

UNIVERSITY
of GUELPH

COLLEGE of
BIOLOGICAL SCIENCE

DEPARTMENT OF MOLECULAR
AND CELLULAR BIOLOGY

MCB Seminar

SPEAKER SERIES

2023 - 2024

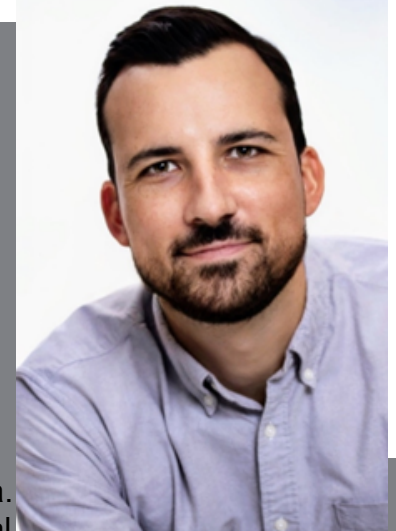
MAR **WED**
20 **10** **30**
AM

Summerlee
Science Complex
SSC 2315

DR. SPENCER FREEMAN

Assistant Professor,
Department of Biochemistry,
University of Toronto

**Know when to hold 'em, know when to run:
How immune cells undergo a critical switch
between dynamic and quiescent states by
controlling their feet (podosomes)**



Spencer Freeman received his Ph.D. from the University of British Columbia. Since then, he has investigated basic immunobiology, first as a post-doctoral fellow at the Hospital for Sick Children, then as faculty in the Peter Gilgan Research Institute and the University of Toronto where he holds a Tier II CIHR Research Chair in Immune Surveillance. He has made key contributions to understanding specialized types of endocytosis in myeloid cells including phagocytosis and macropinocytosis using largely imaging-based approaches that range from single molecule tracking to intravital microscopy. Recently, his laboratory has explored the mechanisms by which immune cells control organelle volume and sense mechanical perturbations on these organelles. As such, he is working to understand the movement of ions and solutes across the limiting membrane of endosomes, lysosomes, and phagosomes in macrophages using multidisciplinary approaches. A second line of research relates to the cytoskeleton in immune cells, how it supports mechanisms of their surveillance, and how dysregulation of genes that control the cytoskeleton lead to immune related diseases. In the 4+ years since starting his research group, he has received funding from 5 independent sources and trained more than 20 students and post-doctoral fellows.

All welcome to attend
Light refreshments will be served

More information on MCB's website:
www.uoguelph.ca/MCB