Staff Scientist and Postdoctoral Positions

Department of Medicine and Radiology, Faculty of Medicine, Dentistry and Health Sciences.
The University of Melbourne

The NHMRC-sponsored Centre of Research Excellence (CRE) in Neuroimaging – an Australia-wide research collaboration – and the Centre of Quantitative Neuroimaging, Department of Radiology – with sponsorship from the NIH and industry – invites applications for several positions at the rank of Staff Scientist or Postdoctoral Fellow (depending on qualifications and overall programmatic need) to begin March 1, 2020 or on a mutually agreed date thereafter:

* CRE Manager
* Software Engineer (Full Stack)
* Software Engineer (Frontend & Mobile)
* Software Engineer (Backend & Server, Network and Hosting Environment)
* Health Economist
* MR Scientist Perfusion w/ expertise in either ASL (preferred), DSC or DCE
* MR Scientist Susceptibility w/ expertise in QSM and STI
* MR Scientist Sequence Development w/ expertise in EPIC, IDEA (preferred) or similar
* MR Scientist Image Reconstruction w/ expertise in ICE (preferred) or similar
* Computer Scientist w/ expertise in Deep Learning
* Computer Scientist w/ expertise in analyzing brain tumor imaging data sets
* Computer Scientist w/ expertise in analyzing stroke imaging data sets

The successful candidates for these positions will be joining the Department of Radiology (both Centre of Quantitative Neuroimaging and CRE of Neuroimaging) at the University of Melbourne.

The goal of the Centre for Research Excellence in Neuroimaging is to recruit a team of clinician scientists, engineers, physicists, and data scientists to enhance neuroimaging research across Australia. This cluster hiring initiative represents a major investment in neuroimaging science.

Interested persons should include: **1.** a cover letter expressing interest and stating the position for which applying; **2.** a detailed curriculum vitae, including academic and professional experience and peer reviewed publications (please include PDF copies of a maximum of your three most significant, peer-reviewed, published manuscripts); **3.** a statement of research; **4.** a statement of teaching experience (if available); **5.** a statement about grantsmanship experience (incl. brief description of successful grant applications and the applicant's role).

The review of applications will be continued until the position are filled. Applications received before February 1, 2020 will be given priority review. We foster a values-based culture of innovation and creativity to enhance the research performance of the University and to achieve

excellence in teaching and research outcomes. We invest in developing the careers and wellbeing of our students and staff and expect all our staff to live up to our values of: collaboration and teamwork; compassion; respect; integrity; and accountability.

Please direct inquiries to CRE Director, Prof Roland Bammer at **rbammer@unimelb.edu.au**

Qualifications

- (with the exception of the software engineer positions): PhD or (if postdoctoral fellow) substantial progress towards PhD in Engineering, Physics, Computer Science or equivalent
- Evidence of emerging local academic standing through research contributions
- Excellent interpersonal skills and work ethic
- Ability to work effectively as part of a multi-disciplinary team
- Good attention to detail, process-driven and excellent data maintenance skills
- Ability to independently identify and solve problems
- Good organisational skills, nimble, and the ability to conduct high quality research with limited supervision
- Excellent written and oral communication skills
- (with the exception of the software engineer positions); Basic command of medical terminology to allow communication with healthcare specialists in a multi-disciplinary team
- (for MR scientist positions): Solid background in MR Physics (ideally with some teaching background)
- (except CRE Manager and Health Economist position): Profound skills in object-oriented programming (C++, Objective C, ...)
- (for all scientist positions): Advanced expertise is Linux and Windows
- (for all scientist positions): Advanced expertise in rapid prototyping software (Python preferred)
- (for all scientist positions): Advanced Imaging Processing skills
- (with the exception of the software engineer positions): Expertise of Medical Imaging Data systems and standards (e.g. PACS, DICOM)
- (with the exception of the software engineer positions): Basic knowledge of anatomical terminology, in particular neuroanatomy
- (for all scientist positions & CRE manager - desirable): track record in successful grantsmanship
- (for all scientist positions & CRE manager - desirable): track record of public speaking and teaching experience
- (for all positions - desirable): familiarity with project management practices, incl. AGILE

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.

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.

Other Information

Department of Radiology

The Department of Radiology is a part of the Royal Melbourne Hospital Academic Centre – comprising departments of Medicine, Surgery, Psychiatry, Radiology and the Clinical School. The Department of Radiology is unique amongst the clinical departments of the Faculty of Medicine, Dentistry & Health Sciences in that it is responsible for the teaching of undergraduate radiology within all of the Clinical Schools of The University of Melbourne. In addition, the department is responsible for the postgraduate training program in radiology throughout Victoria.

The Department of Radiology is a self-funded department within the Faculty of Medicine, Dentistry and Health Sciences. Geographically, it is situated within The Royal Melbourne Hospital Department of Radiology. The Head of the Department, Professor Patricia Desmond, has a dual appointment. She is responsible both for The University of Melbourne Department of Radiology and for The Royal Melbourne Hospital Department of Radiology.

Melbourne Academic Centre

The Melbourne Academic Centre comprises the Departments of Medicine, Obstetrics and Gynaecology, Surgery and Radiology, as well as the Clinical School. The aims of the Academic Centre are to optimise the academic activities involving teaching and research, and enhance our interactions with the Faculty, the University and the host hospitals.

Melbourne Medical School

http://www.medicine.unimelb.edu.au/

The Melbourne Medical School is organised into eight academic centres comprising more than 20 departments and five general clinical schools. It also supports the Medical Education Unit.

The school is closely associated with major teaching and other hospitals (http://mdhs.unimelb.edu.au/our-health-network), general practices and community health centres in metropolitan, regional and rural Victoria, which provide clinical education for medical students.

Through its academic centres and departments, the school also maintains a close relationship with major medical research institutes (http://mdhs.unimelb.edu.au/research-institutes).

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.

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.

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.

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