**Terms of Reference**

**Post Title: Laboratory Technician RISE laboratory**
Program: Revitalising Informal Settlements and their Environments (RISE)
Reporting to: (1st) Laboratory Manager Indonesia, (2nd) Assessment Project Manager Indonesia; (3rd) RISE Country Manager Indonesia

Strong working relations to: RISE Assessment Leaders

Duty Station: Faculty of Public Health, Universitas Hasanuddin, Makassar, Indonesia
Duration: 6 months, extendable based on performance
Number of posts: 1

**Background:**
The Revitalising Informal Settlements and their Environments (RISE) program aims to demonstrate a new approach to water and sanitation management in urban informal settlements. RISE is an action-research program utilizing a randomized control trial (RCT) methodology involving 24 informal settlements (12 in each country). The RISE theory of change is that the water sensitive cities (WSC) approach can interrupt the fecal-oral transmission route, resulting in an improvement in human gastrointestinal health, especially for children under 5 years of age. **The overall aim of RISE is to improve the lives of men and women, boys and girls in informal settlements through improvements in human health and the environment by adopting a water sensitive cities (WSC) approach to informal settlement upgrading.** The Expected outcome is to provide the evidence that a localised, water-sensitive approach to upgrading informal settlements can deliver sustainable, cost-effective improvements in health and the environment as a complementary to ‘big pipes’ in the Asia-Pacific, paving the way for further deployments in the region and globally.

**Key responsibilities:**

1) **Undertake environmental and human biological sample processing pertaining to environmental and human health objectives**
   - Sorting, identification, and preservation of mosquito samples
   - Prepare all reagents required for sample processing, as required
   - Prepare blood, feces and environmental sample collection kits, as required
   - Analysis of human blood and feces samples through culture-based and molecular tools in line with standard operating procedures
   - Moisture content analysis for sediment and bootsock samples
   - Water sample preparation for water chemistry analysis
   - Handle and process other samples as required (for example, swabs, food samples, etc.)
   - Maintain accurate records of all samples and ensure sample traceability
   - Perform quality control and quality assurance procedures in keeping with SOPs

2) **Perform laboratory based sample analysis procedures**
   - Perform meticulous sample handling and manipulations in compliance with the standard operating procedures and ISO9001 provided by researchers. In particular,
     - Procedures associated with the isolation of microorganisms and DNA/RNA from samples including water, soil, bootsocks and faeces.
     - Performance of microscopy (Kato Katz) analyses of faecal samples for soil-transmitted helminths.
     - Run ELISAs for blood, stool, and other samples.
     - Procedures associated with the processing, preservation and analysis of blood samples.
o Procedures associated with Bioindicators analysis of water, sediment and bootsocks samples using IDEXX and Endetec
o As required, processing and analysis of other environmental samples.
o Operate and maintain specialist laboratory equipment including but not limited to filtering apparatus, vacuum manifolds and DNA/RNA isolation equipment, microscopes, autoclave, centrifuges, pipettes, horiba, etc.

● High level attention to detail with all laboratory activities and data entry activities
● Undertake associated quality assurance and quality control procedures set out by lead researchers.
● Receive all samples and initialise them using the laboratory information management system (LIMS)

3) Lead in-laboratory data management activities
● Proactively undertake a range of routine administrative tasks including stock management, equipment maintenance, and service reconciliations.
● Undertake management and maintenance of laboratory sample registers.
● Build and sustain effective working relationships with a network of internal and external clients and contacts; in particular field staff and RISE researchers.
● Support in the analysis and communication of results to central databases and with associated research staff.
● Follow all protocols related to sensitive data and data confidentiality.

4) Support and collaborate with other Lab staff
● All laboratory technicians should work collaboratively with other members of the Assessment Team in performing all laboratory and assessment-related activity and support each other in carrying out their duties.
● Participate in weekly zoom meetings: Assessment, Pathogen and Genomics team.
● Where appropriate, participate in monthly RISE Integrators meetings

Key result areas:
● Timely achievement of all assessment activities and outputs

Required qualifications and experience:

Essential:
● A Bachelor degree (or higher) in science, or a related discipline. Preference will be given to those with a Bachelors or higher degree majoring in biological or microbiological sciences.
● At least two years of experience in:
  o A microbiology laboratory that handled either environmental or clinical samples
  o Good laboratory practice and safe handling of equipment and samples;
  o Basic laboratory equipment use such as autoclaves, centrifuges, microscopes, incubators etc., including related maintenance and record keeping activities
  o Performance of Quality Assurance and Quality Control activities
  o Writing and/or following standard operating procedures.
● A willingness to receive instruction in laboratory techniques and to participate in relevant training programs
● A willingness to work outside of standard hours (9.00am – 5.00pm) to accommodate early/late arrival of samples
● A willingness to work flexibly within the laboratory environment and to participate in the rotation of tasks with other laboratory technicians

Desirable but not essential:
Experience with, or appropriate training in:
  (i) Performing molecular microbiological testing in a commercial, research or government institution.
  (ii) Using microscopes (ocular and light microscopes)
● Experience in Kato-Katz analysis
● Experience in ELISA
● Computational skills in Excel and data entry software.
● Ability to communicate in verbal and written English would be highly desirable

How to Apply
Please send your updated CV and cover letter to Nurul.Natsir@monash.edu not later than Friday 15th December 2023.