



2027 Summer Research Project_A/Prof Wu

Section	Description
Project title	Development of novel therapeutics to overcome immune suppression in ovarian cancer
Hours & delivery	36 hours of engagement based at the School of Biomedical Sciences, Sir William Macgregor Building (64), St Lucia campus
About the project (150–250 words)	We are interested in developing novel nano-therapeutic methods to overcome immune suppression in cancer. The high recurrence rate is a major challenge in the clinical management of cancer. While stimulating our own immune system to recognise and attack tumour cells represents an attractive means to facilitate complete elimination of tumours, emerging data suggest that many of the immunotherapy tools, such as immune checkpoint inhibitors, are minimally active in cancer. We aim to understand the complex immune suppression mechanism in tumours and use this information to develop effective strategies enhance anti-tumour immunity. We are also interested in developing more effective tumour-targeting delivery strategies for treatment of cancer. Ultimately, strategies developed in this project could harness the power of the immune system to eliminate tumours and significantly increase the survival of patients with cancer. We are seeking a motivated undergraduate student who is interested in contributing to a large project involving nanotechnology, cancer biology and computer science, and who is eager to learn how to develop effective strategies for cancer treatment. The student will learn critical research skills and gain experience in working in a multidisciplinary environment, and contribute to an exciting project in the area of cancer biology, immunology and nanomedicine. This project is open to applications from students with a background in biomedical engineering, biomedical sciences, or computer science, who is interested in exploring research as a career path.
What you'll do (100–150 words)	The student will perform experiments involving gene and protein analyses aiming at understanding how cancer cells interact with other stromal populations to create the immune suppression. The student will test how certain compounds may inhibit this cancer-stromal population crosstalk. These experiments will improve our understanding on mechanisms to overcome immune suppression in cancer.
What you'll learn (100–150 words)	The student will learn critical skills and knowledge needed to develop new strategies to overcome immune suppression in cancer. He/She will gain experience in working in a multidisciplinary environment, obtain hands-on training from the lab team, and contribute to an exciting project in the area of cancer therapeutics.
Project outcomes (75–125 words)	The experiments performed in this project will improve our understanding on mechanisms to overcome immune suppression in cancer. The student will learn critical laboratory skills and knowledge needed to develop new strategies to overcome immune suppression in cancer. He/She will gain experience in working in a multidisciplinary environment, obtain hands-on research training.
Who should apply? (75–125 words)	This project is open to applications from students with a background in biomedical engineering, biomedical sciences, or computer science, who is interested in exploring research as a career path.



Team & supervision (75–125 words)	A/Prof Sherry Wu Cancer Therapeutics https://biomedical-sciences.uq.edu.au/research/groups/cancer-therapeutics
Additional opportunities (optional)	Students will have opportunities to engage with the broader research community through participation in laboratory meetings, where they may present their work and discuss scientific findings.
Additional requirements (if applicable)	Before commencing laboratory work, students will be required to complete laboratory onboarding and compliance processes. This includes a range of mandatory online training modules relevant to working in a PC2 research environment, such as biosafety, occupational health and safety (OHS) responsibilities, manual handling, chemical safety, and laboratory risk management. Students must follow all laboratory safety procedures and maintain accurate experimental records. .
	Yes, students may contact the supervisor before applying.
Contact	Direct enquiries to: A/Prof Sherry Wu sherry.wu@uq.edu.au