

EMPLOYMENT OPPORTUNITIES

33 New Scientific Staff Sought

The Australian Centre for Plant Functional Genomics (ACPFPG) is undergoing a major expansion to extend its work into improving the tolerance of cereal crops to environmental stresses such as heat, drought, salinity and nutrient efficiency. We are seeking senior scientists to act as group leaders, postdoctoral and research fellows and technical staff. Applications are sought from scientists and technicians with expertise in many areas of plant science including genetics, genomics, physiology, breeding, cell and tissue culture, statistics and bioinformatics. The following positions will be available within three research programs described below.

4 Senior Leadership positions

Senior Lecturer to full Professor positions to head the genetics, bioinformatics, drought and nitrogen use efficiency activities.

11 Post-doctoral, Research fellow positions

Research scientists with a strong background in molecular biology, genetics, bioinformatics, statistics and plant physiology.

18 technical positions

Expert technical support. The activities span field work to laboratory and computer studies, we are seeking staff with training and interests in plant growth, tissue culture, molecular biology, statistics, bioinformatics and computer science.

Research programs

The new positions will focus on the following aspects of tolerance to abiotic stress.

An efficient hybrid system for wheat

Hybrid wheat has the potential to raise wheat production by 10 to 20% and help ensure global food security. Establishing a viable hybrid system requires the development of a reliable male sterility and restoration system to allow efficient production of hybrid seed, changing the floral architecture of wheat to increase outcrossing rates and developing new breeding strategies that can make optimal use of the new technology. Building these capabilities and technologies forms the basis for this project.

Drought tolerance and nitrogen use efficiency in wheat and barley

Extreme temperature, low water and nutrient availability can severely reduce crop plant productivity and often, challenge crop plants simultaneously. Higher plants have evolved multiple, interconnected strategies to survive unpredictable environmental fluctuations. This project will use whole genome approaches and a systemic analysis of the genetic and molecular basis of stress tolerance responses to analyse key pathways and processes responsible for maintaining yield in difficult environments. The new insights into stress responses will support the development of novel strategies to improve stress tolerance in crops.

Drought and salinity tolerance in chickpeas

Drought and salinity stresses are major limitations to chickpea production. Germplasm screening has revealed considerable variation in tolerance to these stresses and the opportunity for substantial genetic gain in breeding and selection. The objective of this project is to develop a collaborative Australia-India chickpea genomics program that will support advanced breeding strategies for abiotic stress tolerant chickpea.

About ACPFG

ACPFPG was established in 2003 by the Australian Federal Government through the Australian Research Council and the Grains Research and Development Corporation.

The new research programs will integrate with ACPFG's existing research into abiotic stresses including heat, drought, salinity and nutrient efficiency. These stresses are major causes of yield and quality loss throughout the world. In the face of variable and changing production environment, the future resilience of our food production systems will depend upon the development and delivery of new technologies, resources and knowledge about stress tolerance mechanisms.

Applications

Further information including how to apply can be found at; www.acpfg.com.au

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