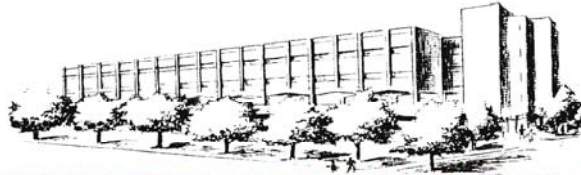


UNIVERSITY OF CONNECTICUT



INSTITUTE OF MATERIALS SCIENCE

POLYMER PROGRAM SEMINAR

**“Nucleic Acid-Based Nanomaterials for
Recognition of Target Cells”**

Prof. Yong Wang

Chemical, Materials and Biomolecular Engineering Dept, UConn

Friday, April 17, 2009

11 AM, IMS Room 20

Specific recognition of target cells plays an important role in the basic research of life sciences and clinical applications. To achieve the specific recognition, one needs to not only identify certain biomarkers that are restrictedly expressed by the cells, but also identify ligands that can specifically interact with the cell biomarkers. Antibodies, because of high binding affinity and specificity against their antigens, are the most common ligands used for cell recognition in various fields such as cancer therapy and diagnosis. However, a growing body of evidence has been showing that antibody applications suffer from their limitations such as instability, immunogenicity, large size, etc. To overcome these problems, we are exploring nucleic acid aptamers as structural units for the development of intelligent nanomaterials that can recognize target cells with high binding affinity and specificity. Moreover, the nanomaterials have the capability of carrying diagnostic or therapeutic molecules. This presentation will introduce our recent work about the discovery of nucleic acid aptamers and the labeling of target cells with aptamer-based nanomaterials.

**Coffee will be served at 10:45AM outside the seminar room.*

**For further information, please contact YH Chudy at 860.486.3582 of yhchudy@ims.uconn.edu*