Job Opening for Research Assistants (Job Code – 40)

(All applicants must list Job code number in their application to be considered)

TIGS is a program driven research institute with a focus on solving pressing societal challenges. We are seeking applications from enthusiastic candidate to join as Research Assistant in infectious diseases surveillance and diagnostics

Website: www.tigs.res.in

Total number of positions: 02

Roles and Responsibilities:

1. Research Assistant (JC - 40A):

Role Overview

The Research Assistant will support clinical and molecular research activities focused on molecular diagnostic assay development, infectious disease surveillance, and antimicrobial resistance (AMR) research.

Key Responsibilities

- Perform DNA/RNA extraction from clinical and surveillance samples.
- Assist in the development, optimisation, standardisation, and validation of qPCR, RT-PCR, and multiplex PCR assays.
- Perform sample screening, PCR testing, and basic analysis and interpretation of results.
- Conduct molecular cloning and routine microbiological procedures, including bacterial culture and antimicrobial susceptibility testing, as required.
- Handle clinical samples, including processing, storage, inventory management, and documentation.
- Support coordination with hospitals and clinicians for clinical sample collection and surveillance studies.
- Maintain laboratory records, follow SOPs, and ensure compliance with biosafety and quality-control requirements.

Essential Qualifications

- MSc in Biotechnology, Microbiology, Medical Microbiology, Biochemistry, Molecular Biology, Life Sciences, or a related discipline.
- Experience: 2–5 years; fresh postgraduates with relevant practical skills may apply.

Desirable Experience

- Hands-on experience with qPCR, RT-PCR, conventional PCR, or multiplex PCR.
- Familiarity with clinical sample handling and BSL-2 laboratory practices.

- Experience in molecular cloning, bacterial culture, or antimicrobial susceptibility testing.
- Exposure to molecular diagnostic assay development or clinical surveillance studies.

2. Bioinformatician – Pathogen Genomics and AMR - Research Assistant (JC – 40B)

Role Overview

The Bioinformatician will support genomic surveillance and infectious disease research through computational analysis of metagenomic, genomic, and transcriptomic data from bacterial and viral pathogens.

Key Responsibilities

- Analyse NGS and metagenomic datasets for bacterial and viral pathogen detection and characterisation. Perform taxonomic classification, genome assembly, annotation, and comparative genomic analysis.
- Conduct phylogenetic analysis, variant identification, and evolutionary studies of pathogens. Identify and characterise antimicrobial resistance genes (ARGs), resistance-associated mutations, and relevant genomic elements.
- Perform bacterial and viral RNA-seq analysis, including gene expression and functional annotation, as appropriate.
- Develop reproducible bioinformatics workflows and integrate sequencing findings with clinical and epidemiological data.
- Prepare analytical reports, visualisations, and scientific outputs.

Essential Qualifications

- Master's degree in bioinformatics, Computational Biology, Biotechnology, Genomics, Life Sciences, or a related discipline, with relevant computational skills; or a PhD in a relevant field.
- Experience: 2–5 years; candidates with strong relevant project experience will be preferred.

Desirable Experience

- Hands-on experience in NGS data analysis, metagenomics, microbial genomics, or transcriptomics.
- Proficiency in Linux and scripting using Python or R.
- Familiarity with genome assembly, annotation, taxonomic profiling, and phylogenetics.
- Experience with AMR databases and tools, such as CARD, AMRFinderPlus, or ResFinder.
- Knowledge of reproducible pipelines, workflow managers, and high-performance computing.

Duration: Initially for one year.

If you are interested in applying for the above research position, please send the following documents, with a clear reference to the job number listed above & to the following email address: **jobs@tigs.res.in**

- A cover letter.
- CV with email, phone number and contact details of **two referees**.

Applicants must list Job no JC – 40A and JC – 40B in their application to be considered.

Application Deadline: November 10, 2026