# QIBA fMRI Biomarker Committee Call Summary Wednesday, August 24, 2016 at 11 AM CDT

**Call Summary** 

In attendance RSNA

Ted DeYoe, PhD (Co-Chair)Jay Pillai, MDJames Voyvodic, PhDFeroze Mohamed, PhDDavid Soltysik, PhDKirk Welker, MDNancy Obuchowski, PhD

Joe Koudelik Susan Weinmann

Moderator: Dr. Mohamed

## **Review of Previous Call Summary**

• The 07.27.2016 call summary was approved as presented

### Profile 1.0 draft review (Dr. Mohamed et al.)

- Drs. DeYoe, Elsinger and Mohamed have been working on Profile
- Outstanding issues/gaps and changes due to reproducibility study to be discussed
- DRO results demonstrating a quantitative index process to detect activation to be incorporated
- Profile v1.0 to focus on motor cortex and incorporate Dr. Voyvodic's DRO data and paradigms
- Table 3.8.2 Specification
  - o Added table and crucial data
  - o Image data processing, including image correction is addressed
  - BOLD Map Thresholding: if manual setting is being used, a peak threshold value in the vicinity of the motor cortex to be found (vicinity of the posterior frontal lobe and anterior parietal lobe), and 50% of this peak to be computed to determine the threshold
  - o Clustering Identification or Region of Interest:
    - Single largest cluster in the vicinity of the posterior frontal lobe and anterior parietal lobe
    - The Claims in this Profile do not support situation in which multiple clusters appear in that region of the cortex
    - Dr. Voyvodic to add cluster definition criteria for motor cortex data
- Claim to be modified based on Dr. Vovyodic's DRO motor task data
  - o Dr. Voyvodic to recalculate numbers to be more precise for Claim
  - Dr. Obuchowski advised that the Claim should be defined mathematically, e.g., the value needs to represent the following specific statistic: "The +/-5 mm precision value represents 1.96 x within-subject standard deviation"

- Table 3.5.2 Specification
  - o Data from reproducibility study to be added
  - o 200 sec., (20 sec. ON, 20 sec. OFF) x 5 should be the acceptable motor task timing used in the reproducibility studies supporting the Claim
  - 208 sec. should be the acceptable scan duration timing used in the reproducibility studies supporting the Claim
- Dr. Mohamed to send updated Profile to Drs. DeYoe and Voyvodic for values to be incorporated
- Present draft to be circulated for internal BC review, noting:
  - o Specific issues to be addressed prior to 1.0 release for wider public comment
  - o Areas for future development after 1.0 release

## General

Development of an fMRI poster for the RSNA 2016 Annual Meeting to be discussed at a later date

#### **Next calls:**

- QIBA fMRI Bias TF call Tuesday, August 30 at 11am CDT
- QIBA fMRI Biomarker Committee call Wednesday, September 7 at 11am CDT