

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

Wednesday, 04 March 2015 at 11 AM CT

Call Summary

Participants

Michael Boss, PhD (Co-Chair)
Rajpaul Attariwala, MD, PhD
Daniel Barboriak, MD
David Bennett, PhD
Mark Brown, PhD
Martin Buechert, PhD
Thomas Chenevert, PhD
Caroline Chung, MD
Amita Shukla Dave, PhD
Bradley J. Erickson, MD, PhD

James Ewing, PhD
Jacob Fluckiger, PhD
John Garber, MBA
Daniel Gembris, PhD
Alex Guimaraes, MD, PhD
Edward Jackson, PhD
John Kirsch, PhD
Daniel Krainak, PhD
Hendrik Laue, PhD
Chen Lin, PhD

David Purdy, PhD
Walter Schneider, PhD
Mark Shiroishi, MD
Ying Tang, PhD
Jihong Wang, PhD
Kilian Weiss, PhD
Junqian (Gordon) Xu, PhD
Dewen Yang, MD, PhD
Gudrun Zahlmann, PhD
Yuxiang Zhou, PhD

RSNA

Joe Koudelik
Julie Lisiecki
Susan Weinmann

General Discussion

REMINDERS

- [Call for Abstracts](#) - RSNA 2015: **the deadline is Wednesday, April 8, 12:00 Noon Central Time.**

Updates - Round 4 project reports (Dr. Jackson)

- Dr. Jackson's software project is progressing and on track to meet the Sept 2015 deadline
- Software designed to auto-analyze data acquired using the DCE-MR physical phantom
- Software developed and tested on three major vendor systems using 1.5T and 3T

Updates - Round 4 project reports (Dr. Barboriak)

- Dr. Barboriak's software analysis project is an extension of his previous project; resulting in extensive analysis of T1 mapping using synthetic data (DRO)
- Results have demonstrated the need to sample parameter space more appropriately
- More realistic DROs being created to mimic dynamic parameters
- Outstanding question remains how to make a binary decision re software performance based on massive acquired data; additional discussion needed

DTI Task Force Update (Dr. Schneider)

- Drs. Schneider and Provenzale recently met at Duke to outline goals and a timeline
- Diffusion imaging of the brain using 3T platforms will be the Profile focus
- Characterizing the workflow process and additional performance frontiers to assess imaging "goodness"
- Additional sample data is needed to assist with formulating the Profile claim language
- Drs. Boss and Guimaraes offered their assistance with Claim development
- The possibility of multiple DTI Claims based-on supporting literature discussed
- A draft Profile for committee review is expected by September 2015, with public comment soon after
- Dr. Krainak suggested the DICOM 181 Supplement as a useful reference
ftp://medical.nema.org/medical/dicom/supps/Drafts/sup181_MR_Diffusion_Tractography_Storage_08.pdf

DWI Task Force Update (Dr. Boss)

- The DWI TF held its inaugural call and Profile feedback is being received
- Cross-sectional vs. longitudinal Claim language was compared
- The need to associate the DWI claim to both the current phantom and a clinical use-case was voiced
- Need to better define "isocenter" within the Claim language
- Separate stat tables suggested for different organ systems
- Claim rational re technical capabilities (phantom) vs. best practices to be discussed on an upcoming DWI TF call

Next t-con: March 18, 2015, 11 AM CT