

## 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.

<b>Project title:</b>	<b>Opioid interaction with TLR signalling</b>
<b>Project duration, hours of engagement &amp; delivery mode</b>	This project will involve 8 weeks of work in a research laboratory at PACE and cannot be performed remotely.
<b>Description:</b>	<i>We and others have previously shown the ability of some opioids to reduce the activation of toll-like receptor 4 (TLR4) by its natural agonist lipopolysaccharide. This is determined using a cell line engineered to overexpress the receptor together with a reporter gene whose activity is easily measured using a colorimetric assay. We now propose to test whether opioids similarly interfere with the activation of other members of the TLR family using a similar assay and reporter cell lines overexpressing TLR2 or TLR9.</i>
<b>Expected outcomes and deliverables:</b>	<i>The successful applicant will master and perform the TLR activation cell-based assay, organise, analyse and present the data obtained.</i>
<b>Suitable for:</b>	Preexisting experience of cell culture is desirable but not necessary
<b>Primary Supervisor:</b>	A/Prof Marie Odile Parat and Dr Peter Moyle
<b>Further info:</b>	Please contact <a href="mailto:m.parat@uq.edu.edu">m.parat@uq.edu.edu</a> prior to applying