

WAYNE STATE UNIVERSITY

The WSU Program for Traumatic Brain Injury Research

presents a Special Topic Seminar

Shaolin Yang, PhD

Assistant Professor of Psychiatry, Radiology, and Bioengineering, College of Medicine,
University of Illinois at Chicago, Chicago, Illinois

“Improved One-Dimensional (1D) and Two-Dimensional (2D) ^1H Magnetic Resonance Spectroscopy for Detection of Neurometabolites”

Abstract: ^1H magnetic resonance spectroscopy (MRS) has been used to noninvasively measure metabolites in the human brain with high specificity. However, one-dimensional (1D) ^1H -MRS is limited by spectral overlap and both 1D and two-dimensional (2D) localized ^1H -MRS are impacted by chemical shift displacement errors and related artifacts, which are more evident at higher magnetic field strengths.

This presentation will discuss a few strategies and new MRS sequences to solve the above issues, including spectral simplification in 1D ^1H -MRS and improvement of voxel localization using adiabatic pulses in 1D and 2D ^1H -MRS. The feasibility and advantages of the proposed MRS techniques will be demonstrated by the improved detection and measurement of a few important metabolites in the brain, including glutathione (GSH), as well as their potential clinical applications.

Date: Tuesday July 8, 2014

Time: 12:00pm – 1:00 pm

Location: 3125 Scott Hall

540 E. Canfield, Detroit, MI 48201

For further information contact: Charbel Habib at 313-966-7433 Email: chabib@med.wayne.edu

