

QIBA Perfusion, Diffusion and Flow – MRI Biomarker Committee (BC) Call

Wednesday, March 29, 2017 at 11 AM (CT)

Call Summary

Participants

Michael Boss, PhD (Co-Chair)

David Bennett, PhD

Joseph Borrello

Caroline Chung, MD

Catherine Coolens, PhD

Amita Shukla Dave, PhD

Timothy Dondlinger

Daniel Gembris, PhD

Jim Gimpel, RT (R)(MR)

Hendrik Laue, PhD

Chen Lin, PhD

Elizabeth Mirowski, PhD

Nancy Obuchowski, PhD

Samir Sharma, PhD

Ying Tang, PhD

Junqian (Gordon) Xu, PhD

Robert Young, MD

Yuxiang Zhou, PhD

RSNA

Joe Koudelik

Susan Weinmann

Moderator: Dr. Boss

DWI Profile Status Update (Dr. Boss)

- Vote-to-release e-ballot, sent out to 20 PDF-MRI BC eligible voters, closed with 16 “Yes” and 0 “No”, thus approving Profile release for MR CC review/approval
- [MR Coordinating Committee voting members](#) to cast e-ballot to approve the DWI Profile for public comment by the April 7 deadline.
- Next Steps:
 - Prepare Profile draft for [Public Comment Stage](#)
 - Release for [Public Comment Process](#)

DCE TF Update (Drs. Laue & Wu)

- Change of DCE TF regular standing time slot noted
 - Effective March 30, call moved from 11 AM CT on Tuesdays to 11 AM CT on Thursdays
 - The call has also been shifted by a week to prevent QIBA members having to attend multiple MR TF calls on the same day, e.g. DCE & DWI
- Overview (details from Dr. Laue’s TF update presentation)
 - Groundwork project on B1
 - Phantoms being delivered to UCLA
 - Vendor Subcommittee led by Dr. Kirsch reactivated and providing input needed to finalize the protocols in the DCE Profile
 - NIST independent T1/conductivity verification is in progress
 - Profile writing: Sections 3.4, 3.5 and 3.6
 - Redundancies being removed
 - Text being reorganized and relocated to appropriate places
 - Tables are being completed with values derived from literature review
 - PDF-MRI BC members are encouraged to review the DCE Profile Google Doc and add comments by contacting **Drs. [Laue](#) or [Chung](#)** for the link

- Literature search status
 - Brain, head and neck have been completed
 - Prostate is nearly finished
 - Parallel: selected test-retest publications:
 - Sample size of 35 patients is recommended in QIBA groundwork studies
 - Limited test-retest data on Liver
 - Liver (2016, 26 patients, 1.5T+3T, GKM+SSM)
 - Liver (10 patients 1.5+3T, eGKM+SSM)
 - Dr. Obuchowski recommended examining the data to determine how estimates of coefficient of variation differ between the above two liver studies
 - If one paper provides more robust elements of repeatability than the other (based on imaging techniques), paper relevance may be weighed differently
 - Dr. Boss to reach out to authors of test-retest papers and request their data for analysis
 - Paper authors cited in Profile to be added to DCE TF roster
 - Kidney (21 patients, 3T, eGKM, with Weinmann)
 - Brain (9 patients, 1.5T, Tofts Kermode)
 - Claim definition
 - Brain claim is complete and will be published soon
 - Liver claim will be available soon Prostate claim – work still needed
- April 13 DCE TF call to include discussion on statistical analysis of test-retest studies cited in the Profile
 - Dr. Chung to moderate next DCE TF call on March 30

Upcoming PDF Task Force Updates:

- April 12 – DTI Task Force
- ~~April 26~~ – No PDF-MRI call due to ISMRM
- May 10 – DWI Task Force
- May 24 – DSC Task Force
- ~~June 7~~ – No PDF-MRI call due to reallocation of time to quarterly MR CC t-con
- June 21 – DCE Task Force

Next PDF-MRI Biomarker Committee Call: Wednesday, April 12, 2017 at 11 AM CT (DTI Update)