

MRI-UQ Winter Research Project Description

Project title:	Modeling Primary Sclerosing Cholangitis and the increased risk of colorectal cancer.
Project duration:	10 weeks
Description:	<p>Inflammatory bowel disease affecting the colon is associated with an increased risk of colorectal cancer that can be as high as 20% after 20 years. Patients who develop primary sclerosing cholangitis(PSC) have a 5-fold increased risk of colorectal cancer but the mechanism of this risk remains unclear.</p> <p>Using a murine model of PSC we will examine the effects of this disease on the incidence of colorectal tumours in a colitis associated cancer model. Using a histologic and RNA expression based approach we will analyse the genetic pathways involved in carcinogenesis. Samples for microbiome analysis will also be collected.</p>
Expected outcomes and deliverables:	Scholars may expect to gain skills in mouse handling, data collection, histologic analysis, quantitative microscopy and may have an opportunity to generate publications from their research. Students will also be asked to produce a report or oral presentation at the end of their project.
Suitable for:	This project is open to applications from students with a background in biology and/or molecular biology. Year 3-4 UQ enrolled students only
Primary Supervisor:	Jakob Begun
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