to applicants from ASEAN member countries only.

**2. World Health Organisation (WHO)**

Applications must be made through the WHO Regional Office using specified WHO Fellowship forms.

**3. Other sponsors and private candidates**

Candidates who are interested should follow the application procedure (refer to <http://www.imr.gov.my>)

**Further Enquiries:**

The Secretariat  
SEAMEO-TROPMED Regional Centre (Malaysia), Institute for Medical Research, Jalan Pahang, 50588 Kuala Lumpur, MALAYSIA.

Tel. No:603 – 2616 2601

Fax No:603 – 2692 0675

Email: [seameo@imr.gov.my](mailto:seameo@imr.gov.my)

