

## W0019

**Neutrons See Domains or So-Called “Rafts” in Lipid Membrane Vesicles.** J. Pencer<sup>1</sup>, S. Krueger<sup>2</sup>, R. Epan<sup>3</sup>, J. Katsaras<sup>1</sup>, <sup>1</sup>National Research Council – Steacie Inst. of Molecular Sciences, Chalk River Labs, Chalk River, ON, Canada, <sup>2</sup>NIST Center for Neutron Research, Gaithersburg, MD, <sup>3</sup>Biochemistry Dept., McMaster Univ., Hamilton, ON, Canada.

In recent years, much work has been devoted to understanding domain formation in both cell and model membranes, driven in part by the putative roles of membrane domains in biological functions, such as immune response and synaptic transmission. Despite the potential of neutron scattering to probe biologically relevant nanometer-sized structures, no neutron scattering studies have yet been performed to characterize domain formation in unilamellar lipid vesicles. We show small-angle neutron scattering (SANS) measurements from which we are able to identify the onset of lateral segregation and characterize domains in a variety of mixtures of lipids and sterols.

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