

Cell & Systems Biology UNIVERSITY OF TORONTO

Special Seminar: Candidate for Assistant Professor Plant and/or Microbial Systems Biology

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"Multitasking: coordination of stress responses and seed maturation by abscisic acid transcription factor networks"

The plant hormone abscisic acid (ABA) plays a pivotal role in both osmotic stress responses and seed maturation. An ABA transcription factor (TF) network in vegetative tissues has been constructed. Characterization of the network provides information of network organization features, network dynamics, and approaches to precisely regulate gene expression. ABA's role in seed maturation has been under-studied, and the framework of ABA TF network in seeds consists of just a handful of TFs. Using ABA-related features such as seed size, mucilage morphology and seed permeability as proxies, many genes were identified to be involved in seed maturation, including additional ABA-responsive TFs. These genes will be used to construct an ABA network in seeds. Network comparisons across developmental stages, cell types, or species will further our understanding of osmotic responses, storage reserve deposition and gene expression, thus guide us for crop improvement.

Monday, April 2, 2018 at 11:00 a.m.

Ramsay Wright Building, Room 432

This seminar will be recorded to be accessible within 24 hours after the event.

Refreshments will be served. Ramsay Wright is a wheelchair accessible building.