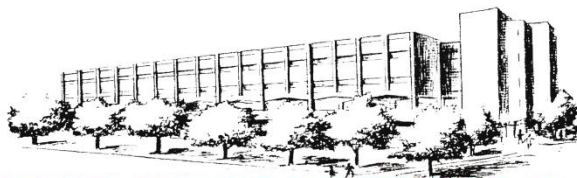


UNIVERSITY OF CONNECTICUT



**INSTITUTE OF MATERIALS SCIENCE**

**POLYMER PROGRAM SEMINAR**

**“Molecular and Process Determinants of  
Solution Based Polymer Self-Assemblies”**

**Prof. Margarita Herrera-Alonso  
Johns Hopkins University**

**Friday, November 6, 2015  
11:00 AM, IMS Room 20**

**ABSTRACT**

The solution based self-assembly of linear block copolymers is widely studied as an approach for engineering nano-objects. A variety of different morphologies result from manipulating the molecular characteristics of the polymers, most commonly the ratio of dissimilar blocks. The advancement of controlled polymerization routes has enabled access to more complex polymer architectures, the self-assembled structures of which are distinct from linear block copolymer systems. Furthermore, aside from the possibilities enabled by chemical diversity, aggregate structure can also be directed through kinetic features of the assembly process, providing another route to tailor their properties. In this talk, we will examine and contrast the molecular and process determinants of aggregates from bottlebrush, linear, and linear-dendritic polymer amphiphiles. We will also discuss applications of bottlebrushes -as single chain nanoparticles or as multi-molecular aggregates- in drug delivery, including their ability to encapsulate hydrophobic solutes, and their stability in biologically relevant media.

*\*For further information, please contact YH Chudy at [younghee.chudy@uconn.edu](mailto:younghee.chudy@uconn.edu).*