

## CRACKing Cortical Circuits for Learning and Behavior

Information processing in the neocortex is carried out by neuronal circuits composed of different cell types. In recent years, there have been concerted efforts to generate a complete catalog of the cell types in the mammalian brain using single cell transcriptional profiling. This has revealed a large number of putative cell types that raises the question as to whether this cell type diversity has functional significance during behavior. In order to link these new surveys with brain function, it is necessary to measure both activity and gene expression patterns of neuronal populations during behavior. I will describe the application of new multi-modal tools combining in vivo two-photon calcium imaging with spatial transcriptomics to investigate the role of gene networks on cortical circuit function in the context of learning and behavior.

**Host:** Noemie Mermet-Joret



Jerry Chen, PhD.

Associate Professor

Department of Biology

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Date: Monday 27 November 2023

Time: 12:30 pm – 1:30 pm

Venue: 1162-013

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**OPEN TO ALL INTERESTED.** 







