Systems genomics of the gut-brain axis

Research Project Overview

Project title:	Systems genomics of the gut-brain axis
Project duration:	4 weeks
Description:	The gut-brain axis is a bidirectional communication system between the brain and gastrointestinal tract comprising neuronal, endocrine and immune pathways. Mounting evidence suggests that gut-brain axis dysfunction contributes to many disorders and diseases, including autism, anxiety, Parkinson's disease, and functional GI disorders that are frequently co-morbid with these conditions. We are generating novel transcriptomic data in mouse models of autism, anxiety and Parkinson's to improve understanding of the gut-brain axis in disease.
Expected outcomes and deliverables:	The project will offer students an opportunity to gain experience in the laboratory, including histology, light microscopy and RNA sequencing of tissue samples from mouse models and or patient biopsies. Scholars would be required to participate in lab meetings and to produce a short oral presentation at the end of their course.
Suitable for:	This project is open to highly motivated UQ students (years 3 / 4) with outstanding attention to detail and an interest in the genomics of common disease.
Primary Supervisor:	Dr. Jake Gratten Mater Research
Further info:	Please contact Jacob.gratten@mater.uq.edu.au for further information.

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