



CSIRO Industry PhD Program

Development of protein biomarker assays for Alzheimer's disease in the SAND and ADNeT Cohorts

The CSIRO Industry PhD Program is a four-year research training program that focuses on applied research and working with the industry sector. Apply today to undertake this exciting project at the University of Adelaide.

Key details

Who can apply?

Australian citizens or Permanent Residents, or New Zealand citizens

Industry partners

CSIRO and Biosensis

Program of Study

Doctor of Philosophy (PhD)

Total annual stipend amount

Scholarship package totalling approx. \$45,000 AUD p.a. over four years, with an additional Project Expense and Development package of \$13,000 p.a. over four years

Application closing date

13/01/2023

The University of Adelaide is partnering with the CSIRO and industry leader Biosensis to offer a position in CSIRO's pathbreaking Industry PhD Program. This program aims to produce the next generation of innovation leaders with the skills to work at the interface of research and industry in Australia. The program includes:

- admission to a PhD program at the University of Adelaide
- a Scholarship Package totalling approx. \$45,000 p.a. over four years
- a structured professional development and training program
- a Project Expense and Development package of \$13,000 p.a. over four years
- an in-business industry engagement component
- supervision by CSIRO, an industry partner, and the University

Successful students are subject to the policies, procedures, and guidelines of the University in addition to the CSIRO Industry PhD Program terms and conditions.

Project title

Development of protein biomarker assays for Alzheimer's disease in the SAND and ADNeT cohorts.

About the project

Alzheimer's disease (AD) is a neurodegenerative disease and is projected to increase by 300% over the

next thirty years. AD has become a global concern in terms of social and economic impact and there is a current need for accurate biomarkers for early detection of AD. Some of the existing biomarkers for AD are either very expensive or invasive; e.g. brain imaging (CT, MRI, PET), cerebrospinal fluid and blood biomarkers and genetic testing. Our team is investigating non-invasive protein biomarkers for Alzheimer's disease (from saliva) to help detect early brain changes leading to AD, better understand how risk factors are involved, and identify participants who meet requirements for clinical trials and studies. We aim to track participants' responses to a test drug or other intervention, such as physical exercise.

The successful candidate will work between the University of Adelaide's North Terrace Campus and the CSIRO Health and Biosecurity research unit in Adelaide, S.A. The in-business component will be undertaken on site with Biosensis in Thebarton, Adelaide.

Supervisor details:

CSIRO

Dr Wayne Leifert

CSIRO Health and Biosecurity unit

wayne.leifert@csiro.au

University of Adelaide

A/Prof Tara Pukala

Faculty of Sciences, Engineering and Technology

tara.pukala@adelaide.edu.au



Eligibility requirements

The student must:

- a) be an Australian citizen or Permanent Resident, or a New Zealand citizen;
- b) meet University PhD admission requirements;
- c) meet university English Language Requirements;
- d) not have previously completed a PhD;
- e) be able to commence the Program in the year of the offer;
- f) enrol as a full-time PhD student; and,
- g) be prepared to be located at the project location(s) that the University has approved and, if required, comply with the host university's external enrolment procedures.

The ideal candidate should have a keen interest in molecular biology techniques; namely Western blot, ELISA, proteomics, protein purification antibody manufacture, biostatistics, human samples/cohorts and biomarker analyses.

They should be able to present their results well in a team environment, communicate effectively and engage in group discussions, as well as write manuscripts for journals and have some understanding of commercialisation processes such as patenting.

A keen interest in Alzheimer's disease would be advantageous.

Application process

- a) Applicants are required to submit an expression of interest (EOI) to the University supervisor
- b) The EOI is assessed by the supervisory team and shortlisted applicants are interviewed
- c) The supervisory team nominates a preferred applicant
- d) The nominated applicant will be instructed to apply

- e) The application will then be assessed by the University of Adelaide against PhD admission criteria.
- f) The University will issue a letter of offer for the program if all conditions have been satisfied

Please note, this project is still in the contracting phase and there is no guarantee for the position until the formal collaboration agreement between the parties is in place. Nominated applicants will be notified as to when this occurs.

Further Information

Email: hdrindustryenq@adelaide.edu.au

Ph: +61 8 8313 0260

Web: [CSIRO Industry PhD](#)

For project specific information please contact [A/Prof Tara Pukala](#).