

## QIBA Musculoskeletal (MSK) Biomarker Committee (BC) Meeting

Tuesday, January 25, 2022, at 10 a.m. CT

### Meeting Summary

#### In attendance

Xiaojuan Li, PhD (Co-chair)

Thomas Link, MD, PhD (Co-Chair)

Michael Boss, PhD

Angie Botto-van Bemden, PhD

Robert Boutin, MD

Majid Chalian, MD

Hung Do, PhD

Maggie Fung, MEng

Ali Guerhazi, MD, PhD

Kecheng Liu, PhD, MBA

Nancy Obuchowski, PhD

Chris Peng, PhD

Rianne van der Heijden, MD, PhD

Cory Wyatt, PhD

Yansong Zhao, PhD

Xiaodong Zhong, PhD

#### RSNA

Joe Koudelik

Susan Stanfa

#### Topics Discussed

- Profile advancement plans - [Stage 3: Technically Confirmed \(TC\)](#)
- Need for training of T1rho and T2 imaging to the community
- How to eventually distribute Profile to community for adoption / promote technology

#### Next Steps

- This iteration of the MSK Profile will be based in part on results from Dr. Li's NIH R01 multicenter/multi-scanner grant study which includes four sites and three major vendors: Cleveland Clinics (Drs Li and Winalski), University of Kentucky (Dr. Hardy), Albert Einstein University Hospital (Dr. Peng) and UCSF (Dr. Link)
- The T1rho/T2 map sequence has been installed at the four sites and performance will be assessed; traveling volunteers to be scanned at all four sites in Q4 2022
- Other sites to implement the sequence include University of Washington Medical Center (Dr. Chalian) and Erasmus (Dr. Oei); Drs. Chalian and Li met with Philips scientists and they will follow up re: transition of sequence
- Additional sites may include Baptist Health South Florida Hospital, Arthritis Foundation Osteoarthritis Virtual Clinical Trial Network (including Duke, UNC, and Iowa), Vanderbilt, and OSU
- Drs. Botto van Bemden and Fung to reach out to orthopedic doctors in Qatar and Italy (Dr. Link to follow up with her after meeting and draft introductory email text to send); Dr. Link is also reaching out to a site in Sao Paulo, Brazil
- Dr. Li awaits the second version of a prototype (funded through NIH R01 grant) to be made available to CCF, University of Kentucky, Einstein and UCSF
  - Dr. Li anticipates receiving the version with correction of the compatibility problem with materials by the end of February and will evaluate whether she can proceed with it
  - Alternatively, a simpler and cheaper phantom from Phantom Lab (<https://www.phantomlab.com/contact>) may be used for sites that will not have the NIST phantom
- Due to the availability of testing site resources, a combination of stages 3 and 4 is an option for the MSK BC, however, if significant changes to the procedures need to be made in response to stage 3 site feedback, a new iteration of the Profile would be required
- MSK TF may be formed to develop educational/training workshop on T1rho and T2 imaging in efforts to further implement the Profile
  - Hands on workshop including the process of scanning, segmentation, and analysis based on software recommendations and insights from manufacturers (Drs. Hardy and Peng) may be considered; Dr. Li to cover technical aspects and Dr. Link to cover clinical
  - Suggestion to present at [International Workshop on Osteoarthritis Imaging \(IWOAI\)](#) and ISMRM may be asked to co-sponsor this workshop
- Profile for Sarcopenia may be considered after MSK Profile is close to its final version

**Next Meeting:** Tuesday, February 22, 2022, at 10 a.m. CT [4<sup>th</sup> Tuesday of each month]