



POSITION DESCRIPTION

School of Chemical and Biomolecular Engineering
Melbourne School of Engineering

Research Fellow in Platelet Activation and Binding

In line with the special measure H103/2014 provided for under section 12 of the Equal Opportunity Act 2010 (VIC), the Melbourne School of Engineering strongly encourages applications from suitably qualified female candidates.

POSITION NO	0044584
CLASSIFICATION	Research Fellow Grade 2 (Level A)
SALARY	\$69,148 - \$93,830 p.a
SUPERANNUATION	Employer contribution of 9.5%
WORKING HOURS	Full Time (1.0FTE)
BASIS OF EMPLOYMENT	FIXED TERM FOR 1 YEAR Fixed term contract type: Externally funded
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 , select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Dave Dunstan Tel +61 3 8344 8261 Email davided@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

The project involves a collaboration between CSL Limited, The University of Melbourne and RMIT University. Funding is through the ARC Linkage Grants scheme (ARC LP160100786).

The aim of the project is to develop a comprehensive experimental program to directly measure platelet interaction and binding over a range of activation levels. The project will develop a key experimental understanding of how the state of platelet activation and their ability to bind are determined by local agonist concentrations, the shear environment, mechanical stresses and platelet history. Preliminary experiments to directly measure platelet interactions using an optical trap in a microfluidic cell have been undertaken. The experimental setup allows the individual platelets to be trapped in physiological solutions while varying critical activation parameters and monitoring the platelet interactions over a range of flow rates. Further to these experiments, rheological characterisation of the platelet suspensions will be undertaken using rheo-fluorescence microscopy.

You will conduct independent research, leading to the preparation and publication of research outcomes in conferences and journals. You will be located in the Department of Chemical Engineering in the Melbourne School of Engineering, and will join the Academic staff at the University of Melbourne. You will be expected to be an active member of the School, collaborating with other researchers. You may undertake small amounts of teaching and research supervision directly related to your area of research, as required.

The Melbourne School of Engineering is strongly committed to supporting diversity and flexibility in the workplace. Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position.

The University plan seeks to increase the diversity of the workforce and the representation of women in areas they have been traditionally under-represented. Consistent with this, the School is seeking to increase the representation of women in the academic workforce across engineering disciplines. Under a Special Measure, under Section 12 (1) of the Equal Opportunity Act 2010 (Vic) the School is seeking to lift the representation of women from 20% in 2014 to at least 25% over the next 5 years, and strongly encourages applications from suitably qualified female candidates.

1. Selection Criteria

1.1 ESSENTIAL

- ▶ PhD in Physical Chemistry or Chemical Engineering, or equivalent;
- ▶ Well-developed and an outstanding background in optical methods, microfluidics and or rheology
- ▶ Demonstrated capacity to communicate research concepts to technical and non-technical audiences;
- ▶ A track record of quality research in the discipline as evidenced by research publications in leading conferences and journals commensurate with opportunity;
- ▶ Excellent ability in analysing data, problem solving, excellent research records keeping skills and developing new experimental protocols;

- Demonstrated ability to perform independent research and a commitment to interdisciplinary research;
- Excellent communication and interpersonal skills, including an ability to interact with internal and external stakeholders (academic, industry and support staff), and to work collaboratively in a multi-disciplinary team environment;
- Demonstrated experience in using initiative, working with minimal supervision and ability to prioritise tasks to achieve project objectives within timelines;
- Excellent ability to work co-operatively in a multi-disciplinary team environment and liaise with associates from both industry and academia;
- Excellent written and verbal communication skills, demonstrated by presentation of research results at conferences, internal forums and through manuscript submissions.

1.2 DESIRABLE

- A track record of publication in a related field
- Experience in supervision of students and/or research assistants;
- Experience in the successful completion of ethics applications and submission of grant applications;
- Experience in a leadership role within a research team.
- Ability to structure, engage and present information clearly to various audiences;

2. *Special Requirements*

None

3. *Key Responsibilities*

3.1 RESEARCH – ADVANCEMENT OF THE DISCIPLINE

- Independently plan and carry out research on the nominated research project and work towards completion of the aims of the project;
- Develop effective timelines and milestones based on goals of the research programme;
- Perform data and microstructure analysis, and be responsible for qualitative and statistical analysis of research data and to communicate this information to the Chief Investigators and collaborators;
- Regularly write technical reports on the outputs of the experiments conducted, and maintain accurate and detailed records of all experiments conducted;
- Participate in preparation of manuscripts for publication in peer-reviewed journals;
- Liaise effectively internal and external collaborators and stakeholders;
- Assist other researchers in carrying out experiments in order to work as a team and further the department's research output;
- Contribute to the development of the Department's strong research program in blood rheology

- ▶ Develop independent research and apply for grants;
- ▶ Perform administrative functions primarily connected with the research project, including generating written summaries of discussions, developing detailed research plans with the project investigators and writing these into a project plan, and contributing to ethics submissions.

3.2 TEACHING AND LEARNING

- ▶ Contribute to teaching, training, scientific mentoring and supervision of students;
- ▶ Supervise junior research staff in the appointee's area of expertise;

3.3 ENGAGEMENT

- ▶ Active participation in some outreach activities relating to research and scholarship;
- ▶ Effective liaison with external networks to foster collaborative partnerships;
- ▶ Involvement in professional activities, including consultations and referrals;
- ▶ Present experimental results at local, national and/or international forums;
- ▶ Attend and actively participate in departmental seminars, meetings and/or committee memberships.

3.4 SERVICE AND LEADERSHIP

- ▶ Undertake administrative duties and general laboratory duties including maintenance of the laboratory and equipment and ordering of supplies;
- ▶ Lead and contribute in the preparation and submission of competitive grant applications relating to the appointee's research program;
- ▶ Plan experimental programs and supervise the progress of research program of Research Fellows, Students and Research Assistants;

3.5 OTHER

- ▶ Perform other tasks as requested by the supervisor or the Head of the School;
- ▶ Undertake Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 5.

4. *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.

5. 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/people/community/responsibilities-of-personnel>

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

6. Other Information

6.1 DEPARTMENT OF CHEMICAL AND BIOMOLECULAR ENGINEERING

<http://www.chemeng.unimelb.edu.au/>

The Department of Chemical and Biomolecular Engineering at the University of Melbourne has an excellent international research reputation and an outstanding record in attracting research funding. The Department currently hosts >55 research only academics and >90 PhD students and this large group will provide many opportunities for the research fellow to develop collaborations external to this project. In particular, the strong group of early career researchers, including DECRA's, ARC Superscience Fellows and McKenzie Fellows, will provide significant peer support. Further training will be facilitated by access to an active Departmental Seminar program. Key infrastructure within the Department can be accessed by all staff through an electronic booking system.

6.2 MELBOURNE SCHOOL OF ENGINEERING

www.eng.unimelb.edu.au/

The Melbourne School of Engineering is one of Australia's leading Engineering Schools and aims to be the school of choice for the highest performing students and research staff in Australia and within the Time Higher Education Supplement top twenty Schools of Engineering internationally by 2020.

6.3 THE UNIVERSITY OF MELBOURNE

The University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The University offers staff many benefits and prospective staff are encouraged to view the following web links:

www.unimelb.edu.au

www.growingesteem.unimelb.edu.au

www.unimelb.edu.au/careers

6.4 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 www.unimelb.edu.au/governance.