

## **Abstract**

Brain physiology represents an important aspect of brain function and tissue viability. Physiological parameters of the brain have been found to be sensitive biomarkers in various diseases. In this talk, Dr. Liu will introduce novel MRI techniques that measure oxygen extraction fraction (OEF), cerebral metabolic rate of oxygen (CMRO<sub>2</sub>), and cerebrovascular reactivity (CVR) non-invasively in the human brain, as well as examples of their clinical applications.