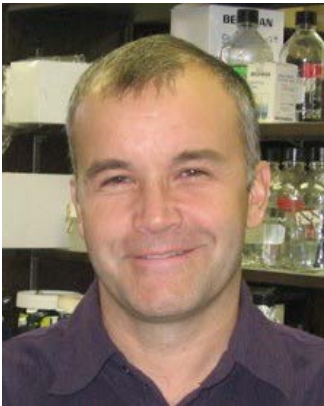


The Cell Research Group & Centre for Blood Research

INVITE YOU TO A SEMINAR ON

Wednesday, November 14 @ 12PM | LSC 3



“Regulation of lipid homeostasis by a nuclear-localized phosphatidylcholine biosynthetic enzyme”

Dr. Neale Ridgway

Professor, Dept. of Pediatrics and Biochemistry & Molecular Biology, Dalhousie University

Director, Atlantic Research Centre

Phosphatidylcholine (PC) is the most abundant phospholipid in eukaryotic cells where it is a component of organelle membranes, a precursor for signaling factors and secreted in lipoproteins, bile and lung surfactant. PC synthesis by the CDP-choline (Kennedy) pathway is controlled by the ubiquitously expressed, rate-limiting enzyme CTP:phosphocholine cytidyltransferase (CCT) alpha. CCT alpha is a soluble enzyme in the nucleoplasm that is activated by translocation to the inner nuclear membrane. This seemingly paradoxical locale for a lipid biosynthetic enzyme indicates that control of PC synthesis occurs in the nucleus and could be integrated with other nuclear functions. The seminar will highlight studies that define the role of nuclear CCT alpha in the provision of PC for the biogenesis of cytoplasmic lipid droplets and lipoprotein secretion. Evidence will also be presented that CCT alpha regulates nuclear lipid droplet-PML-body complexes that are implicated in nuclear stress responses.

Live Online Seminar Viewing:
<https://meet.ubc.ca/hana.kim/YGHMR41Q>

