

ARC Training Centre for Environmental and Agricultural Solutions to Antimicrobial Resistance

One Health, Multiple Solutions

The ARC Training Centre for Environmental and Agricultural Solutions to Antimicrobial Resistance (CEA-StAR) is a collaborative 5-year, \$12.9m research and training program led by The University of Queensland with University of Adelaide and industry partners Calix, Cluster Biotechnology, Edenvale, Invion, MGI Tech, and Neoculi. We are working together to develop innovative solutions to mitigate the adverse impacts of antimicrobial resistance (AMR).

Antimicrobial resistance is when bacteria, viruses, fungi, and parasites evolve and become resistant to the drugs used to treat infections. It is a critical problem with significant health, environmental and socio-economic impacts. Acknowledging the interconnections between humans, plants, animals, and our shared environments, CEA-StAR is adopting a 'One Health' approach and focusing its research on the latter two areas. Working with industry partners, the Centre will investigate novel new antimicrobials, explore ways to improve the health of livestock without the use antibiotics, and identify, remove, and/or treat bacterial contamination in the environment.

Parasites cause billions of dollars in lost livestock production globally each year and have a severe impact on human health. This project will build on 4 years of collaboration with Neoculi Pty Ltd to identify new anti-protozoal leads and develop existing leads as anti-parasitic drugs through established pathways for laboratory-based efficacy testing, characterisation of modes of action, drug formulation and testing of efficacy in relevant *in vivo* models.

The Centre is offering scholarship opportunities for outstanding higher degree research candidates to work in multidisciplinary research teams from world-class universities and companies. Centre HDRs are required to participate in a unique opportunity to undertake a 12-month industry placement and mentoring with an industry partner.

What's on offer:

- An ARC Stipend Scholarship at \$38,982 per annum (starting in 2025, tax exempt and indexed annually), for up to 4 years.
- Dedicated funding to support research project and access to expertise and world-class research facilities.
- Real-world industry experience through a one-year (equivalent) placement with industry
- Access to specialised training and development opportunities, including Centre Bootcamps and conferences, with support and mentorship from academic and industry experts.
- Funding opportunities for national and international conferences, meetings, and symposia.
- Opportunity to manage and lead an industry-driven complex research project with real-world applications.

Eligibility:

- Must be an Australian/New Zealand Citizen, Australian permanent resident, or have, or are eligible to apply for a relevant international visa, and
- Must meet the eligibility criteria for enrolment in the Doctor of Philosophy program at the relevant University.

Successful applicants will have:

- Demonstrated interest or experience in *in vitro* tissue culture and molecular techniques related to antiprotozoal parasite development.
- Demonstrated interest or experience in *in vivo* models relevant to antimicrobial development.
- Relevant experience in Toxoplasma, Eimeria and/or malaria models is highly desirable but not essential to be a strong candidate for the position.
- Well-developed communication and interpersonal skills.
- Willingness and enthusiasm for working in multidisciplinary teams and environments, including industry partners.
- Demonstrated ability to work independently and be self-motivated to complete research to a high standard.

Application Documents

- Academic merit and CV (with evidence of research writing)
- Details of two (2) Academic referees
- Cover letter outlining your interest in the project and how you meet the above selection criteria.
- Evidence of English language proficiency (i.e., official IELTS, TOEFL scores)

For enquiries about the project, please contact A/Prof Danny Wilson (danny.wilson@adelaide.edu.au).

To submit an expression of interest, please send the required documents to Centre Manager at admin@ceastar.org.au no later than 10 November 2024 quoting "Identification and development of antiprotozoal drugs" in the subject.