

# WAYNE STATE UNIVERSITY

## The WSU Program for Traumatic Brain Injury Research

presents a Special Topic Seminar

### Hua Ai, PhD

Professor of Biomaterials, National Engineering Research Center for Biomaterials, Adjunct  
Professor at Department of Radiology, West China Hospital, Sichuan University.

## “Magnetic Nanocomposites as MRI Probes: Design and Applications”

**Abstract:** Magnetic resonance imaging (MRI) probes are the important tools for discovering small pathological changes with functionality analysis. Probe structural design, functionality, multimodality, and applications will be covered in this talk. The focus of probe structural design is mainly aimed on how to improve the imaging sensitivity, including one important feature: the relaxivity of probes. Superparamagnetic nanoparticles are efficient proton enhancers. In our approach, magnetic nanoparticles are usually delivered by polymeric carriers with improved biocompatibility and sensitivity. Design of small molecule paramagnetic probes and conjugation to polymeric carriers will also be discussed.

**Date:** Monday April 8<sup>th</sup>, 2013

**Time:** 12:00pm – 1:00 pm

**Location:** Margherio's Family Conference Center  
320 E. Canfield, Detroit, MI 48201



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