

UQ Summer or Winter Research Project Description

Please use this template to create a description of each research project, eligibility requirements and expected deliverables. Project details can then be uploaded to each faculty, school, institute, and centre webpage prior to the launch of the program.

Project title:	Nanomedicine for overcoming biological barriers
Project duration, hours of engagement & delivery mode	<i>6 weeks and applicant will be required on-site for the project.</i>
Description:	<i>Advanced porous materials and permeation enhancers (PEs) strategies could be a key approach to improve transport of poorly absorbed active pharmaceutical ingredients across the intestinal epithelium. Working on this project, you'll explore permeation enhancers effect of porous nanoparticles to improve oral bioavailability of poorly soluble/permeable drugs and test its ability across many biological barriers (Brain, Gut, Lungs etc). A/Prof. Amirali Popat laboratory work experience will train you in preparation and characterization methods (FTIR, TGA/DSC, SEM, TEM and XRD, etc.) relevant to porous nanomaterials and their in-vitro intestinal permeability studies.</i>
Expected outcomes and deliverables:	Student will have opportunity to dive into the world of nanomedicine and how these are produced and characterised.
Suitable for:	Project is suitable for students with background on Biomedical Engineering, Masters in pharmacy, Masters in biotechnology.
Primary Supervisor:	Amirali Popat
Further info:	For further information please contact me on a.popat@uq.edu.au