



POSITION DESCRIPTION

RESEARCH ASSOCIATE SCHOOL OF BIOLOGICAL SCIENCES

Vacancy Reference No:	08063
Major Cost Centre:	Faculty of Science and Engineering
Organisational Unit:	School of Biological Sciences
Classification:	Research A
Salary Range:	\$51,765 – 63,047 pa full-time
Superannuation:	Employer contribution of 9% of salary
Total Remuneration Package:	\$56 424 to \$68 721 pa full-time Total remuneration package includes salary and employer superannuation contribution
Employment Type:	fixed-term , full time for one year
Supervisor (Title):	Dr Jian Qin and Prof Andy Ball
Closing date:	5.00 pm Monday 14 April 2008

KEY PURPOSE

The successful candidate will be responsible for the developing an efficient transformation system leading to the efficient transfer of genetic material amongst microalgae. In addition, they will be required to determine the molecular basis for lipid production amongst microalgae and to run a pilot scale microalgae photoreactor based to determine carbon dioxide sequestration rates.

ORGANISATIONAL ENVIRONMENT

The School of Biological Sciences is one of three Academic Organisational Units in the Faculty of Science and Engineering. The School has research and teaching foci in Microbiology, Molecular Biology, Biotechnology, Bioremediation, Plant Biology, Marine Biology, Aquaculture, Biodiversity and Ecology. The incumbent will join an interdisciplinary School of approximately 35 academic staff. The teaching and research activities of the School are supported by a range of technical and administrative infrastructure services.

These are fluid groups that provide a critical mass for exploring new research by bringing diverse approaches and resources to bear on topical issues in biology. Our school is enriched by collaborations with over four dozen local, state and Commonwealth government agencies

as well as national and overseas organizations. These connections help us keep up to date and relevant in the rapidly changing world of science.

KEY RESPONSIBILITIES AND OUTCOMES

- Construct a microalgal gene library
- Develop transformation technologies leading to the efficient transfer of genetic material amongst microalgae
- Identify the molecular basis for lipid production amongst microalgae
- Analyse the nature of the lipid produced using gas chromatography mass spectrometry
- Run a pilot scale photoreactor based to determine carbon dioxide sequestration rates
- Write research reports to the supervisors and manuscripts for journal publication

Staff responsibilities may be varied by the University in order to allow the University to respond to operational needs or requirements.

SUPERVISION RECEIVED

The incumbent will receive broad direction from his/her supervisor (Dr Qin and Professor Ball) and in the main, will determine his/her own priorities and work plans consistent with the strategic objectives of the work unit. The incumbent is also expected to operate within a framework of broad operational policies and/or external requirements. Broad outcomes are reviewed.

WORKING RELATIONSHIPS

The incumbent is expected to consult with his/her supervisor on matters where activity cannot easily be determined by reference to past practices or established procedures. The incumbent will have the assistance of a research technician to assist in the project.

UNIVERSITY EXPECTATIONS

All staff are expected to:

- contribute to the efficient and effective functioning of the team or work unit in order to meet organisational objectives. This includes demonstrating appropriate and professional workplace behaviours, providing assistance to team members if required and undertaking other key responsibilities or activities as directed by one's supervisor;
- perform their responsibilities in a manner which reflects and responds to continuous improvement; and
- familiarise themselves and comply with the University's Occupational Health and Safety and Equal Opportunity Policies.

SELECTION CRITERIA

(Note for intending applicants – applicants should address each selection criterion individually and should argue their case by citing evidence to support their claims rather than presenting a list of facts only).

Essential criteria

- Completion of a PhD in the area of molecular biology.
- Experience in developing clone libraries and the use of electroporation for transformation of protoplasts and real-time PCR.
- Experience in sequencing and sequence analyses.
- Publications in peer reviewed journals.
- Knowledge of the application of gas chromatography mass spectrometry.
- Excellent written and oral communication skills including the ability to present research papers at conferences and prepare written report to supervisors.
- Computer and numerical skills in data analysis using statistical package.

Desirable criteria

- Experience in working with algae
- Experience in large scale growth studies
- Completion of a PhD in the area of plant molecular biology.

SELECTION OF CANDIDATES

Candidates will be evaluated on merit against all of the various components that make up this position description. Assessment will take into account all information that is determined to be appropriate, eg written application, qualifications, interview, work samples, skills testing and referee reports.

The final decision regarding appointment to this position will be based on an assessment of the requirements of the total Position Description.

INFORMATION FOR PROSPECTIVE STAFF

All intending applicants should read the *Essential Information for Applicants*, available at <http://www.flinders.edu.au/employment/app.php> If you are unable to access this information on the web site, please contact the contact person nominated below.

Information about Flinders University, living and working in Adelaide and employment at the University is available at <http://www.flinders.edu.au/employment/whyflin.php>

CONTACT DETAILS

For further information about the position contact

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Flinders University
GPO Box 2100
Adelaide SA 5001, AUSTRALIA
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Or

Professor Andrew Ball
Chair in Environmental Biotechnology
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SUBMITTING AN APPLICATION

All applicants must complete an *Application for Employment Cover Sheet* available at <http://www.flinders.edu.au/hrd/html/forms/EmployApplication.doc> and lodge this with their application.

Applications, together with the *Application for Employment Cover Sheet*, may be lodged by email to jobapplications@flinders.edu.au or by post to Personnel, Policy and Practice, Flinders University, GPO Box 2100, Adelaide, South Australia 5001.

Name of Authorising Officer: Prof Warren Lawrence
Executive Dean, Faculty of Science & Engineering

Name of Authorising Officer in Human Resources: Mandy Price

Date of last update: March 2008