

Host Organization's Terms of Reference on Fellowship Placement

Name of organization	Bacteriology Unit, Infectious Diseases Research Centre, Institute for Medical Research, National Institute of Health/ SEAMEO TROPMED Malaysia
Brief organization description, including website.	<p>The Institute for Medical Research (IMR) was established by the British in 1900 as the Pathological Institute in Kuala Lumpur, with the aim to promote the health status of the local population and to explore the great and unknown field of tropical medicine.</p> <p>The IMR has since expanded her role and made significant contributions to biomedical research and other medical disciplines. The research efforts of the IMR have contributed significantly to the knowledge, understanding, treatment and control of some major tropical diseases in the country and region including beri-beri, malaria, cholera, typhoid, smallpox, leprosy, tuberculosis, filariasis, dengue, scrub typhus and nutrient deficiencies.</p> <p>Today, the main functions of the IMR are research, specialised diagnostic services, training and technical consultancies. The functions and responsibilities of the IMR are discharged through her nine centres.</p> <p>The Bacteriology Unit was established in 1900 along with the establishment of the Institute for Medical Research. During the early years of establishment, bacteriological work was mainly on addressing the microbiological quality of the natural waters of the country and routine diagnostic bacteriology. Over the years, the Unit gradually evolved as microbiology reference laboratory for Malaysia, offering various microbiology-based testing for all the government as well as private hospital in Malaysia, performing various research, focusing mainly on research of infectious diseases and the causative organisms and a training centre in microbiology related area for laboratory personnels in hospitals in Malaysia.</p> <p>The Unit is recognized by WHO as the National Salmonella Reference Center. The Unit is also the Centre for Culture Collection since 1970 and it is the focal point for National Surveillance on Antibiotic Resistance, Brucella and Leptospira.</p> <p>More information can be obtained from the website https://imr.nih.gov.my/en/ and https://nih.gov.my/</p>
Complete address and contact number of the organization	National Institutes of Health (NIH) Jalan Setia Murni U13/52, Seksyen U13 Setia Alam, 40170 Shah Alam, Selangor.

	Tel : +603 3362 7809
Number of Fellows the host can accept	/ Local Number of Fellows:1 / International Number of Fellows:1 (only 1 candidate at a time)
Preferred start date	May 2024
Preferred end date	July 2024 (3 months)
Supervisor (name, position, email)	Dr Rohaidah Hashim Pathologist (Clinical Microbiology) Head, Bacteriology Unit Infectious Diseases Research Centre Institute for Medical Research, National Institute of Health. rohaidah@moh.gov.my
Co-supervisors (name, position, email) – If any	Dr Muhammad Ridhuan Mohd Ali Research Officer, Bacteriology Unit Infectious Diseases Research Centre Institute for Medical Research, National Institute of Health ridhuanali@moh.gov.my
Potential Project(s) that the fellow will work on and contribute to with tentative dates	1. Nasopharyngeal Carriage of <i>Streptococcus pneumoniae</i> in Healthy Population in Malaysia 2. NGS For Enteric Bacteria Surveillance
Brief description of assignments (including the goal and details)	1. Assist the principal investigator in executing sampling approval from selected hospitals 2. Assist the principal investigator in planning hospital visit for sample collection including liaison with the respective representative from the respective hospitals 3. Assist the principal investigator in preparation and executing hospital visit for sample collection 4. Join the team of microbiologist, medical officers and research officers in collecting research demographic data and nasopharyngeal samples from eligible candidates enroll in the study from respective hospitals 5. Involve with culture of clinical specimens and identification of <i>Streptococcus pneumoniae</i> if present 6. Involve with culture of food borne isolates for whole genome sequencing test 7. Assist in analysis of bacteria sequence using free software
Expected output(s) / deliverable(s)	1. Number of hospital visit 2. Number of samples collected

	<ol style="list-style-type: none"> 3. Number of Streptococcus pneumonia successfully recovered from the samples 4. Number of PCR perform for each bacteria pathogen 5. Number of WSG test 6. Number of bacteria sequence analysis performed 7. Report
Specific qualifications and requirements for the fellow (e.g. degree, experience in particular area, etc.)	<ol style="list-style-type: none"> 1. Degree in Science, Biomedical or equivalent 2. Has at least 1 year of working experience in Microbiology Laboratory, in particular Bacteriology Laboratory. Has basic knowledge in performing bacteria culture, identification of bacteria using basic biochemical method or commercial biochemical method, bacteria susceptibility testing and 3. Basic knowledge or experience in performing polymerase chain reaction (PCR) and whole genome sequencing test 4. Excellent level in English (speaking and writing)
Resources and support (working space, access to databases, literature, and any necessary software tools, etc.) that the host can provide to Fellows	<ol style="list-style-type: none"> 1. Hospital and Community Laboratory and Bacteriology Research Laboratory, IMR 2. Access to software databases for commercial biochemical bacteria identification eg Vitek, 3. Access to free website for bacteria identification based on DNA sequences eg NCBI 4. Access to free NGS analysis software
Comments/suggestions in Fellowship Program implementation	<p>The candidate will be given exposure on preparation of research proposal, registering proposal in National Medical Research Registry (NMRR) and process involve in getting Ethical approval.</p> <p>Candidate will also be given exposure on the running of Diploma Medical Microbiology Course offered by SEA MEO TROPED Malaysia and if possible, given a lecture slot depending on candidate qualification.</p>