QIBA Musculoskeletal (MSK) Biomarker Committee (BC) Meeting

Tuesday, November 22, 2022, at 10 a.m. CT **Draft Meeting Summary**

Mei Li, MD

Susan Stanfa

In attendance **RSNA**

Xiaojuan Li, PhD (Co-chair) Thomas Link, MD, PhD (Co-Chair) Ruud de Boer, PhD Edwin Oei, MD Donald Anderson, PhD Natália Favoreto, MS, CCRC Chris Peng, PhD

Michael Boss, PhD Maggie Fung, MEng Brian Pietrosimone, PhD, ATC

Majid Chalian, MD

Angie Botto-van Bemden, PhD Peter Hardy, PhD Stacy Smith, MD

Rianne van der Heijden, MD, PhD Robert Boutin, MD Gabby Joseph, PhD Jean Brittain, PhD Jason Kim, PhD Jiming Zhang, PhD, DABMP(MR), MRSE

Topics Discussed

- QIBA MSK Profile Stage 3 and 4 Conformance Testing Updates (Dr. Li)
- Progress on site testing (Site Investigators)
- Update on Calimetrix MSK phantom manufacturing timeline (Dr. Brittain)

Next Steps / Action Items

Site Investigator Updates

- R01 study site investigators including Drs. Hardy (University of Kentucky), Peng (Einstein), Liu (UCSF) provided updates on their progress in Round Robin 1 scanning using the Phantom Lab phantom
 - Some issues with measuring phantom temperature were reported

QIBA MSK Profile Stage 3 and 4 Conformance Testing Updates (Dr. Li)

- Data collection for the Round Robin 1 phantom study has been completed
- After Dr. Li checks UCSF data, the phantom will be shipped back to the Cleveland Clinic (CC)
- The CC will do one more measurement to assess the phantom (from study beginning to end)
- Next step is data analysis to assess differences between GE, Philips, and Siemens platforms, after which Round Robin 2, using the Calimetrix phantom prototype, will be planned
- The protocols generated on each platform can be potentially disseminated electronically to other sites using the same software

Update on Calimetrix MSK phantom manufacturing timeline (Dr. Brittain / Rutkowski)

- Phantom prototype diameter was reduced for a proper fit in the knee coil
- Additional clarification needed on phantom design for Round Robin 2 before manufacturing will begin
- Phantom vial content stability data on the different formulations are being gathered; the 13 scanning sites should start human subject scans in the meantime
- October 2022 September 2023: Human and phantom data collection by sites
 - o The Stage 3: Technical Confirmation Resolutions Google Sheet will be used to record testing site feedback
 - o A DUA will be needed between each QIBA site and the Arthritis Foundation (AF) prior to human subject
 - o CC is serving as the coordinating site for this study; it will perform centralized data processing for both phantoms and human subjects, then deposit the anonymized data into the Arthritis Foundation (AF) Osteoarthritis Image Repository, which will be developed and managed by the CC
 - Some sites still need to address various institutional paperwork-related issues, but others should start on human data collection while waiting to receive phantom

• Due to RSNA being closed during the last week of December, there will not be a meeting that month

Next Meeting: Tuesday, January 24, 2023, at 10 a.m. CT – *no December meeting* [4th Tuesday of each month] Zoom meeting link: https://rsna-org.zoom.us/j/81459724817?pwd=TkJPYTUrOEpzKy80SnNJNnIDRC9WUT09

Meeting ID: 814 5972 4817

Passcode: MSK

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