

POSTDOCTORAL RESEARCH ASSOCIATE/RESEARCH FELLOW IN PHOTOSYNTHESIS (UP TO 2 POSITIONS)
SCHOOL OF BIOLOGICAL SCIENCES
FACULTY OF SCIENCE
REFERENCE NO. 592/0314

The University of Sydney is Australia's first university and has an outstanding global reputation for academic and research excellence. It employs over 7300 permanent staff, supporting over 50,000 students.

Applications are invited for a Postdoctoral Research Associate (Level A)/Research fellow (Level B) to join an Australian Research Council (ARC) Centre of Excellence (CoE) for Translational Photosynthesis – University of Sydney node lead by Associate Professor [Min Chen](#).

The centre seeks to develop and harness advances in photosynthesis research, crop bioengineering, plant phenomics and computational tools to realise increased and sustainable crop yields. The University of Sydney node will focus in improving light energy capture through following research projects:

- studying antenna complex from different photosynthetic organisms to understand how they vary their ability to absorb different parts of the solar spectrum
- developing pathways to incorporate novel chlorophyll molecules such as chlorophyll f into light harvesting complexes to extend the solar spectrum available for photosynthesis
- developing approaches to manipulate the size of light antenna, to redistribute light absorption within leaves and the crop canopy.

You will develop pathway to modify the photopigment composition of light harvesting complexes for extending the solar spectrum in order to improve the efficiency. You will also develop approach to manipulate the size of light antenna, to redistribute light absorption with leaves and the crop canopy under the supervision of Associate Professor Min Chen, as part of ARC CoE for Translational Photosynthesis including other researchers from Australian National University, University of Queensland, University of West Sydney and CSIRO Plant Industry.

You will identify candidate genes encoding the enzymes involved in the formation of red-shifted chlorophylls f and d and express the integral cyanobacterial chlorophyll antenna protein in higher plants in order to bind red-shifted chlorophylls. You will also investigate mechanisms regulating the amounts of light-harvesting complexes, and optimise the expression of cyanobacterial antenna complexes in higher plants.

To be successful in this position you will have:

- a PhD in Plant Biochemistry/Plant Molecular Biology or in a relevant field
- a demonstrated ability in an area of photosynthesis related to the research projects
- experience in the use of research methodologies relative to investigate genes encoding enzymes, chlorophyll antenna protein, and preferably in cyanobacteria
- experience in high quality publication of research papers
- excellent written and verbal communication skills
- organisation and administrative skills
- the ability to work well both autonomously and as part of a team.

Knowledge of photosynthesis light-harvesting and reactions and their co-factors is desirable, as are skills in Molecular spectrum, HPLC, and DNA/RNA, genetic technology in plants.

The positions are full-time fixed term for three years, subject to the completion of a satisfactory probation period for new appointees. The positions may be extended subject to funding and need.

Remuneration package: up to \$127K (consisting of a base salary Level A/B of \$80K-\$108K, leave loading and up to 17% employer's contribution to superannuation). Level of appointment will be commensurate with experience and qualifications. Visa sponsorship and some relocation support will be provided if required.

All applications must be submitted via the University of Sydney careers website. Visit sydney.edu.au/recruitment and search by the reference number for more information and to apply.

CLOSING DATE: 14 May 2014 (11.30pm Sydney time)

The University is an equal opportunity employer committed to equity, diversity and social inclusion. Applications from equity target groups and women are encouraged. The University of Sydney has also established a scheme to increase the number of Aboriginal and Torres Strait Islander staff employed across the institution. Applications from people of Aboriginal and Torres Strait Islander descent are encouraged.