QIBA fMRI Biomarker Committee Call Summary Wednesday, April 22, 2015 at 11 AM CT

Draft Call Summary

In attendance

Jeffrey Petrella, MD (Co-Chair)Nancy Obuchowski, PhDZhiyue Jerry Wang, PhDRSNAJames Reuss, PhD (Co-Chair)Jay J. Pillai, MDDaniel Sullivan, MDJoe KoudelikAndrew J. Kalnin, MDDavid Soltysik, PhDGudrun Zahlmann, PhDSusan WeinmannFeroze Mohamed, PhDJames Voyvodic, PhDYuxiang Zhou, PhD

General Announcements:

1. Review of previous call summary – approved as submitted

Old Business:

- 1. Review proposals for NIBIB RFR 1st drafts due 4/27!
 - This discussion took up most of the hour-long call
 - Dr. Mohamed discussed this project
 - Two paradigms = language and lateralization
 - In year five, this group proposes to address language mapping issues in order to add two important quantitative claims to the version 1.1 fMRI Profile
 - Will test following hypotheses:
 - The spatial distribution of activations within homologous ROIs will be highly variable between subjects
 - The relative amplitudes of activations between frontal and temporal areas will be highly variable between subjects but less variable within subjects
 - The relative amplitude of activations between homologous ROIs in different hemispheres in the same subject will be similar between scans (laterality)
 - The upper half of the AMPLE spatial activation profile for homologous ROIs in the same subject will be similar between scans (spatial extent)
 - Inter-scan repeatability within subject will be greatest for scans that meet the quantitative data quality constraints (SNR, motion, performance, NV) identified in year four study
 - In testing the above hypotheses, the group will also consider alternative analysis and normalization strategies to see if they yield improved repeatability than the AMPLE approach
 - Deliverables
 - Quantitative spatial extent and laterality claims for fMRI language Profile 1.1
 - Quantitative data quality constraints to qualify fMRI Profile 1.1
 - Sample language repeatability scans will be uploaded to the QIDW to support findings
 - Detailed budget information is not expected at this stage; and estimate is sufficient
- 2. DRO Project update (Dr. DeYoe, Dr. Voyvodic)
 - Dr. Voyvodic will make revisions to the proposal based upon feedback from the group will send to r.
 Pillai first
 - Repeat different tasks in same subject
 - Same tasks in different subjects
 - HIPAA issues
- 3. QIBA Annual Meeting, May 6th-7th profile working session planning
 - Focus of the breakout sessions will be continued Profile development

- fMRI Profile ver 1.0 to be ready for Public Comment by October 2015
- 4. Profile Development (Feroze Mohamed) continuing work

Next calls:

- QIBA fMRI Bias TF call (to focus on round 5 projects) Tuesday, May 12th, at 10am CT
- QIBA fMRI Biomarker Committee call Wednesday, May 20th, at 11am CT