



ARC RESEARCH HUB FOR  
**CONNECTED**  
SENSORS  
FOR HEALTH

## **PhD Position in Smart Chemical Sensors for Biomarker Detection**

Host Institution: UNSW

Stipend: \$37,684 annually

Project Duration: 3.5 years

### **Project Overview:**

The [ARC Research Hub for Connected Sensors for Health](#) invites applications for a fully funded PhD position focused on the development of smart biochemical sensors and devices for detecting biomarkers in body fluids. This project is at the forefront of innovative health solutions, aiming to enhance personalised health monitoring through cutting-edge electrochemistry, nanomaterials, and advanced manufacturing technologies.

### **Research Environment:**

You will join a dynamic team of researchers at the ARC Research Hub for Connected Sensors for Health, a collaborative initiative between leading universities and industry partners. The Hub is dedicated to pioneering and translating research in biophysical and biochemical sensors, sustainable energy solutions, and the integration of comprehensive data analytics to secure health data for improved health outcomes.

### **Project Goals:**

- Develop intelligent electrochemical sensing devices tailored for biomarker detection.
- Collaborate with engineers, medical professionals, and data scientists to integrate these devices into clinical settings.
- Address technical challenges such as device miniaturization, energy efficiency, and user-friendly interfaces.
- Contribute to the broader research goals of connected health technologies.

### **Candidate Profile:**

- Hold a Master's degree in Chemistry/Chemical Engineering, Materials Sciences/Engineering, Biochemistry/Biomedical Engineering, Mechanical/Manufacturing Engineering, Physics, or a related field.
- Demonstrated experience in electrochemistry, analytical chemistry, sensor design and fabrication, or biorecognition is highly desirable.
- Strong analytical and problem-solving skills, with a keen interest in healthcare technology.
- Excellent written and verbal communication skills.



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**Benefits:**

- Opportunity to work in a multidisciplinary research environment with access to cutting-edge facilities.
- Collaborate with leading academic and industrial partners.
- Receive a competitive stipend of \$37,684 per annum, tax-free.
- Potential for international conference attendance and networking.

**Application Process:**

Interested candidates should submit 1) a detailed CV (including IELTS or TOEFL test results), and 2) a cover letter outlining their research interests and experience.

For further information about the project or application process, please contact Dr. Shuai He, [shuai.he@unsw.edu.au](mailto:shuai.he@unsw.edu.au)

