

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

Tuesday, November 22, 2022, at 1 pm (CT)

### Meeting Summary

#### Participants

Michael Boss, PhD (Co-chair)

Dariya Malyarenko, PhD (Co-chair)

Trevor Andrews, PhD

Rajpaul Attariwala, MD, PhD

Thomas Chenevert, PhD

Amita Shukla Dave, PhD

Moti Freiman, PhD

Daniel Margolis, MD

Peter Ngum, MSc

Nancy Obuchowski, PhD

Savannah Partridge, PhD

Humera Tariq, PhD

Lisa Wilmes, PhD

Gudrun Zahlmann, PhD

#### RSNA

Susan Stanfa

#### Topics:

- QIBA-related RSNA Annual Meeting events
- Update on Profile revisions
- QIBA DWI BC Kiosk Poster: “Engaging with Sites Informs and Improves QIBA Profile Conformance Process”
- Presentation from Moti Freiman, PhD, at the Technion Human MRI Research Center
- Recruitment of Clinical Radiologist DWI BC Co-chair

#### Next Steps / Action Items:

- The Quantitative Imaging Symposium sponsored by QIBA, and the following breakout sessions will be held on Wednesday, Nov. 30; **staff to re-send details on all QIBA-related events, including times and room numbers**
- The following Profile-related tasks need to be completed:
  - Reference needed for item in 2.1 Clinical Context; **Drs. Attariwala and Margolis to provide citations**
  - Feedback to be requested from CaliberMRI
  - Vote-to-publish the Profile as Clinically Feasible (Stage 3) to be initiated by the BC then the MR CC
- QIBA DWI BC Kiosk poster: while there are no scheduled lunchtime poster sessions, QIBA volunteers are welcome for attendee discussion of their posters at the QIBA Kiosk, as their schedules allow
- Introduction of Moti Freiman, PhD, Academic Director at the Technion Human MRI Research Center
  - The research center is affiliated with engineering faculty
  - Goal is leveraging current technology, e.g., computing ADC, and seeking opportunities to develop new techniques, e.g., accelerated constructions, coils, etc.
    - Specific research interest in combining artificial intelligence and quantitative imaging biomarkers
  - Human MRI research: predicting response to neoadjuvant chemotherapy in invasive breast cancer with Physiologically-Decomposed Diffusion-Weighted MRI machine-learning model
  - Equipment in the Center includes a MRI scanner, fMRI, and peripheral, e.g., mock scanner, EEG-MRI System, Kin robotic system for motion analysis
  - Center Manager, Dafna Sourani-Link, PhD, to attend the QI Symposium & breakout sessions
    - **Dr. Freiman will connect Drs. Boss and Zahlmann with Dr. Sourani-Link**
  - As the DWI Profile advances to stage 3, the hope is to collaborate with Drs. Freiman and Partridge to implement the Profile in clinical trials to obtain quality, quantitative information to combine with some of the other types of data mentioned, e.g., clinical information, clinical outcomes, genetic markers, etc.
  - May help facilitate research scans often difficult in other institutions performing routine clinical patient scans
  - Opportunity to explore other aspects of diffusion, e.g., whole body, kurtosis, etc.
- Radiologist as third DWI BC Co-chair suggested to provide input and clinical perspective during advancement to stage 3
  - DWI BC has continued interest in prostate, and in helping PIRADS to become quantitative
  - Discussion to be continued in Chicago during the Annual Meeting

- Next steps for the DWI BC include adopting the new streamlined Profile template in the 2023 version of the Profile and continuing progress on the White Paper

**Next DWI-MR BC Meeting:** Tuesday, January 24, 2023, at 1 p.m. (CT) [RSNA closed on Dec. 27, 2022]

Zoom meeting link: <https://rsna-org.zoom.us/j/83547454118?pwd=VU5La0RRYXV5eDRlYzVrQjNGWGZCZz09>

Meeting ID: 835 4745 4118 | Passcode: DWI

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