

One Health, Multiple Solutions

The ARC Training Centre for Environmental and Agricultural Solutions to Antimicrobial Resistance (CEAStAR) is an Australian Research Council Industrial Transformation Training Centre focused on addressing the global problem of antimicrobial resistance (AMR) in the environment and agribusiness. To address this critical area, the Centre is training a new cohort of industry-ready antimicrobial research scientists and developing solutions that will deliver new antibiotics, develop alternatives to antimicrobials, and contribute to improving animal health and the environment.

Antimicrobial resistance (AMR) represents a major threat to global public health care systems. The World Health Organization has predicted 10 million AMR-related deaths annually by 2050 if no drastic measures are taken. Antifungal resistance is emerging as a major threat, and we urgently need to develop new antifungals that are not susceptible to current resistance mechanisms. This project will build on a longstanding collaboration with Neoculi Pty Ltd to identify new antifungal leads and develop existing leads as antifungal drugs through established pathways for laboratory-based efficacy testing, characterisation of modes of action and testing of efficacy in relevant *in vivo* models.

CEA StAR 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 PhD Stipend for 3.5-year (2024 rate at \$38,982) tax exempt and indexed annually)
- 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 University of Adelaide.

Successful applicants will have:

- Demonstrated research capability through thesis work, practical laboratory experience, or a combination of education and experience in *microbiology, biochemistry, molecular biology, and/or veterinary sciences*.
- Experience working with fungal species, *in vitro* and *in vivo* characterisation, antimicrobial resistance, and/or new drug development.
- 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

- Curriculum Vitae
- Academic merit (Transcripts & Testamurs)
- Translations of non-English documents
- Evidence of English Language Proficiency (Official IELTS, TOEFL, PTE, C1 results)
- Cover letter outlining your interest in the project and how you meet the above selection criteria.

For project enquiries, please contact Dr Tatiana Soares da Costa at tatianasoaresdacosta@adelaide.edu.au citing the project title “Development of novel antifungals.”

To submit an expression of interest, please send the required documents to the CEASSTAR Centre Manager at cea-star@uq.edu.au referencing “Development of novel antifungals” in the subject line.

Applications close 19 May 2024.