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

In attendance

Edgar DeYoe, PhD (Co-Chair)  Edward Jackson, PhD  David Soltysik, PhD
James Reuss, PhD (Co-Chair)  Feroze Mohamed, PhD  James Voyvodic, PhD
Thomas Chenevert, PhD  Nancy Obuchowski, PhD  Yuxiang Zhou, PhD, DABR
Cathy Elsinger, PhD  Jay Pillai, MD

RSNA

Joe Koudelik
Susan Weinmann

Moderator: Dr. Reuss

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;
  o Missing content/sections
  o Discuss “testing” of this Profile
  o What is needed for moving forward with version 2.0
  o “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
  o Had 4 staff members perform subject scoring on 991 language scans in efforts to filter-out unacceptable exam scans/data
  o 200 subjects out of the original 600 meet QA criteria and will be studied further
  o Because language areas are the same, difference in paradigms can be corrected
  o 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