

QIBA Diffusion-Weighted Imaging (DWI) MR Biomarker Committee (BC) Meeting

Tuesday, April 25, 2023, at 1 pm (CT)

Meeting Summary

Participants

Michael Boss, PhD (Co-chair)

Dariya Malyarenko, PhD (Co-chair)

Daniel Margolis, MD (Co-chair)

Trevor Andrews, PhD

Rajpaul Attariwala, MD, PhD

Thomas Chenevert, PhD

Amita Shukla Dave, PhD

Nandita deSouza, MD

Kevin Miller, MS

Dafna Sourani-Link, PhD

Lisa Wilmes, PhD

Jessica M. Winfield, PhD

RSNA

Susan Stanfa

Discussion Topics

- H&N ADC repeatability groundwork project update
- AI algorithms for image quality improvement
- Room temperature phantom
- CaliberMRI Conformance Testing Supplement
- White paper
- Pause on new QIBA efforts

Action Items:

- Subject recruitment for the H&N ADC repeatability groundwork project continues
 - Out of the ~200 patients screened, only 6 have completed MR scans
 - Suggestion that Dr. Guzmán seek a no-cost extension of the RSNA R&E grant before drawing upon independent funding
- Use of AI algorithms for image quality improvement in DWI acquisition, particularly regarding noise reduction
 - May be very impactful and quality assessment procedures in DWI Profile may need to be adjusted accordingly, or at least proper utilization to be confirmed
 - 15-20-minute vendor presentations to be done during upcoming DWI BC meetings
- Room temperature phantom quality assessment procedures to be included in streamlined version of stage 3 DWI Profile
- White paper TF has made progress on literature review based on disease sites
 - Text to be limited to organs in the current version of the DWI Profile; data to be organized via table
 - Dr. Obuchowski to be consulted on:
 - Incorporation of papers relevant to prostate into a metanalysis and assistance with the development of a cross-sectional Claim
 - Inclusion of confidence intervals for repeatability coefficients
 - Data from publications on healthy subjects may be included in a separate table
- New QIBA activities, e.g., MR CC review of the Whole Body DWI BC proposal, are paused until the RSNA BOD has assessed the QIBA performance review conducted by a special Task Force of the RSNA Science Council
 - Board directives resulting from this comprehensive study of QIBA's activities will be ready following the mid-June RSNA Board meeting

Next Steps:

- Dr. Dave to reach out to Dr. Banerjee (GE) for her availability to present during an upcoming DWI BC meeting
- Mr. Miller to contact Canon Medical for their availability to present during an upcoming DWI BC meeting
- Mr. Miller to send CaliberMRI supplement to Drs. Boss, Chenevert, and Malyarenko for review prior to posting on the QIBA Wiki
- **Next DWI-MR BC Meeting:** Tuesday, May 30, 2023, at 1 p.m. CT [one-time off-schedule to avoid conflicts]