



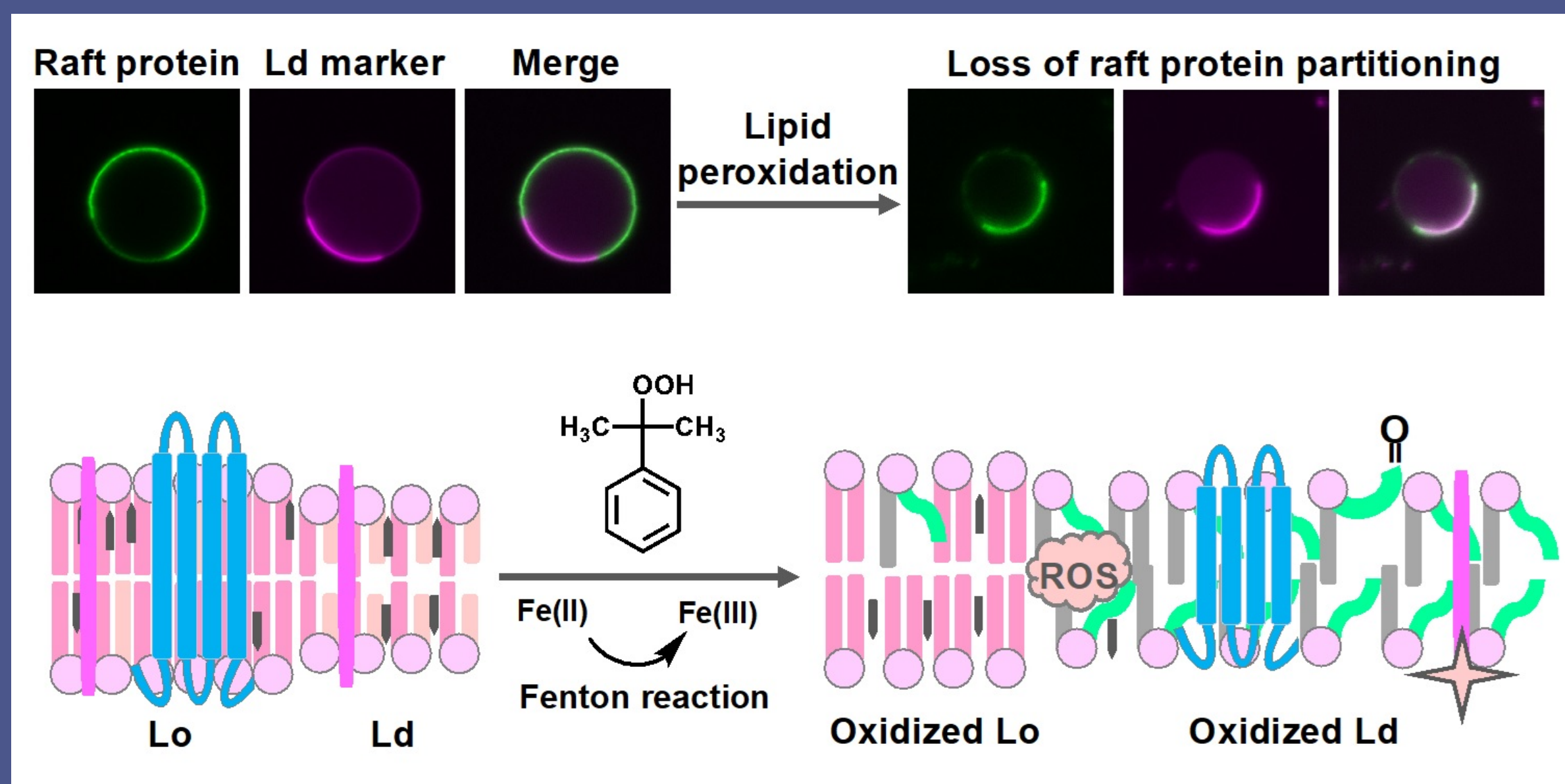
Chemical & Physical Sciences

UNIVERSITY OF TORONTO

MISSISSAUGA

COLLOQUIUM SEMINAR SERIES

HOW CELLS BUILD FUNCTIONAL NANODOMAINS FROM LIPIDS AND PROTEINS



Cells are built from a variety of biomolecules that range in their biochemical complexity and physical characteristics. The properties of biological membranes, which are a defining feature of cells, are especially fascinating. They are flexible enough to bend, yet are tough enough to maintain cellular integrity. All cellular membranes share a characteristic bilayer morphology. However, their lateral organization can be surprisingly complex. The mixtures of lipids and proteins found in biological membranes, for example, self-assemble laterally to generate a variety of higher order complexes and domains ranging from nanometers to microns in size, often with the help of cholesterol. In this talk, I will discuss recent lessons learned using state-of-the-art biophysical approaches about the biophysical principles that govern the assembly of functional nanodomains. I will also describe how defects in nanodomain architecture contribute to disease and emerging approaches to manipulate nanodomains for therapeutic purposes.

COLLOQUIUM SEMINAR SERIES

featuring

Anne Kenworthy, Ph.D. University of Virginia School of Medicine

Wednesday, November 29, 2023 | 3:30pm

Location: CCT2150