POSITION DESCRIPTION

THE UNIVERSITY OF MELBOURNE

School of Chemistry

Faculty of Science

Research Fellow in Polymer Synthesis

POSITION NO	0045603
CLASSIFICATION	Level A
SALARY	$69,148* - $93,830 p.a. (*PhD entry Level A.6 - $87,415 p.a.)
SUPERANNUATION	Employer contribution of 9.5%
WORKING HOURS	Full-time
BASIS OF EMPLOYMENT	Fixed-term for one year
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	Dr Georgina Such Tel +61 3 90355258 Email gsuch@unimelb.edu.au *Please do not send your application to this contact*

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

Position Summary

This position is a research role focused on the synthesis of new biologically responsive polymers and their assembly into functional nanoparticles for application in vaccine delivery.

The Research Fellow will be based in the Functional Materials Group in the School of Chemistry under the supervision of Dr Georgina Such. The appointee will be responsible for the synthetic parts of the research program including synthesis of stimuli-responsive monomers, polymers and self-assembly of nanoparticles. This role involves working with a broad interdisciplinary team of collaborators working from polymer synthesis through to cell biology. In particular, the position will involve significant collaboration with biological researchers Dr Justine Mintern (Bio21, The University of Melbourne) and Dr Angus Johnston (Monash Institute of Pharmaceutical Sciences) to investigate the biological interactions of the nanoparticles.

In addition, the appointee will be expected to play a significant role in maintaining OHS standards in the Functional Materials laboratories as well as mentoring postgraduate students.

1. Key Responsibilities

Minimum Standards of performance for Level A are outlined in Schedule B – Minimum Standards for Academic Levels.

- Synthesis and characterisation of a range of responsive polymers including new self-immolative polymers
- Assembly of nanoparticles and characterisation of their material properties
- Develop high-impact industry reports and papers based on research findings for presentation at conferences and seminars, publications, and for patents
- Contribute to the preparation of research proposal submissions to external funding bodies, or where appropriate prepare them individually
- Keep abreast of developments, activities and protocols in area of expertise through liaison with staff and peers, reading relevant literature and participation at meetings and seminars
- Manage external collaborations for the Functional Materials Group
- Undertake administrative functions associated with the Functional Materials Group
- Provide guidance and co-supervision and mentorship to postgraduate students within the Functional Materials Laboratories
- Mentoring students on best OHS practice
- Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at School of Chemistry and/or Faculty meetings

2. Selection Criteria

2.1 ESSENTIAL

- A PhD in a field relevant to polymer or organic chemistry
- Experience in synthesis of engineered polymer building blocks including monomers and linkers
- Experience in mentoring students, either postgraduate or undergraduate

- A demonstrated track-record in research (academic and industrial), a strong publication record in high quality journals and industry reports
- A demonstrated problem-solving ability with a creative and solutions-driven approach
- Highly developed interpersonal skills including a demonstrated ability to work co-operatively in a multi-disciplinary team environment
- Strong oral and written communication skills
- A demonstrated commitment to ensuring excellent OHS standards in the workplace

2.2 DESIRABLE

- Experience in the synthesis of controlled radical polymerisation or self-immolative polymers
- Experience with instrumentation including dynamic light scattering, gel permeation chromatography, flow cytometry and fluorescence microscopy

3. Special Requirements

The work will include one research visit to The University of Western Ontario, Canada as part of collaboration with Professor E. Gillies on self-immolative nanoparticles.

4. Equal Opportunity, Diversity and Inclusion

The University of Melbourne 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/topics/responsibilities/

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

6. Other Information

6.1 SCHOOL OF CHEMISTRY

The School of Chemistry at the University of Melbourne is one of the largest and oldest in Australia with a distinguished history in teaching and research. The School has an excellent international reputation in research and an outstanding record of achievement in attracting external research funding. There is an ongoing program to keep its research facilities at a world standard. This work has involved progressive upgrading of the School's laboratories, the purchase of state-of-the-art instrumentation and recruitment of academics with a strong research profile. In addition, we are building stronger links with other disciplines within the University and other institutions locally and internationally. This commitment is highlighted by this research position with will involve both domestic and international collaborators.

The School of Chemistry is a key participant in the Bio21 Institute, a major world-class biotechnology initiative in Victoria. New purpose-built research laboratories for a number of research groups in the School are housed in the $100 million Bio21 Institute of Molecular Science and Biotechnology building. This exciting development provides state-of-the-art facilities for researchers in a dynamic interdisciplinary environment. The school also leads the ARC Centre for Exciton Science, which commenced in December 2017 and a new ARC Training Centre for Chemical Industries opening in 2018.

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

6.2 FACULTY OF SCIENCE

The Faculty of Science at the University of Melbourne is the most highly ranked Faculty of Science in Australia.* The Science Faculty is defined by its research excellence in the physical and life sciences and is at the forefront of research addressing major societal issues from climate change to disease. Our discoveries help build an understanding of the world around us.

We have over 150 years of experience in pioneering scientific thinking and analysis, leading to outstanding teaching and learning and offer a curriculum based on highly relevant research, which empowers our STEM students and graduates to understand and address complexities that impact real world issues and the challenges of tomorrow.

The Faculty of Science has over 40,000 alumni and is one of the largest faculties in the University comprising seven schools: BioSciences, Chemistry, Earth Sciences, Ecosystem and Forest Sciences, Geography, Mathematics and Statistics, and Physics.

The Faculty is custodian of the Bio21 Molecular Science and Biotechnology Institute, Office for Environmental Programs and is home to numerous Centres. Science manages more than $280 million of income per annum, with a staff base in the order of 220 professional staff, and more than 540 academic staff.

The Faculty of Science is a leader in research, contributing approximately $50 million in HERDC income per annum. The Faculty of Science is highly research focused, performing strongly in the ARC competitive grants schemes, often out-performing the national average. The Faculty of Science is currently growing its competitiveness and standing in the NHMRC space.

The Faculty of Science provides community services and industry partnerships based on a solid foundation of research in the pure and applied sciences. The Faculty has an endowment of approximately $50 million. The annual income from the endowment supports more than 120 prizes, scholarships and research awards.

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

*Figures from the latest available data for 2015, including published international rankings data.

6.3 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.

6.3 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.

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