



POSITION DESCRIPTION

Department of Physiology
Faculty of Medicine, Dentistry and Health Sciences

Research Fellow in Cardiac Development

POSITION NO	0048875
CLASSIFICATION	Level A
WORK FOCUS CATEGORY	Research Focused
SALARY	\$72,083 - \$97,812 p.a. (pro rata)
SUPERANNUATION	Employer contribution of 9.5%
WORKING HOURS	Full-time
BASIS OF EMPLOYMENT	Fixed Term position available for 18 months with the possibility of renewal
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers , under 'Job Search and Job Alerts', select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Assoc Professor Kelly Smith Tel +61 3 834 45934 kelly.smith1@unimelb.edu.au <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our websites:
about.unimelb.edu.au/careers

Position Summary

An individual at the level of Research Fellow is required to join a team working for Associate Professor Kelly Smith. The team is focused on studying the genes and pathways involved in regulating cardiac development and function using zebrafish and mouse models. The position will investigate the genetics and cellular aspects of left-right patterning and/or trabeculation of the heart using the zebrafish model.

The Research Fellow role will provide support for research projects and programs within the laboratory, including administration and maintenance of zebrafish, mouse lines, stocks, data management as well as new staff/student training. In addition, significant contributions to research grants, publications and other laboratory outputs as well as financial management responsibilities is required.

The position reports to Associate Professor Kelly Smith.

1. Key Responsibilities

1.1 RESEARCH AND RESEARCH TRAINING

- ▶ Conducting independent experimental investigations under the guidance of the team leader.
- ▶ Liaising with other members of the laboratory, the Department and the broader research community.
- ▶ To prepare data for publication in high quality international journals.
- ▶ To supervise more junior staff and students where necessary.
- ▶ To contribute to the smooth running of a busy and productive laboratory.

1.2 LEADERSHIP AND SERVICE

- ▶ Actively participate at School and/or Faculty meetings and with guidance, contribute to planning activities or committee work to support capacity-building in the School/discipline.
- ▶ Identification of sources of funding to support individual or collaborative projects, relating to teaching, research and engagement practice in the discipline
- ▶ Effective training of research support staff where required
- ▶ Participate in community and professional activities related to the relevant disciplinary area
- ▶ Effective demonstration and promotion of University values including diversity and inclusion and high standards of ethics and integrity
- ▶ Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 5.

2. *Selection Criteria*

2.1 QUALIFICATIONS

- ▶ **For appointment as Research Fellow:** Completion of PhD and significant demonstrated relevant experience in the area of developmental, molecular or cell biology.

2.2 ESSENTIAL

- ▶ Experience performing gene and protein expression studies (such as in situ hybridization, immunohistochemistry, confocal imaging, Western blotting, qRT-PCR)
- ▶ Experience in molecular biology (PCR, cloning, sub-cloning)
- ▶ Ability to achieve and maintain international benchmark standards of excellence in research.
- ▶ Ability to work independently but in the context of a communal laboratory.
- ▶ Sound organizational and problem-solving skills.
- ▶ Demonstrable enthusiasm for developmental biology research
- ▶ Strong evidence of ability and desire to build an academic career trajectory.
- ▶ Strong commitment to publication productivity as a means to successful career progression.
- ▶ Evidence of emerging local academic standing through research contributions.
- ▶ Demonstrated ability to articulate research through presentation in a public forum including conferences.

2.3 DESIRABLE

- ▶ Demonstrated potential to supervise or co-supervise and mentor undergraduate, honours and graduate diploma stage postgraduate students where appropriate.
- ▶ Experience with in vivo models, particularly transgenic and/or knockout models
- ▶ Experience with the zebrafish model
- ▶ Demonstrable interest in cardiac biology and/or cell biology
- ▶ Experience in cell culture and transfection, protein biochemistry and/or bioinformatics

2.4 SPECIAL REQUIREMENTS

- ▶ A willingness to work occasionally outside of normal hours (e.g. occasional weekends and evenings) where the completion of laboratory experiments is deemed necessary.

3. *Equal Opportunity, Diversity and Inclusion*

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the University's People Strategy 2015-2020 and policies that address diversity and inclusion, equal

employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Growing Esteem.

4. Occupational Health and Safety (OHS)

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<http://safety.unimelb.edu.au/topics/responsibilities/>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

5. Other Information

5.1 DEPARTMENT OF PHYSIOLOGY

<https://biomedicalsciences.unimelb.edu.au/departments/physiology>

The Department of Physiology at the University of Melbourne was established in 1862 and has a proud history associated with some of the great names in Australian science. Our research explores the territory between genes and body function with special relevance to the health and diseases affecting the skeletal muscle, heart and blood vessels, liver and adipose tissue, the brain and nerves, the gastrointestinal system and the processes of intergenerational disease transmission. Our core research themes are cardiovascular, metabolism, muscle, and neuroscience. A remarkable breadth and depth of research expertise and equipment underpins our research as exemplified by the human exercise and metabolic laboratories, experimental models of disease, cellular and subcellular electrophysiology and imaging, cellular and molecular laboratories, and core facilities for viral vector gene research and the newly established metabolic phenotyping suite for small animals. We also have strong collaborative links with academic Departments within the School of Biomedical Sciences, research institutes, other universities both nationally and internationally and partnerships with clinical teams. We receive substantial research funding from a wide range of government and commercial sources.

Our goal is to remain at the forefront of scientific research aimed at understanding the function of the human body in health and disease, employing novel and imaginative research methods.

A second strategic goal is the ongoing development of links between our teaching and research. We invest in the professional development of our undergraduate students and equip them with critical thinking skills, knowledge and techniques useful in a range of future careers including research and academia. Physiology teaching plays a pivotal role in biomedical sciences and the major is amongst the most popular for Science or Biomedicine students. We are widely recognised for our innovation in teaching, both through the development of online resources and in the use of active learning approaches in face-to-face teaching. Constant review and refinement of the curriculum and educational methods ensures that we best prepare students

for scientific independence as they enter graduate and postgraduate professional and research careers.

The School of Biomedical Sciences is served by an Undergraduate Programs Committee (UPC) that regularly brings together teaching representatives from all School of Biomedical Sciences departments to discuss issues related to curriculum development, to share best practice in teaching and learning, and to develop shared programs in student engagement and feedback.

5.2 FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

www.mdhs.unimelb.edu.au

The Faculty of Medicine, Dentistry & Health Sciences has an enviable research record and is the University of Melbourne's largest faculty in terms of management of financial resources, employment of academic and professional staff, teaching of undergraduate and postgraduate (including research higher degree) students and the conduct of basic and applied research. The Faculty's annual revenue is \$628m with approximately 55% of this income related to research activities.

The Faculty has a student teaching load in excess of 8,500 equivalent full-time students including more than 1,300 research higher degree students. The Faculty has approximately 2,195 staff comprising 642 professional staff and 1,553 research and teaching staff.

The Faculty has appointed Australia's first Associate Dean (Indigenous Development) to lead the development and implementation of the Faculty's Reconciliation Action Plan (RAP), which will be aligned with the broader University – wide plan. To enable the Faculty to improve its Indigenous expertise knowledge base, the Faculty's RAP will address Indigenous employment, Indigenous student recruitment and retention, Indigenous cultural recognition and building partnerships with the Indigenous community as key areas of development.

5.3 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at <http://about.unimelb.edu.au/careers>.

5.4 GROWING ESTEEM, THE MELBOURNE CURRICULUM AND RESEARCH AT MELBOURNE: ENSURING EXCELLENCE AND IMPACT TO 2025

Growing Esteem describes Melbourne's strategy to achieve its aspiration to be a public-spirited and internationally-engaged institution, highly regarded for making distinctive contributions to society in research and research training, learning and teaching, and engagement. <http://about.unimelb.edu.au/strategy-and-leadership>

The University is at the forefront of Australia's changing higher education system and offers a distinctive model of education known collectively as the Melbourne Curriculum. The new educational model, designed for an outstanding experience for all students, is based on six broad

undergraduate programs followed by a graduate professional degree, research higher degree or entry directly into employment. The emphasis on academic breadth as well as disciplinary depth in the new degrees ensures that graduates will have the capacity to succeed in a world where knowledge boundaries are shifting and reforming to create new frontiers and challenges. In moving to the new model, the University is also aligning itself with the best of emerging European and Asian practice and well-established North American traditions.

The University's global aspirations seek to make significant contributions to major social, economic and environmental challenges. Accordingly, the University's research strategy *Research at Melbourne: Ensuring Excellence and Impact to 2025* aspires to a significant advancement in the excellence and impact of its research outputs. <http://research.unimelb.edu.au/our-research/research-at-melbourne>

The strategy recognises that as a public-spirited, research-intensive institution of the future, the University must strive to make a tangible impact in Australia and the world, working across disciplinary and sectoral boundaries and building deeper and more substantive engagement with industry, collaborators and partners. While cultivating the fundamental enabling disciplines through investigator-driven research, the University has adopted three grand challenges aspiring to solve some of the most difficult problems facing our world in the next century. These Grand Challenges include:

- ▶ Understanding our place and purpose – The place and purpose grand challenge centres on understanding all aspects of our national identity, with a focus on Australia's 'place' in the Asia-Pacific region and the world, and on our 'purpose' or mission to improve all dimensions of the human condition through our research.
- ▶ Fostering health and wellbeing – The health and wellbeing grand challenge focuses on building the scale and breadth of our capabilities in population and global health; on harnessing our contribution to the 'convergence revolution' of biomedical and health research, bringing together the life sciences, engineering and the physical sciences; and on addressing the physical, mental and social aspects of wellbeing by looking beyond the traditional boundaries of biomedicine.
- ▶ Supporting sustainability and resilience – The sustainability and resilience grand challenge addresses the critical issues of climate change, water and food security, sustainable energy and designing resilient cities and regions. In addition to the technical aspects, this grand challenge considers the physical and social functioning of cities, connecting physical phenomena with lessons from our past, and the implications of the technical solutions for economies, living patterns and behaviours.

Essential to tackling these challenges, an outstanding faculty, high performing students, wide collaboration including internationally and deep partnerships with external parties form central components of Research at Melbourne: Ensuring Excellence and Impact to 2025.

5.5 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <http://www.unimelb.edu.au/governance>