

Integrative genomics of the gut-brain axis in Parkinson's disease

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| Project duration: | Both PhD and Honours projects available |
| Description: | Mounting evidence supports a central role for the gut-brain axis in development of Parkinson's disease (PD). We are analysing in-house and publicly available genomic datasets, including spatial and single cell transcriptomics from mouse models and human samples to progress understanding of the molecular mechanisms involved in gut-to-brain spread of cellular pathology in PD. |
| Expected outcomes and deliverables: | This project offers opportunities to gain expertise in the generation of spatial and single cell RNA-seq, and in statistical and computational methods for analysis of large-scale genomic data. |
| Suitable for: | Students with strong quantitative skills (programming, statistics, HPC) and an interest in human genetics and neurodegeneration are encouraged to apply. |
| Primary Supervisor: | Dr Jake Gratten |
| Further info: | Please contact Jacob.gratten@mater.uq.edu.au for more information on this project. |