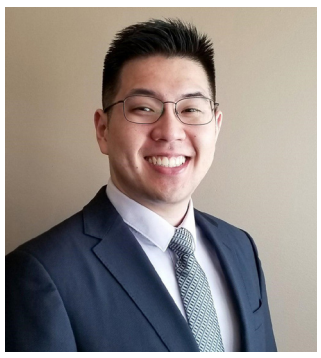
CHILDREN'S HOSPITAL RESEARCH INSTITUTE OF MANITOBA

RESEARCH ROUNDS

The Children's Hospital Research Institute of Manitoba

FEBRUARY 25, 2021 | 12:00 - 1:00 PM (CST)

Streamed webinar via Zoom



Overview of the Microscopy Platform: Capabilities & Techniques

Andrew Tse, PhD

Dr. Andrew Tse is the microscopy platform manager and Research Associate in Dr. Richard Keijzer's lab. His current research involves assessing diagnostic tools and developing nanoparticles for prenatal drug delivery. He uses tools such as colocalization and linear unmixing to look at nanoparticle-protein interactions.

Immunohistochemistry Techniques: Tips & tricks for optimizing your protocol

Thomas Mahood, PhD candidate

Thomas grew up with asthma in a small town in Manitoba. When he was a kid, there wasn't many options to help control his asthma. His interest in asthma guided him towards a PhD in Respiratory Physiology and Pathophysiology with Dr. Andrew Halayko at the University of Manitoba to help understand the molecular mechanisms of disease and the impact innovative therapeutics have on patients. In his free time Thomas enjoys running with his dog, rock climbing and photography.

Whole mount staining vs Immunohistochemistry: Application & data analysis

Dustin Ameis, MSc

Dustin completed his Masters of Science under Dr. Richard Keijzer. He is currently working as a Microbiology Technician with Drs. Vanessa Poliquin, Adam Burgener, and Alicia Berard. His earlier work looked at lung development using embryonic lung explants, and made use of the confocal microscope to image these explants whole mount.

Validating biochemical observations: Validating fractionation experiments with confocal microscopy

Matthew Martens, PhD candidate

Matthew Martens is in the final year of his PhD at the University of Manitoba in Dr. Joe Gordon's research lab. Since beginning his PhD his work has been focused on cellular and rodent models to develop pharmacological approaches for preventing and treating the cardiovascular injury that preterm infants experience following hypoxic episodes in early life. Throughout this project, Matthew has been funded by Research Manitoba Studentships in Partnership with CHRIM.

Principles of calcium imaging with Fura-2: Application & technique

Jignesh Vaghasiya, PhD Student

Jignesh is a PhD trainee at Dr. Andrew Halayko's lab. His research project involves investigating the novel role of oxidized phospholipids in the pathobiology of Asthma. He has been extensively using the Fura-2 Calcium Indicator Assay to measure intracellular Ca2+ changes in live cells as part of his pre-clinical research project. This research technique of has been available for decades and Dr. Halayko's lab is efficiently uses it to test their primary hypothesis.