

QIBA Perfusion, Diffusion and Flow – MRI Technical Committee Update Call

Wednesday, 07-August-2013 at 11 AM CDT (GMT-5)

Call Summary

Participants

Marko Ivancevic, PhD (Co-Chair)
Edward F. Jackson, PhD (Co-Chair)
Gudrun Zahlmann, PhD (Co-Chair)
Michael Boss, PhD
Orest B. Boyko, MD
Martin Buechert, PhD
Thomas L. Chenevert, PhD
Patricia E. Cole, PhD, MD

Barbara Croft, PhD
Bradley J. Erickson, MD, PhD
James R. Ewing, PhD
Daniel Gembris, PhD
Alexander Guimaraes, MD, PhD
Martha Heckel
Daniel M. Krainak, PhD
Hendrik Laue, PhD
David E. Purdy, PhD

Mark Rosen, MD, PhD
Daniel C. Sullivan, MD
Ying Tang, PhD
Jihong Wang, PhD

RSNA

Joe Koudelik
Madeleine McCoy

NIBIB Submission and Project Update (Dr. Zahlmann)

- The statistical updates suggested by Dr. Obuchowski (Metrology Work Group) were incorporated.
- The QIBA Steering Committee will be discussing project prioritization on August 29th.

DWI Phantom Update (Dr. Boss)

- The 3D printed polycarbonate DWI phantom shell was discussed and the CAD version displayed for design reference
 - Delivery of the DWI phantom is projected for today, 8/7/13
 - Dr. Boss will assemble the components and mix the various PVP filling solution concentrations
 - Dr. Boss will take pictures of the phantom to share with the group.
 - Stability of material, ADC measurements and various doping elements (Mn, Ni, NaCl) were addressed.
 - The outside rim has been internalized
 - Orientation markers are still under development
- Next Steps
 - Continue monitoring long-term stability of doped PVP8-20
 - Expand study to include high concentration, PVP8-50, possibly as high as PVP8-60 (60% polymer by mass)
 - Incorporate mixtures of Mn and Ni for simultaneous control of T1 and T2
 - Improve analysis workflow
- The maximum number of phantoms which could be produced is approximately 10 based on the volume of PVP8 filling solutions on-hand at NIST
 - PVP8 mixtures recommended to be created at NIST (Boulder) under Dr. Boss' supervision to avoid potential end-user issues
 - First three phantoms designated for Europe (IMI use) NIST (Dr. Boss), and the University of Michigan (Dr. Chenevert)
- Dr. Zahlmann requested a t-con be scheduled with IMI QuIC-ConCePT to discuss phantom test plan, shipment, scanning, analysis and other related activities.
- Please refer any questions or comments to Dr. Boss: michael.boss@nist.gov

Next t-con: Wednesday, August 21st at 11AM (CDT)

Agenda Items:

DWI Project Update
Compliance Discussion

RSNA 2013 Annual Meeting - QIBA Technical Committees Working Meeting:

- Wednesday, December 4th | 3:00pm – 5:00pm | Chicago, McCormick Place | Room: TBD
- Please let us know whether you plan to attend by responding to the following poll: <http://www.doodle.com/fwf76cegg78r75b>.
- We appreciate your continued support and look forward to your participation - Thank You!