



The Singapore Bioimaging Consortium (SBIC)  
presents a seminar  
on

**"Spiral, Non-Gadolinium, and Advanced MRI Techniques in Pediatric Neuroimaging: *The Phoenix Children's Hospital Experience*"**

**Speaker:** Professor Houchun Harry Hu  
MR Scientific Radiology  
Phoenix Children's Hospital  
Arizona, USA  
**Host :** Dr Sendhil Velan  
**Date :** Monday, 10 April 2017  
**Time :** 2.00pm – 3.00pm  
**Venue :** SBIC Seminar Room  
11 Biopolis Way  
Level 2, Helios Building, Singapore 138667  
(Please enter via Level 1)

**Abstract**

In this presentation, Prof Hu will summarize the work that he has been involved with over the past 2.5 years at Phoenix Children's Hospital (PCH), primarily in developing advanced pediatric neuroimaging techniques for daily clinical usage. The topics Prof Hu will cover include accelerated non-Cartesian spiral anatomical and arterial-spin-labeling brain imaging (in collaboration with Jim Pipe from The Barrow Neurological Institute), non-Gadolinium-based angiography (in collaboration with colleagues from Philips Healthcare Japan), related concerns with intracranial Gadolinium deposition, and MR neurography and bone marrow fat quantification (in collaboration with colleagues from Technische Universität München). For each of these topics, he will describe some of the technical and methodological considerations, demonstrate each method's utility in clinical patients, and summarize advantages and shortcomings. To conclude the talk, Prof Hu will also briefly touch on some preliminary work at PCH in non-Gadolinium amide-proton-transfer MRI for brain tumors (in collaboration with Philips Research Hamburg) and our population-study of liver stiffness in obese children with Ultrasound Elastography.

**About the Speaker**

Prof Houchun Harry Hu received a B.S. degree in biomedical and biochemical engineering from the University of Southern California (USC) in 2001. He went on to study magnetic resonance imaging physics at the Mayo Clinic in Rochester, Minnesota, where he earned a PhD in 2006 under the guidance of Stephen J. Riederer, PhD. His doctoral thesis focused on rapid parallel MRI and angiography applications. From 2006 - 2009, he returned to USC and was a postdoctoral research associate under Krishna S.

Nayak, PhD. It was here that he developed a fond interest for water-fat MRI and its applications in body composition and obesity studies. From 2009 - 2014, Prof Hu was an Assistant Professor at Children's Hospital Los Angeles, and with the help of funding from the National Institutes of Health, he conducted research on characterizing brown adipose tissue with MRI. In June 2014, he joined Phoenix Children's Hospital as the hospital's first MRI physicist to initiate a clinical research program in pediatric neuroimaging. Harry is currently in transition from Phoenix to become the Director of Radiology and Imaging Research at Nationwide Children's Hospital in Columbus, Ohio, in June 2017. Prof Hu has co-authored approximately 70 peer-reviewed publications and serves as a Deputy Editor for Magnetic Resonance in Medicine (May 2012-May 2017) and an Associate Editor for the Journal of Magnetic Resonance Imaging (Jan 2017 – present). (<https://www.linkedin.com/in/houchunharryhu>)

***Admission is free and all are welcome ---***