

# QIBA fMRI Biomarker Committee (BC) Call

Wednesday, January 24, 2018 at 11 AM CT

Call Summary

## In attendance

*Feroze Mohamed, PhD (Co-chair)*

*Jay Pillai, MD (Co-chair)*

Cathy Elsinger, PhD

Edward Jackson, PhD

Andrew Kalnin, MD

Nancy Obuchowski, PhD

Flavius Raslau, MD

James Reuss, PhD

David Soltysik, PhD

James Voyvodic, PhD

Zhiyue Jerry Wang, PhD

## RSNA

Joe Koudelik

Susan Weinmann

## Review of Previous Call Summary

- The 01.10.18 call summary was approved as presented

## fMRI Profile v1.0 Status Update

- Discussion ensued on 4.5.1 Assessment Procedure: fMRI Center-of-Mass Reproducibility (Claim)
  - Discussion regarding the usefulness of Profile v1.0 for clinical practice
  - Profile conformance remains an issue to be addressed; real-world feasibility testing needed to determine whether imaging sites would invest the extra time/effort required by following the Profile
  - Achievement of QIBA conformance will need to be demonstrated by successfully conducting an assessment procedure
  - Differing requirements for site conformance vs. actor conformance discussed, e.g. sites required to generate test-retest data
  - Suggestion made to divide assessment procedures into subsections by actor type; each actor would have required performance tests to pass to prove conformance
  - Discussion on commercial software packages and steps required for manufacturers to demonstrate QIBA conformance
  - Link to the Quantitative Imaging Data Warehouse (QIDW) at: <http://qidw.rsna.org/> included for data sets to help assess performance, or conformance to the Profile Claims
  - Next step is to create a check list that would include actor-specific procedures and provide a method to measure conformance; actors to include:
    - Scanner manufacturers
    - Software vendors
    - Sites
  - The Profile user needs to:
    - Be able to acquire data from the scanner that matches the QA measurement data within QIBA Profile specifications
    - Demonstrate that center-of-mass calculation is within QIBA Profile specifications (can be assessed using DROs)
    - Assess bias and repeatability using the data provided

- FDG-PET check list to be used as a reference: it is located at the end of the Profile document on the QIBA Wiki at: [http://qibawiki.rsna.org/images/1/1f/QIBA\\_FDG-PET\\_Profile\\_v113.pdf](http://qibawiki.rsna.org/images/1/1f/QIBA_FDG-PET_Profile_v113.pdf)
- CT Volumetry BC is conducting feasibility-testing and the draft check list can be found on the QIBA Wiki at: [http://qibawiki.rsna.org/images/3/35/QIBA\\_CVol\\_TumorVolumeChangeChecklist-20161205\\_-\\_Field\\_Test\\_version\\_1.0.docx](http://qibawiki.rsna.org/images/3/35/QIBA_CVol_TumorVolumeChangeChecklist-20161205_-_Field_Test_version_1.0.docx)
- Conformance issues in Profile v1.0 would be magnified in Profile 2.0 due to greater challenges associated with language; suggestion to refine any identified issue now
- Most scanners deemed capable of attaining Profile conformance with minimal effort; software analysis packages may pose greater issues with conformance though, potentially hindering overall site conformance
- Dr. Mohamed to draft an fMRI checklist using the CT Volumetry checklist as a template; Dr. Elsinger volunteered to assist
- Discussion regarding procedure for addressing public comments
  - RSNA staff compile comments into a Google Sheet and provide editing privileges to key group members; anyone with a link can view without logging into a Google account
  - A column is added to track the actions taken on each comment and indicate how/whether the comment was resolved in the consensus draft of the Profile
  - Issues are closed by group consensus (complete unanimity not required)
  - Inevitably, some issues will be left open and will be listed at the beginning of the consensus draft of the Profile
  - Suggestion to first conduct a high-level overview of comments received to look for thematic issues that need to be addressed (to avoid getting mired in a single comment)
  - The second phase of addressing comments would address minor, or low priority issues such as grammatical errors
- Drs. Mohamed and Pillai to connect offline next week to discuss check list

#### **Update on Dr. Voyvodic's multisite DRO project & Round 5 project manuscripts in preparation**

- Dr. Voyvodic to provide update during January 30 fMRI Bias TF call

#### **Next calls:**

- QIBA fMRI Bias TF call – Tuesday, January 30, 2018 at 1 PM CT
- QIBA fMRI Biomarker Committee call – Wednesday, February 7, 2018 at 11am CT

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