



University
of Victoria

CAMTEC & CBR SEMINAR

“Phagosomal Dynamics in the Macrophage”

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University of Calgary

DATE: Wednesday, June 22, 2016

TIME: 2:00 – 3:00 pm

LOCATION: EOW 430

Abstract:

The Yates lab focuses its research on the luminal microenvironment within phagosomes in macrophages and dendritic cells. The phagosome is the organelle that is formed following phagocytosis of particulate material and is charged with the task of processing the engulfed material appropriately. Macrophages and dendritic cells can adapt the luminal chemistries within the phagosome to best suit the task at hand. This allows these cells to perform numerous tasks within the body. However, with increased versatility comes increased fallibility which can lead to disease. By utilizing techniques in fluorometry, microscopy and molecular biology the group can monitor chemistries within this microenvironment; explore relationships between phagosomal chemistries and dissect pathways that alter phagosomal function. Over the past few years, the Yates lab has uncovered relationships between antimicrobial effectors and antigen processing chemistries within phagosomes. Perturbation of these relationships leads to altered patterns of antigen processing and altered susceptibility to autoimmune disorders. More recently, an emerging investigation into the dynamics of the late phagolysosome has captured the group’s attention and may reveal a new role for macrophages in inflammation.

Please contact the CAMTEC office for further information (250) 721-7736 or camtec@uvic.ca.

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