Friday
November 6,
2009

10:00 a.m.

Chem. Sci.
& Engineering
Room 102

Refreshments
will be served

MichiganTech

Chemical Engineering

Grain Processing Corporation
2009-2010 Lecture Series

presents

Dr. Lanrong Bi
Michigan Technological University
Department of Chemistry

Molecular Engineering Approaches to Deciphering the Genome

DNA sequencing by synthesis (SBS) on a solid surface during polymerase reaction offers a paradigm to decipher DNA sequences. We will discuss here about the construction of such a DNA sequencing system using molecular engineering approaches. In this approach, four nucleotides (A, C, G, T) are modified as reversible terminators by attaching a cleavable fluorophore to the base and capping the hydroxyl group with a small chemically reversible moiety so that they are still recognized by DNA polymerase as substrates.