TRENT UNIVERSITY
PHYSICS & CHEMISTRY SEMINAR PROGRAM

WEDNESDAY, MARCH 1, 2017

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Molecular Membrane Biophysics

ABSTRACT

Our lab is running a research program in membrane biophysics. We use X-ray and neutron beams to study molecular structure and dynamics in membranes in-situ, under physiological conditions [1]. We study nanoscale diffusion within and across membranes, the effects of small molecules on membrane properties, the interaction with common drugs, such as aspirin, ibuprofen and cortisone, and their side effects. We detect and characterize membrane rafts and peptide interactions in Alzheimer's disease. Experiments are complemented by molecular dynamics computer simulations. I will talk about current topics in membrane biophysics, nano- and personalized medicine, the associated experimental challenges and present exciting recent results and biomedical applications.

References

1. http://www.rheinstaedter.de/maikel/publications/publications.htm

SCIENCE COMPLEX ROOM 115

11:00 AM

All Welcome!

Check schedule on the web for updates: https://www.trentu.ca/physics/newsevents_seminars.php