



PHYSICS AND ASTRONOMY COLLOQUIUM

Dr. Maikel Rheinstadter
McMaster

Functional and Functionalized Membranes

Abstract

Cell membranes are dynamic and complex structures, and their composition and structure are major determinants of pathology. It is such as fluidity and thickness, are determining factors for permeability, partitioning of drug molecules, and protein aggregation. Membrane-interacting molecules can in some instances be expected to have a greater therapeutic potential than traditional therapies targeting receptors or enzymes. I will provide a perspective on the basic mechanisms how physical membrane properties can affect diseases and the therapeutic potential of changing membrane lipid composition and properties to target certain diseases, including biomedical applications [1].

[1] <http://www.rheinstaedter.de/maikel/publications/publications.htm>

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