

2011 MINNESOTA WORKSHOPS

Program Schedule

WORKSHOP ON HIGH AND ULTRA-HIGH FIELD IMAGING

FRIDAY OCTOBER 14th, 2011

7:30 AM Registration

8:25 AM Welcome Kamil Ugurbil

7T Body and Vascular Imaging: Why Bother?

Moderator: Thoralf Niendorf

8:30 AM Mitch Schnall

9:00 AM Jeanette Schulz-Menger
"Beside Cardiac Anatomy Insights into the Myocardium: Is there a Need of Higher Field Strengths?"

9:30 AM Matthew Robson
"7T Cardiac MR in Oxford: Destination, Determination & Deliberation"

10:00 AM BREAK

10:15 AM Jens Frahm
"Real-Time MRI – A New Horizon"

10:45 AM Maarten Versluis
"Vessel Imaging at 7T: Coronary Angiography"

11:15 AM Greg Metzger
"Non-Contrast Enhanced Angiography in the Human Torso at 7T"

11:45 AM Siemens Medical Systems
Bernd Stoeckel

12:05 PM LUNCH - BUFFET

Short TE Imaging: Invisible no More

Moderator: Klaus Scheffler

1:00 PM Jerome Ackerman
"Technical Challenges in Quantitative Solid State MRI of Bone Mineral and Matrix"

1:30 PM Michael Garwood
"Capturing Signals from Ultrafast Relaxing Spins with SWIFT MRI"

2:00 PM Bruker Physik GmbH
Holger Liebel

2:20 PM BREAK

¹H MRS

Bench-to-Bedside Translation?

Moderators: Gulin Oz and Risto Kauppinen

2:40 PM Kejal Kantarci

2:50 PM Richard Edden

3:00 PM Patrick Bolan
"Design of a Multi-site Clinical Trial of Breast MRS – ACRIN 6657"

3:10 PM Gulin Oz
"Clinical MRS at Ultra-High Field: Gains and Feasibility?"

3:20 PM Damien Galanaud

3:30 PM Round Table Discussion

4:00 PM BREAK

X-NUCLEI MRS

Is the SNR High Enough to make it Finally Useful?

Moderator: Malgorzata Marjanska

- 4:15 PM Arnaud Comment
"Hyperpolarized Magnetic Resonance Spectroscopy to Study in vivo Real-Time Metabolism"
- 4:45 PM Denis Klomp
"³¹P MRSI in the Human Body Makes Sense at 7T+"
- 5:15 PM Xiao-Hong Zhu
"High-Field ¹⁷O MRS/MRI for Studying Oxygen Metabolism and Perfusion"
- 6:30 PM **DINNER**
- TCF BANK STADIUM**
Dinner Speaker - David Van Essen
"The Human Connectome: Opportunities and Challenges"

SATURDAY OCTOBER 15, 2011

ENGINEERING

Dealing with Short Wavelengths

Moderator: J. Thomas Vaughan

- 8:30 AM Robin de Graaf
"Magnetic Field Shaping in the MR Imaging and Spectroscopy"
- 9:00 AM Nico Van den Berg
"Electric Properties Mapping at Ultra High Field: Methods and Applications"
- 9:30 AM Pierre-Francois Van de Moortele
"Transmit B1 Manipulations at High Field: What Does it Take to do What?"
- 10:00 AM BREAK**
- 10:15 AM Agilent Technologies
Darrin Holden
- 10:35 AM Gregor Adriany
"RF Coil Design Strategies for Ultra High Fields"

11:05 AM Andreas Bitz
"Numerical Simulation as a Tool for Compliance Testing of RF Transmit Coils"

POSTERS

Moderator: Michael Garwood

11:35 POSTER TALKS

12:00 Noon LUNCH and POSTER VIEWING

1:15 PM GE Healthcare
Douglas Kelley

fMRI @UHF

What is your Resolution?

Moderator: Juergen Hennig

1:35 PM Seong-Gi Kim
"Arterial CBV-based fMRI"

2:05 PM Jonathan Polimeni
"High and Ultra-High Field Imaging"

2:35 PM BREAK

2:50 PM David Norris
"Methods for High Resolution fMRI in Humans: Where do we go from Here?"

3:20 PM Federico De Martino

3:50 PM Philips Medical Systems
Kenneth White

4:10 PM BREAK

fMRI @UHF

Encoding or Decoding

Moderator: Alard Roebroeck

4:25 PM Rainer Goebel
"Looking Inside Specialized Brain Areas: Direct Mapping of Columnar-Level Features at Ultra-High Magnetic Fields"

- 4:55 PM Cheryl Olman
"Diversity in the Neural Code: Which Activity are We Trying to Infer?"
- 5:25 PM Frank Tong
"Decoding Visual and Cognitive Signals from the Human Visual Cortex"
- 6:15 PM **CMRR RECEPTION**

SUNDAY OCTOBER 16, 2011

Translational UHF Neuroimaging Is it Clinical?

Moderator: Noam Harel

- 8:30 AM Thomas Henry
"Ultrahigh Field Imaging of Gray matter Lesions: The Epileptic Hippocampus at 7 Tesla"
- 9:00 AM Pratik Mukherjee
"Clinical 7T Brain Imaging: Is there a Killer App?"
- 9:30 AM Yulin Ge
"What Ultra-High-Field (7T) Susceptibility Sensitive Brain MR Imaging Can Offer"
- 10:00 AM Aviva Abosch

10:30 AM BRUNCH

Human Connectome

Moderator: Greg Farber

- 11:30 AM Greg Farber
- 11:45 AM Derek Jones
"Tractometry"
- 12:15 AM Peter Basser
"Making the Invisible Visible with Diffusion MRI"
- 12:45 PM Christophe Lenglet

“Comprehensive in vivo Mapping of the Human Basal Ganglia and Thalamic Connectome in Individuals using High-resolution 7T MRI”

1:15 PM BREAK

1:30 PM Essa Yacoub
“High Field High Resolution Imaging of Brain Function and Structure”

2:00 PM Christian Beckmann
“Resting-State Functional Connectivity and the Human Connectome”

2:30 PM Bruce Rosen

3:00 PM CLOSING
Michael Garwood