

## Job Description & Key Responsibilities

We are inviting applications for a **Research Assistant** position to join our dynamic and interdisciplinary team working on the development of electrochemical sensing technologies for early and accurate disease detection. The successful candidate will support research activities at the interface of micro/nanofabrication, point-of-care (POC) development, and biomedical diagnostics.

This role offers hands-on training and experience in building and testing integrated electrochemical sensing platforms for detecting clinically relevant biomarkers such as cardiac-related biomarkers.

### Key Responsibilities:

- Assist in experimental research related to electrochemical biosensing and assay development.
- Support micro/nanofabrication and surface modification processes for electrochemical sensor preparation.
- Help with sensor testing, optimization, and performance evaluation for disease-related biomarker detection.
- Conduct electrochemical measurements in biological samples (e.g., plasma or buffer systems) and assist in troubleshooting fouling, interference, and stability issues.
- Collect, organize, and analyze experimental data using standard analytical tools and software.
- Work closely with postdoctoral fellows, and interdisciplinary collaborators including clinicians and engineers.
- Contribute to laboratory documentation, technical reports, and preparation of figures for publications and presentations.
- Maintain laboratory equipment, consumables, and ensure good laboratory practices are followed.

Successful candidate will be offered a full time (contract) as a member of the laboratory.

## Requirements

### Qualifications:

- Bachelor's or Master's degree in Biomedical Engineering, Chemistry, Materials Science, Electrical Engineering, Biotechnology, or a related field.
- Hands-on laboratory experience in electrochemistry, biosensors, or bioassays (through coursework, projects, or research experience).
- Basic knowledge of surface chemistry, biomolecular functionalization, or analytical techniques is preferred.
- Strong organizational skills and ability to follow experimental protocols carefully.
- Good communication skills and willingness to work in a multidisciplinary research environment.

### Preferred Skills:

- Familiarity with electrochemical techniques such as CV, DPV, SWV, or EIS.
- Experience with electrode preparation or surface modification (e.g., gold electrodes, carbon-based electrodes).
- Exposure to bioassay development or testing in biological samples.

- Basic data analysis using software such as Excel, Origin, Python, or MATLAB.
- Interest in biosensing, diagnostics, and translational biomedical research.

To apply, please send your cover letter, CV and names of 3 references (name, institution, email) to Prof Lim Chwee Teck at [ctlim@nus.edu.sg](mailto:ctlim@nus.edu.sg). Only shortlisted candidates will be contacted.