



RESEARCH FELLOW (BIOCHEMISTRY – SIGNALLING NETWORK LABORATORY)

DEPARTMENT/UNIT	Department of Biochemistry and Molecular Biology
FACULTY/DIVISION	Medicine Nursing and Health Sciences
CLASSIFICATION	Level A
DESIGNATED CAMPUS OR LOCATION	Clayton campus

ORGANISATIONAL CONTEXT

Everyone needs a platform to launch a satisfying career. At Monash, we give you the space and support to take your career in all kinds of exciting new directions. You'll have access to quality research, infrastructure and learning facilities, opportunities to collaborate internationally, as well as the grants you'll need to publish your work. We're a university full of energetic and enthusiastic minds, driven to challenge what's expected, expand what we know, and learn from other inspiring, empowering thinkers. Discover more at www.monash.edu.

The **Faculty of Medicine, Nursing and Health Sciences** is the University's largest research faculty. World-class researchers work across disciplines including laboratory-based medical science, applied clinical research, and social and public health research. The Faculty is home to a number of leading medical and biomedical research institutes and groups, and has contributed to advances in many crucial areas. Our expertise in life sciences and biomedicine is recognised both nationally and internationally.

The **School of Biomedical Sciences** is the largest of the eight Schools within the Faculty and is located at the University's Clayton campus. The School conducts a diverse range of undergraduate and graduate teaching, research and commercial activities. The School is highly active in research, with numerous grants from international and Australian sources including the National Health and Medical Research Council (NHMRC), Australian Research Council (ARC), National Institutes of Health (NIH) and other public sector funding bodies. The School has seven departments and many different sources of income, including teaching.

The **Department of Biochemistry & Molecular Biology** is the largest of the five departments in the School of Biomedical Sciences. Biochemistry and molecular biology are closely-related disciplines which study the chemical components of living cells, including the genetic material, in order to understand biological processes and how these are altered in disease.

Research and teaching in the department encompasses six broad themes: cell biology, signal transduction, host/pathogen interaction, structural biology, immunology and developmental biology. Our research is highly relevant to major human diseases and pathological processes, including infection, inflammation, diabetes and obesity, developmental and degenerative disorders, cardiovascular disease, and cancer. The Department has been ranked as the premier Department in its discipline since the inception of ARC benchmarking of Australian Departments in 1998.

Further details about the department can be found at www.monash.edu/discovery-institute/departments/biochemistry-and-molecular-biology.

POSITION PURPOSE

A Level A research-only academic is expected to contribute towards the research effort of the University and to develop their research expertise through the pursuit of defined projects relevant to the particular field of research.

The postdoctoral **Research Fellow** will be appointed in the Signalling Network Laboratory and undertake research focusing on the PEAK family of pseudokinase scaffold proteins, comprising PEAK1/SgK269, PEAK2/SgK223 and PEAK3. These scaffolds perform fundamental roles in regulating signalling in normal cells, with PEAK1 acting as a master regulator of EGFR signal output, and also have oncogenic functions in breast, colorectal, pancreatic and other cancers. The project will apply a multidisciplinary strategy, integrating signalling analyses, proteomics, computational modelling and both cell and synthetic biology to build a systems-level understanding of how the combinatorial interaction of PEAK family scaffolds generates diverse signals in order to specify particular biological endpoints. This will represent a fundamental breakthrough at the interface of cell biology and modelling of cell signalling networks.

Reporting Line: The position reports to Head, Signalling Network Laboratory

Supervisory Responsibilities: This position may provide supervision to undergraduate and postgraduate research students and a research assistant, in consultation with the Head, Signalling Network Laboratory

Financial Delegation: Not applicable

Budgetary Responsibilities: Not applicable

KEY RESPONSIBILITIES

Specific duties required of a Level A research-only academic may include:

1. The conduct of research under limited supervision either as a member of a team or, where appropriate, independently and the production or contribution to the production of conference and seminar papers and publications from that research
2. Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise
3. Limited administrative functions primarily connected with the area of research of the academic
4. Development of a limited amount of research-related material for teaching or other purposes with appropriate guidance from other staff
5. Occasional contributions to teaching in relation to their research project(s)
6. Experimental design and operation of advanced laboratory and technical equipment or conduct of advanced research procedures
7. Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental, school and/or faculty meetings and/or membership of a limited number of committees
8. Advice within the field of the staff member's research to postgraduate students
9. Other duties as directed from time to time

KEY SELECTION CRITERIA

Education/Qualifications

1. The appointee will have:

- A doctoral qualification in cell biology or cell signalling or relevant discipline or a closely related field.

Knowledge and Skills

2. Demonstrated analytical and manuscript preparation skills; including a track record of first/senior author refereed research publications
3. Ability to solve complex problems by using discretion, innovation and the exercise diagnostic skills and/or expertise
4. Well-developed planning and organisational skills, with the ability to prioritise multiple tasks and set and meet deadlines
5. Excellent written communication and verbal communication skills with proven ability to produce clear, succinct reports and documents
6. A demonstrated awareness of the principles of confidentiality, privacy and information handling
7. A demonstrated capacity to work in a collegiate manner with other staff in the workplace
8. Demonstrated computer literacy and proficiency in the production of high level work using software such as Microsoft Office applications and specified University software programs, with the capability and willingness to learn new packages as appropriate
9. Knowledge and practical skills in the fields of mammalian cell biology and/or intracellular signal transduction are essential

OTHER JOB RELATED INFORMATION

- Travel to other campuses of the University may be required
- There may be a requirement to work additional hours from time to time
- There may be peak periods of work during which taking of leave may be restricted

GOVERNANCE

Monash University expects staff to appropriately balance risk and reward in a manner that is sustainable to its long-term future, contribute to a culture of honesty and integrity, and provide an environment that is safe, secure and inclusive. Ensure you are aware of and adhere to University policies relevant to the duties undertaken and the values of the University. This is a standard which the University sees as the benchmark for all of its activities in Australia and internationally.