

VACANCY ANNOUNCEMENT

Job Summary

Position: Post-Doctoral Fellow in Bioinformatics (1 Post)
Reports to: Project Principal Investigator
Work station: Dar es Salaam
Apply by: 15th August 2024

Institute overview

Ifakara Health Institute (IHI) is a leading research organization in Africa with a strong track record in developing, testing and validating innovations for health. Driven by a core strategic mandate for research, training and services, the Institute's work now spans a wide spectrum, covering biomedical and ecological sciences, intervention studies, health-systems research and policy translation.

Position Summary

The **Ifakara Health Institute (IHI)** in collaboration with the Ministry of Health through the National Malaria Control Programme, the President's Office, Regional Administration, and Local Government, and the National Institute for Medical Research (NIMR) are jointly implementing the second phase of the Molecular Surveillance of Malaria in Mainland Tanzania (MSMT2) project. Meanwhile, IHI is seeking a highly motivated and skilled **Post-Doctoral Fellow in Bioinformatics** to join our team for a cutting-edge research project focused on the second phase of the MSMT project. The successful candidate will work closely with multidisciplinary researchers, public health professionals, and local and international stakeholders to strengthen and scale local capacity for molecular, genetic, genomic, and serological laboratory and data analytics to support Malaria Molecular Surveillance and other requirements based on the project's objectives. The project will ultimately support policy change and informed decision-making for Malaria Control and Elimination in Tanzania.

Duties and Responsibilities

- To develop, implement, and optimize pipelines for next-generation sequencing (NGS) data, including quality control, alignment, variant calling, annotation, and downstream analyses.
- To conduct detailed bioinformatics analyses on large-scale genomic datasets derived from malaria parasite and/or vector samples.
- To identify and characterize genetic markers associated with drug resistance, transmission patterns, and other epidemiologically significant variants.
- To integrate genomic data with clinical, epidemiological, and environmental data to provide comprehensive insights into the dynamics of malaria parasites with a focus on drug and diagnostic markers.
- To collaborate with epidemiologists, molecular biologists, and public health experts to design and conduct interdisciplinary research studies.
- To provide technical support and guidance to the MSMT2 project team in the application of bioinformatics tools and methodologies to MSMT2 and other ongoing malaria research projects.
- To support the MSMT2 team in the management of the project from conception to completion, including data collection, analysis, and reporting.

Ifakara Branch

Off Mlabani Passage
P.o. Box 53 Ifakara
Phone: +255232931572

Dar es Salaam Office

Plot 463, Kiko Avenue, Mikocheni
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Bagamoyo Branch

Inside District Hospital
P.o. Box 74 Bagamoyo
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- To support the MSMT2 team in developing new proposals and securing grants for sustainability of malaria molecular surveillance in Tanzania.
- To share insights and findings with local and international research communities through different reports, presentations, and publications in peer-reviewed journals, and to contribute to the global understanding of the epidemiology, and use of malaria molecular surveillance in malaria control or elimination strategies.

Qualification and Experience

- A Ph.D. or equivalent degree in Bioinformatics, Computational Biology, Computer Science, Genomics, Data Science, or a related field.
- Pass in the first degree with a minimum GPA of 3.8.
- Experience with research projects that involve large-scale data analysis, genomic data interpretation, and bioinformatics tool development.
- Experience with scripting languages for data analysis and automation of bioinformatics workflows.
- Experience leading or managing research projects, including coordinating with team members and other project partners.

Skills and Competencies

- Advanced skills in programming languages such as Python, R, Perl, or Java.
- Proficiency in bioinformatics tools and software, such as BLAST, BWA, GATK, and others.
- Familiarity with genomic databases such as NCBI, Ensembl, and UCSC Genome Browser.
- The candidate should have significant research contributions in bioinformatics, genomics, or computational biology evidenced by publications in peer-reviewed journals.
- Expertise in managing large datasets, including data cleaning, processing, and storage.
- Familiarity with database management systems and data integration techniques.

Equal Opportunity

IHI is an equal opportunity employer. We prohibit intentional biases or discrimination and harassment of any kind at the workplace and during recruitment. All employment decisions are based solely on job requirements and individual qualifications, and our recruitment process is governed by the labour laws of Tanzania.

Mode of Application

All candidates who meet the above job requirements should send their application letters together with their detailed curriculum vitae (CVs) showing contact addresses including email, telephone/cell phone numbers and copies of academic and professional certificates to the address below.

The **deadline** for this application is **17:00 hrs on 15 August 2024**. All e-mail application subject lines should read: **Post-Doctoral Fellow in Bioinformatics - MSMT2 - Dar. Only shortlisted applicants will be contacted for an interview.**

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**Human Resources Manager,
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Dar es Salaam
Email: recruitment@ihi.or.tz**



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