

Position Description

College/Division:	ANU College of Science
Faculty/School/Centre:	Research School of Biology
Department/Unit:	Division of Plant Sciences
Position Title:	Postdoctoral Fellow / Research Fellow
Classification:	Academic Level A / B
Position No:	TBC
Responsible to:	Professor Barry Pogson

PURPOSE STATEMENT:

The Postdoctoral Fellow/Research Fellow will undertake research involved on the International Wheat Yield (IWYP) partnership. This partnership focuses on genetic variation, gene expression, metabolism and growth studies. The project aims to identify new opportunities for wheat improvement through selective breeding for Energy Use Efficiency (EUE).

In aligning with the IWYP project objectives, we are looking for a molecular geneticist with experience in data analysis pipelines, mapping QTL discovery/validation, and genomic selection. Experience in project management and knowledge of systems biology and integrative wheat genetics/prebreeding would be desirable.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The Postdoctoral Fellow/Research Fellow, located within the Division of Plant Sciences, ANU College of Science will work independently under the broad supervision of the Chief Investigator reporting to Professor Barry Pogson.

The position will receive additional support from technical officers, research assistants and associate Chief Investigators at other institutions and will collaborate and provide support, advice, and as required, training to students and other staff in the ANU.

ROLE STATEMENT:

Under broad supervision the Postdoctoral Fellow/Research Fellow will:

1. Undertake and coordinate collaborative and independent research in areas of genomic, phenomic, biochemical and/or physiological experiments on plants growth under controlled environments and/or field conditions.
2. In collaboration with IWYP project partners undertake laboratory and field physiology experiments and sampling and analyse data using integrative systems biology approaches.
3. Effectively manage projects and bring them to completion through publication in peer-reviewed journals, web-based deposition of data sets and software tools, and the production of conference papers and seminars.
4. Offer guidance, advice, and supervision from within their field of expertise to higher degree students and other staff of the University.
5. Attend weekly meetings of individual labs and IWYP group members. Report their results through presentations at these meetings on a rotational basis (monthly).
6. Assist in outreach activities including to prospective students, research institutes, industry, government, the media and the general public.
7. Maintain high academic standards in all education, research and administration endeavours
8. Comply with all ANU policies and procedures and in particular those relating to work health and safety and equal opportunity.
9. Undertake other duties as required consistent with the classification level of the position.

Skill Base

A Level A Academic will normally have completed four years of tertiary study in the relevant discipline and/or have equivalent qualifications and/or research experience. They may have completed a relevant doctoral qualification. Research experience may have contributed to or resulted in publications, conference presentations, reports or technical contributions that give evidence of research potential.

A Level B Academic will normally have completed a doctoral qualification and or have equivalent qualifications or research experience. In addition he/she may be expected to have had post-doctoral experience that has resulted in publications, conference presentations, reports or technical contributions that give evidence of research ability.

SELECTION CRITERIA:

Academic Level A:

1. A PhD or progress towards the completion of a PhD in Plant Biology with a track record of research in the fields related to plant molecular biology, quantitative genetics or bioinformatics as evidenced by publications in peer-reviewed journals and conferences.
2. Knowledge of and/or experience working in a multidisciplinary team across fields of molecular genetics, physiology and quantitative genetics projects. Experience in one or more of the following would be desirable: QTL mapping, genome wide association studies, genomic selection, genotype imputation, model selection, multi trait analysis, joint linkage mapping, dimension reduction of multi-omics traits, systems biology approaches.
3. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively with a variety of staff and students in a cross-disciplinary academic environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.
4. Demonstrated knowledge of integrative wheat genetics/prebreeding including work in the lab and/or in field conditions.
5. Willingness to teach at various levels within the scope of the project, as well as the ability to assist in the supervision of students working on research projects.
6. A demonstrated high-level understanding of equal opportunity principles and a commitment to the application of these policies in a University context.

Academic Level B:

1. A PhD in Plant Biology with a track record of independent research in the field of plant molecular biology, quantitative genetics or bioinformatics as evidenced by publications in peer-reviewed journals and conferences, a record of developing and maintaining collaborations and other measures such as awards, invitations to give talks at leading conferences.
2. Demonstrated knowledge of and experience working in a multidisciplinary team across fields of molecular genetics, physiology and quantitative genetics projects. Experience in some or all of the following would be desirable: QTL mapping, genome wide association studies, genomic selection, genotype imputation, model selection, multi trait analysis, joint linkage mapping, dimension reduction of multi-omics traits, systems biology approaches.
3. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively with a variety of staff and students in a cross-disciplinary academic environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.
4. Demonstrated knowledge of and experience in integrative wheat genetics/prebreeding including work in the lab and in field conditions.
5. Experience in project management involving multidisciplinary teams both internal and external to a university setting.
6. Ability and willingness to teach at all levels within the scope of the project, as well as the ability to supervise students working on research projects.
7. A demonstrated high-level understanding of equal opportunity principles and a commitment to the application of these policies in a University context.

References: [Academic Minimum Standards](#)