

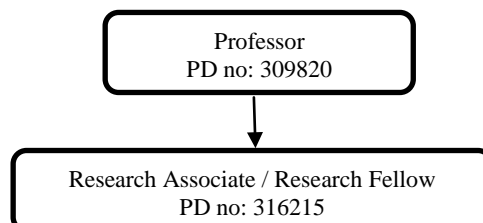


Position Title:	Research Associate / Research Fellow
Position Classification:	Level A/B
Position Number:	316215
Faculty/Office:	Faculty of Science
School/Division:	School of Molecular Sciences
Centre/Section:	ARC Centre of Excellence in Plant Energy Biology
Supervisor Title:	Professor
Supervisor Position Number:	309820

Your work area

The Epigenetics and Genomics Laboratory ([Lister lab](#)), at the University of Western, is comprised of molecular, cellular and computational biologists, forming a multi-disciplinary group undertaking a diverse range of (epi)genomics research. We utilize genomic, computational, genetic, molecular, and biochemical approaches to investigate the regulation of genomic information in animal and plant systems. The laboratory is also a member of the ARC Centre of Excellence in Plant Energy Biology, a nationally funded research centre headquartered at UWA, and a leading plant molecular research centre and focal point of plant sciences in Australia.

Reporting Structure



Your role

A post-doctoral position is available for a computational biologist to undertake research in the area of plant single cell genomics. The research will involve the analysis of large-scale transcriptomic and epigenomic datasets to investigate plant cell identity and dynamics, with a particular focus on sequencing-based single cell resolution analyses. Candidates with a background in computational biology/mathematics/statistics and experience in cell biology and advanced high-throughput genomics are encouraged to apply.

The successful applicant will collaborate closely with experimental biologists in the group, and will lead the computational analysis and interpretation of genomic datasets, in addition to contributing to experimental design and project direction.

The successful applicant will be supervised by Professor Ryan Lister and work closely with colleagues working in the Lister lab and at the ARC Centre of Excellence in Plant Energy Biology.

Key responsibilities

Lead the computational analysis and interpretation of large-scale transcriptomic and epigenomic datasets to investigate plant cell identity and dynamics, with a particular focus on sequencing-based single cell resolution analyses.

Collaborate closely with experimental biologists in the group, including contribution to experimental design and project direction.

Establish computational approaches for single cell genomics data analysis specific to the research project, and where appropriate aid colleagues in the use of such approaches.

Keep high quality records and use systems for fully reproducible recording of data analysis processes and results, for example R Markdown.

Write research articles for publication in leading international journals.

Teach and supervise new researchers and students in the use and development of computational research approaches relevant to his/her project.

Other duties as directed.

Your specific work capabilities (selection criteria)

PhD in Bioinformatics, Computer Science, Molecular Biology or related discipline

Good programming skills in at least one language (e.g. R, Perl, C++, Java) is essential

Previous experience in analysis of next generation sequencing data and statistical modeling of high-dimensional data is highly desirable

Expertise in regulatory genomics and transcriptomics is very important, and genome scale integrative analysis of experimental datasets is highly desirable (e.g. RNA-seq, ChIP-seq, DNA methylation, chromatin accessibility, sequence analysis). An understanding of the experimental techniques underlying such genomics experiments is advantageous

Special Requirements (selection criteria)

Willingness to travel

Compliance

Workplace Health and Safety

All supervising staff are required to undertake effective measures to ensure compliance with the Occupational Safety and Health Act 1984 and related University requirements (including Safety, Health and Wellbeing Objectives and Targets).

All staff must comply with requirements of the Occupational Safety and Health Act and all reasonable directives given in relation to health and safety at work, to ensure compliance with University and Legislative health and safety requirements.

Details of the safety obligations can be accessed at <http://www.safety.uwa.edu.au>

Equity and Diversity

All staff members are required to comply with the University's Code of Ethics and Code of Conduct and Equity and Diversity principles. Details of the University policies on these can be accessed at http://www.hr.uwa.edu.au/publications/code_of_ethics, <http://www.equity.uwa.edu.au>

Position Approvals

Approvals are now electronic. No signature section needed.