

STUDY GROUP SESSION

Cardiac MR

Day: Wednesday, 11 May 2016

Time: 13:30-15:30

Room: Hall 405 E

Study Group Chair, Victor A. Ferrari, M.D.; **Vice-Chair,** Matthias Stuber, Ph.D.; **Secretary,** Tim Leiner, M.D., Ph.D.; **Past-Chair,** Debiao Li, Ph.D.;

Committee: 2016-2017 Incoming Committee: **Secretary:** Michael Salerno, **Trainee Representative:** Christopher Nguyen, Ph.D.;

SMRT Representative: Cindy Comeau, B.S.,R.T.(MR)(N)

Overview: One of the major challenges in cardiac MR is motion. ECG triggering, k-space segmentation, breath-holding and respiratory navigators are among the mainstays of motion suppression. However, recent and exciting advances in hardware, software and methodology provide unprecedented opportunity to explore new limits of spatial resolution, temporal resolution, and volumetric coverage. A broad spectrum of established and emerging approaches to motion suppression in cardiac MR will be discussed.

Established & Emerging Approaches to Motion Suppression in Cardiac MRI

13:30	Introduction - Welcome & Business Meeting	Debiao Li, Ph.D. Cedars-Sinai Medical Center, USA
13:40	Thinking Outside the Box I: How Navigators were Developed	Richard L. Ehman, M.D. Mayo Clinic, USA
13:55	Thinking Outside the Box II: Getting Rid of the ECG	Debiao Li, Ph.D. Cedars-Sinai Medical Center, USA
14:10	Thinking Outside the Box III: 5D & Total Self-Navigation	Ricardo Otazo, Ph.D. New York University School of Medicine, USA
Abstract Oral Presentations		
14:25	<i>Fetal Cardiac Cine Imaging from Motion-Corrected Super-Resolution Reconstruction of Highly-Accelerated Real-Time MRI</i>	Joshua F. P. van Amerom, B.Sc. King's College London, United Kingdom
14:35	<i>Coronary Atherosclerosis T_1-Weighted Characterization with Integrated Anatomical Reference (CATCH): Comparison with High-risk Plaque Features on OCT</i>	Yibin Xie, Ph.D. Cedars-Sinai Medical Center, USA
14:45	<i>An Iterative Approach to Respiratory Self-Navigation Allows for Improved Image Quality & 100% Scan Efficiency in Contrast-Enhanced Inversion-Recovery Whole-Heart Coronary MRA at 3T; A First Patient Study</i>	Giulia Ginami, M.Sc. Centre D'Imagerie BioMedicale - CIBM, Switzerland
14:55	<i>Cardiac & Respiratory Self-Gated 4D Multi-Phase Steady-State Imaging with Ferumoxytol Contrast (MUSIC)</i>	Fei Han, M.Sc. University of California, Los Angeles, USA
15:05	<i>A Golden-Angle Acquisition Coupled with k-t Sparse SENSE Reconstruction for Fetal Self Retro-Gated Cine Cardiac MRI: an In Vivo Feasibility Study</i>	Jerome Chaptinel, M.Sc. CHUV-CIBM, Switzerland
15:15	Discussion	Cardiac MR Committee
15:30	Adjournment	