

Systems genomics of the gut-brain axis

Research Project Overview

Project title:	Systems genomics of the gut-brain axis
Project duration:	Up to 10 weeks
Description:	<p>The gut-brain axis is a bidirectional communication system between the brain and gastrointestinal tract comprising neuronal, endocrine and immune pathways.</p> <p>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.</p> <p>We are analysing in-house and publicly available transcriptomic and genetic data to progress understanding of the role of the gut-brain axis in common disease.</p>
Expected outcomes and deliverables:	<p>The project will offer students an opportunity to gain experience in the handling and analysis of large-scale genetic and transcriptomics datasets. The project would be ideally suited to students with an interest in programming and statistical genetics. Scholars will be required to participate in lab meetings and to produce a short oral presentation at the end of their course.</p>
Suitable for:	<p>This project is open to highly motivated UQ students (years three and four) with outstanding attention to detail and an interest in the genomics of common disease.</p>
Primary Supervisor:	Dr. Jake Gratten (Mater Research Institute UQ)
Further info:	<p>Please contact Dr. Jake Gratten if you would like to know more about this project before applying. Email: jacob.gratten@mater.uq.edu.au</p>