



## Position Description – Research Assistant

### Position Details

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<b>Position Title:</b>	Research Assistant
<b>College/Portfolio:</b>	STEM College
<b>School/Group:</b>	School of Science
<b>Campus Location:</b>	Based at the City campus, but may be required to work at Bundoora campus at times.
<b>Classification:</b>	Academic Level A
<b>Employment Type:</b>	Fixed Term, 3 years, Research.
<b>Time Fraction:</b>	1.0

### RMIT University

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RMIT is a multi-sector university of technology, design and enterprise. The University's mission is to help shape the world through research, innovation and engagement, and to create transformative experiences for students to prepare them for life and work. For more information on RMIT University follow the links below.

<https://www.rmit.edu.au/about>

<https://www.universitiesaustralia.edu.au/university/rmit-university/>

<https://www.rmit.edu.au/about/facts-figures>

Our three main campuses in Melbourne are located in the heart of the City, Brunswick and Bundoora. Other locations include Point Cook, Hamilton and Bendigo, two campuses in Vietnam (Hanoi and Ho Chi Minh City) and a centre in Barcelona, Spain. RMIT is a truly global university.

<https://www.rmit.edu.au/about/our-locations-and-facilities>

We are also committed to redefining our relationship in working with, and supporting, Indigenous self-determination. Our goal is to achieve lasting transformation by maturing our values, culture, policy and structures in a way that embeds reconciliation in everything we do. We are changing our ways of knowing, working and being to support sustainable reconciliation and activate a relationship between Indigenous and non-Indigenous staff, students and community. Our three campuses in Melbourne (City, Brunswick and Bundoora campuses) are located on the unceded lands of the people of the Woi Wurrung and Boon Wurrung language groups of the eastern Kulin Nation.

## Why work at RMIT University

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Our people make everything at the University possible. We encourage new approaches to work and learning, stimulating change to drive positive impact. Find out more about working at RMIT University, what we stand for and why we are an Employer of Choice.

<https://www.rmit.edu.au/careers>

We want to attract those who will make a difference. View RMIT's impressive standings in university rankings.

<https://www.rmit.edu.au/about/facts-figures/reputation-and-rankings>

## STEM College

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The STEM College holds a leading position and expertise in the science, technology, engineering, mathematics and health (STEM) fields. We are uniquely positioned to influence and partner with industry, as never before.

STEM College is a community of exceptional STEM researchers, teachers, inventors, designers and game-changers, supported by talented professional staff. We offer higher education programs across all STEM disciplines at the Bachelor, Master and PhD levels, and ensure our students experience an education that is work-aligned and life-changing.

The College is renowned for its exemplary research in many STEM areas including advanced manufacturing and design; computing technologies; health innovation and translational medicine; nano materials and devices; and sustainable systems. Our brilliant researchers attract funding from government and industry sources.

Industry is at the heart of what we do. It ensures our research has real world impact, and our students are truly work-ready. Under the leadership of DVC STEM College & Vice President, Digital Innovation, we have established new hubs of industry-connected digital innovation and endeavour and are engaging with global STEM organisations at scale.

Our diversity and shared values empower our work, and we are proud of the College's inclusive, caring culture. We offer a safe, dynamic work environment, and support every member of our community to achieve their potential. The College appointed Victoria's first ever Dean of STEM, Diversity & Inclusion in 2020, and this role drives gender equity, diversity and inclusion strategies across the College.

STEM College employs 1,000 staff who deliver onshore and offshore programs to approximately 20,000 students.

**We are here to positively impact the world and create the next generation of STEM leaders.**

[www.rmit.edu.au/seh](http://www.rmit.edu.au/seh)

## School of Science

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The School of Science delivers excellence in applied research and education, engaging in strong impactful industry partnerships and producing skilled, industry-ready graduates.

The School employs over 120 academic and 60 FTE research staff across five academic Disciplines (Applied Chemistry and Environmental Sciences; Biosciences and Food Technology; Geospatial Sciences, Mathematical Sciences; Physics).

The School has a diverse research portfolio across science and mathematics with international research excellence in quantum science technologies, advanced materials chemistry and catalysis solutions and in water science, systems and sustainability; in addition to emerging strengths in geospatial technologies, mathematics and future food technologies. Annual research income for the School is around \$20 million and the School has just under 400 Higher Degree by Research students.

The School delivers high-quality applied, authentic and active industry-engaged education and teaching to over 2,600 undergraduate- and postgraduate-taught students across 10 ongoing undergraduate and 8 postgraduate programs, in addition to offshore partnerships and delivery, including in China and Vietnam.

Across learning and teaching and research, the School partners actively with industry and external stakeholders in Australia and internationally, delivering innovation, research translation and providing knowledge and real-world solutions for societal good and to enhance sustainable development. The School is strongly committed to

promoting and enhancing diversity and inclusion and seeks also to activate and develop its commitment to reconciliation.

Details of the School can be found at:

<https://www.rmit.edu.au/about/schools-colleges/science>

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### **Position Summary**

One postdoctoral researcher position is available to work on an ARC-funded grant to develop new serial crystallography methods to be used at the Australian Synchrotron. The aim of the project is to deliver a new analysis technique to obtain protein structures from nanocrystal diffraction collected via a novel sample delivery system. Our new crystallography approach is based on emerging correlation-based diffraction analysis techniques (also known as fluctuation scattering techniques).

The postdoctoral researcher will be required to build a sample delivery system for protein nanocrystals to be operated on crystallography beamlines at the Australian Synchrotron. This will involve liaising with synchrotron staff, adapting the design to the synchrotron's requirements and testing the system at the synchrotron. The researcher will be involved in protein production, purification, and characterisation for crystallisation studies. This role also involves crystallising nano-sized protein crystals and characterising their size for use in the sample delivery system. They may also use Python-based code written by the research group to analyse synchrotron data using the new structure determination technique.

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### **Reporting Line**

Reports to: A/Prof. Andrew Martin

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### **Organisational Accountabilities**

RMIT University is committed to the health, safety and wellbeing of its staff. RMIT and its staff must comply with a range of statutory requirements, including equal opportunity, occupational health and safety, privacy and trade practice. RMIT also expects staff to comply with its policy and procedures, which relate to statutory requirements and our ways of working.

RMIT is committed to providing a safe environment for children and young people in our community. Read about our commitment and child safe practices. <https://www.rmit.edu.au/about/our-locations-and-facilities/facilities/safety-security/child-safety>

Appointees are accountable for completing training on these matters and ensuring their knowledge and the knowledge of their staff is up to date.

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### **Key Accountabilities**

1. Conduct research/scholarly activities under limited supervision either independently or as a member of a team including: publishing and presenting research outputs at conferences and research forums; contributing to external research funding submissions; participating in supervision of higher degree by research candidates.
2. May undertake limited teaching and supervision at undergraduate levels as required.
3. Undertake administration related to the position.

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### **Key Selection Criteria**

1. Evidence of experience in synchrotron experiments and diffraction-based techniques (e.g. crystallography or related methods).
2. Evidence of experience in materials synthesis or characterization (e.g. protein crystals or related samples). Expertise in recombinant protein production, purification, and characterisation is preferred.
3. Ability to design and develop experimental apparatus (i.e. the sample delivery system).
4. Some experience with Python-based programming.

5. Evidence of research output including publications, conference contributions and/or technical reports in the field.
6. Demonstrated ability to work autonomously and undertake research projects independently.
7. Demonstrated interpersonal and communications skills appropriate for interacting with higher degree by research candidates, staff and industry, together with a strong commitment to teamwork and multidisciplinary collaboration.

## Qualifications

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**Mandatory:** PhD in Physics, Chemistry, Structural Biology, Biochemistry or related field.

Note: Appointment to this position is subject to passing a Working with Children Check and other checks as required by the specific role. Maintaining a valid Working With Children Check is a condition of employment at RMIT.

<b>Endorsed:</b>	Signature:	<b>Approved:</b>	Signature:
	Name:		Name:
	Title:		Title:
	Date:		Date: