THE UNIVERSITY OF WESTERN AUSTRALIA

POSITION DESCRIPTION

Position Title	Research Associate
Classification	Level A
School/Division	School of Molecular Sciences
Centre/Section	ARC Centre for Plant Energy Biology
Supervisor Title	Professor
Supervisor Position Number	308783
Position Number	NEW

Your work area

UWA's School of Molecular Sciences educates the leaders of tomorrow and generates translatable, practical solutions to key global problems in chemical sciences, molecular plant sciences, medicine and health, and future materials.
Research and education in the School spans the fields of chemistry, chemical biology, biochemistry, molecular biology, molecular genetics, 'omics, nanotechnology, molecular materials, computation, synthetic biology and systems biology. Our work supports important collaborations with international partners, industry, hospitals and community stakeholders, generating high quality publications, patents and spin-out companies.

The ARC Centre of Excellence in Plant Energy Biology in Plants for Space (P4S) is a >$90 million initiative led from the University of Adelaide with more than 35 partners across Australia and around the world. P4S aims to create on-demand, zero-waste, high-efficiency plants and plant products to address grand challenges in sustainability for Space and on Earth. The multi-disciplinary team in plant, food, and sensory science; process and systems engineering; law and policy; and psychology will deliver transformative solutions for Space habitation – and create enhanced plant-derived food and bioresources to capitalise upon emergent and rapidly expanding domestic and global markets. Anticipated outcomes include industry uptake of innovative plant forms, foods, technologies, and commodities; and an ambitious education and international co-ordination agenda to position Australia as a global leader in plant-based research supporting Space habitation.

Reporting structure

Reports to: Head of School

Your role

The appointee will be expected to undertake research and development of innovative approaches to use Plant Synthetic and Molecular Biology approaches to create innovative and translatable solutions to important biological challenges that are relevant to growing and utilizing plants in space and in vertical farming on earth. Specifically, you will be working on projects focusing on building Synbio parts and tools for using plant chloroplasts as protein production factories (for producing therapeutics or nutraceuticals, or useful biomolecules such as enzymes, or for improving plant nutrient content).

This position will work with support and guidance from the Professor to engage in collaborative research projects across P4S University collaborators and with Industry partners. You will take

part in supervising students in high quality postgraduate teaching programmes, in educational outreach activities, and be involved in translation of fundamental biomolecular science to provide innovative solutions to the future of plant use on earth and beyond.

Your key responsibilities

Contributes to research outcomes within discipline or area of expertise

Designs, develops, executes and analyses research on novel approaches to modify function in plants

Writes research articles for publication in leading international journals

Sets up reliable and reproducible experimental systems and aids collaborators in development of such experiments

Keeps records and follows procedures required by the rules of funding agencies

Teaches new researchers and students the use and development of methods, application and analysis

Travel for research meetings and for research collaboration visits as required

Service and Engagement

Contribute to the governance and collegial life within the School and University and more broadly outside the institution

Work within the legislative requirements of the University and support the University's commitment to inclusion and diversity.

Contribute to team activities such as team and school meetings, strategic planning and program development

Perform other duties as directed By the Professor

Your specific work capabilities (selection criteria)

PhD in plant synthetic or molecular biology, or closely related discipline

Demonstrated experience in synthetic and/or molecular biology

Demonstrated experience in undertaking experiments with plants

Demonstrated experience in research project management

Demonstrated experience in preparing manuscripts for publication

Well-developed interpersonal skills and written and verbal communication skills

Ability to work independently, show initiative, problem solve and work productively as part of a team

Desirable

Demonstrated commitment in participating in high quality scientific publications

Experience in chloroplast transformation

Experience in GoldenGate cloning

Experience in bioinformatic analysis of sequence data

Demonstrated understanding of the specifics of plant organelle gene expression

Demonstrated experience in participation in outreach activities at school or public events

Special requirements (selection criteria)

Occasional interstate or overseas travel may be required

Some after-hours work may be required

Compliance

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including:

To learn more about the Code of Conduct, see Code of Conduct.

To learn more about Diversity, Equity and Inclusion, see Diversity, Equity and Inclusion.

To learn more about Safety, Health and Wellbeing, see Safety, Health and Wellbeing.