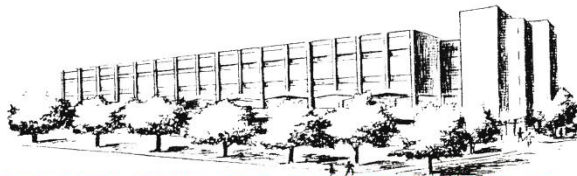


UNIVERSITY OF CONNECTICUT



**INSTITUTE OF MATERIALS SCIENCE**

## **POLYMER PROGRAM SEMINAR**

**“Nanoscopic Lipid Domains in Model and Living Bacterial Membranes”**

**Dr. John Katsaras  
Oak Ridge National Laboratory**

**Friday, September 25, 2015  
11:00 AM, IMS Room 20**

### **ABSTRACT**

Biomembranes are the active boundary between cells and their surroundings. They are sophisticated and dynamic machines that perform a diverse array of functions, including selective transport, localization, communication, and recognition. It is also widely accepted that the plasma membrane is laterally heterogeneous, containing nanoscopic regions enriched in certain lipids, which have different physical properties from the surrounding lipids. These functional lipid domains in biology are commonly referred to as “rafts”. Rafts have been implicated in a wide range of cellular functions, including signal transduction, drug uptake, and interactions with pathogens, to name a few. In recent years, we have used small angle neutron scattering to study nanoscopic lipid domains in model membrane systems [1, 2], and in the Gram-positive bacterium *Bacillus subtilis*. Neutron scattering data from these studies will be presented.

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