

QIBA fMRI Biomarker Committee Call Summary
Wednesday, March 9, 2016 at 11 AM CST
Call Summary

In attendance

Edgar DeYoe, PhD (Co-Chair)

James Reuss, PhD (Co-Chair)

Thomas Chenevert, PhD

Cathy Elsinger, PhD

Edward Jackson, PhD

Feroze Mohamed, PhD

Nancy Obuchowski, PhD

Jay Pillai, MD

David Soltysik, PhD

James Voyvodic, PhD

Yuxiang Zhou, PhD, DABR

RSNA

Joe Koudelik

Susan Weinmann

Moderator: Dr. DeYoe

Review of Previous Call Summary

- The call summary was approved as amended

Profile 1.0 status draft (Dr. Mohamed, et al.) – MEETING FOCUS

- Drs. Mohamed, DeYoe and Pillai have been working on various aspects of this document
- Profile 1.0 content is being converted to the latest Profile template, which can be found on the QIBA Wiki at: http://qibawiki.rsna.org/index.php?title=Main_Page
- Polished draft to be ready for distribution to fMRI BC by the end of March (~two weeks prior to the QIBA Annual Meeting)
- fMRI BC Members to review the Profile and identify high-level issues for discussion at the QIBA Annual Meeting breakout session;
 - Missing content/sections
 - Discuss “testing” of this Profile
 - What is needed for moving forward with version 2.0
 - “Big picture” discussion
- Agenda for fMRI breakout session to be drafted
- Profile to be updated after QIBA Annual Meeting and distributed for internal feedback
- Profile will be available for public comment through Fall 2016
- Funding for feasibility testing to be discussed

NIBIB Round-5 project status (Drs. Voyvodic & Pillai)

- Dr. Voyvodic reprocessed 600 patient scans
 - Had 4 staff members perform subject scoring on 991 language scans in efforts to filter-out unacceptable exam scans/data
 - 200 subjects out of the original 600 meet QA criteria and will be studied further
 - Because language areas are the same, difference in paradigms can be corrected
 - Goal is to localize language areas in efforts to increase scan reproducibility and correct observed differences among paradigms used
- Dr. Pillai has submitted his 3-month project report to RSNA staff

- Goals are similar to Dr. Voyvodic's project, but with fewer subjects
- Original goal was 30 – 50 subjects; but will be exceeded slightly
- Two paradigms chosen because one is the same as incorporated in ASSR clinical trials and they are well-established
- Slightly different language areas are activated
- Challenge is to sample data sets and narrow down to 15 – 16
- Looking at repeatability for each of the two paradigms

Profile 2.0 general discussion of scope (all)

- While version 1.0 focused on motor-mapping, 2.0 will expand upon that and focus on language
- Issues unable to be addressed in version 1.0 will be revisited in 2.0
- Thresholding remains an open issue in version 1.0
 - Need to discuss different thresholds that might be used
 - Thresholding is needed to meet claim
 - Threshold used will not affect center of mass
 - Multiple thresholds will work and results will be similar
 - Threshold and QA parameters in version 1.0 to be addressed before moving forward with 2.0
- There is a great deal of interest and demand for clinical trials for brain using fMRI
- Need to determine audience(s) interested in quantitating fMRI; the Profile should be written to capture a wide audience
- Profile version 2.0 will be drafted, based on a clinical trials use case
- Profile topics in order of priority:
 - Pre-surgical mapping/planning
 - Motor-mapping
 - Language-mapping
- Applications for quantitating fMRI were discussed
- The main challenge is to figure out how to make fMRI reproducible/quantitative

QIBA Annual Meeting: April 13 – 14, 2016 at the Hilton Alexandria Old Town in Alexandria, VA

- The majority of breakout session time will be spent discussing open issues in the Profile
- Group members were encouraged to complete the online meeting registration form, if they have not done so

NIBIB round 6 – prepare concepts for BC consideration (all)

- The timeline for Round-6 project proposals has been distributed
- High-level project concepts should be submitted directly to BC leaders asap
- Because QIBA has continued to grow, the funding process for Year 6 projects may be more competitive
- The deadline for proposal submissions (including budget sheet) is April 15

Next calls:

- QIBA fMRI Bias TF call - Tuesday, March 15 at 10am CDT
- QIBA fMRI Biomarker Committee call - Wednesday, March 23 at 11am CDT