

UNIVERSITY OF CONNECTICUT



INSTITUTE OF MATERIALS SCIENCE

**POLYMER PROGRAM &
MECHANICAL ENGINEERING DEPT.**

A Joint Seminar

**“Cancer Nanomedicine: The Challenge of
Targeting Nanoparticles into Tumors”**

**Prof. Warren Chan
University of Toronto**

**Friday, April 21, 2017
11:00 AM, IMS Room 20**

ABSTRACT

Nanotechnology involves the engineering of structures, materials, and particle in the size range of 1 to 100 nm. These nanostructures have unique biological, optical, electrical and magnetic properties that are in direct relationship to their size, shape, and surface chemistry. As a result of these properties, nanotechnology is currently exploited in medicine for diagnosing and treating diseases. In this presentation, the properties of nanomaterials and challenges associated with using them for cancer targeting will be discussed. Specifically, the discussion will focus on how biological fluids and serum proteins influence the morphology, surface chemistry, and targeting ability of the nanoparticles in cells outside and inside the body. We will further describe chemical strategies using DNA-based molecular assembly to address the nanoparticle “delivery” challenge.

**For further information, please contact YoungHee Chudy at younghee.chudy@uconn.edu or 860 486 3582.*