

QIBA PDF–MRI (DWI) and IMI QuIC-ConCePT T-con

Tuesday, 19-November-2013 at 10 AM CST

Call Summary

Participants

Gudrun Zahlmann, PhD (Moderator)
Michael Boss, PhD
Joana Brilhante
Patricia E. Cole, MD, PhD
David J. Collins, BSC, BA
Philippe Garteiser, PhD
Edward F. Jackson, PhD

Yan Liu, PhD
David M. Morris, PhD
Solange Romagnoli
Daniel C. Sullivan, MD

RSNA

Joe Koudelik
Madeleine McCoy

General Discussion

Phantom Collaboration Overview (Dr. Boss)

- The ADC phantom was scanned at NIST (Colorado), University of Manchester, ICR (London) and Hospital Beaujon (Paris)
- Image data from all sites has been uploaded to the Quantitative Imaging Data Warehouse (QIDW)
- Preliminary data analysis has been performed by Drs Chenevert and Collins
- Close data points seen re most PVP concentrations across all imaging sites
- Benefits of Axial vs. Coronal imaging discussed
- Dr Boss to update image acquisition protocol and circulate among all participating sites
- Drs Boss, Chenevert and Collins to discuss data off-line and how to integrate separate analysis methodologies in efforts to best inform the Profile
- Dr Boss submitted the DWI project abstract to ISMRM for the May 2014 meeting in Milan

Next steps

- Re-scan of phantom in Paris and London using revised axial imaging protocol
- After re-scan phantom will be sent back to NIST
- Following the phantom study, clinical collaboration needed between QIBA and IMI for Profile development
- Liver lesion B-value validation per vendor systems deemed useful for the Profile, but may prove challenging
- Next round of follow-up acquisitions to be analyzed by Drs Chenevert and Collins using multiple algorithms
- IMI efforts to focus on biological understanding, while QIBA to focus on obtaining the best image quality
- High-quality imaging remains critical and the first step toward quality control
- Pathology validation (i.e., baseline biopsies) discussed in efforts to pursue bio-validation sought by pharma
- Pathology is needed to support imaging results; multiple biopsies (i.e., test/retest) may be difficult or impossible to obtain at most institutions since these do not directly benefit the patient
- Dr Boss welcomes feedback from all DWI phantom end users in efforts to make any needed design changes to the next run of 6-10 phantoms
- Next call: Tuesday, December 10th at 1pm (CT)