QIBA fMRI Biomarker Committee (BC) Call
Wednesday, September 6, 2017 at 11 AM CT
Call Summary

In attendance
Jay Pillai, MD (Co-chair)
James Reuss, PhD (Co-chair)
Cathy Elsinger, PhD

RSNA
Nancy Obuchowski, PhD
David Soltysik, PhD
Zhiyue Jerry Wang, PhD
Joe Koudelik
Susan Weinmann

Review of Previous Call Summary
- The 8.23.2017 call summary was approved as presented.

Assessment of DRO specifications and creation – update on Round-1 Project (Dr. Voyvodic)
- Ongoing interpretation of site results needed with PIs
- In the process of evaluating results from different sites, Dr. Voyvodic has discovered issues in regard to methods different sites have used to create their data
  - Nine different analyses have been performed on data from eight different sites
  - Each site was sent twenty different DRO tasks
  - Dr. Voyvodic sought to learn the extent of variability in the results of clinical activation when analyzed by different clinical sites
  - While there was similarity in regions of activation across sites, intensity of activation varied
  - Standard activation for different exams are quite different across sites
  - AMPLE normalization greatly reduced variability and makes results appear similar, both across sites and within sites
    - Dr. DeYoe’s Wisconsin data was the result of using a different algorithm
    - There is a straightforward, objective way to reduce variability using AMPLE
  - There were differences in the degree to which particular sites performed smoothing, which caused activation to spread into neighboring voxels
  - Clustering can have similar effects on activation as smoothing, but without the spread into adjacent voxels
  - Variability across smoothing and clustering methods to be compared
  - It is possible to control for the fact that different sites use different methods
  - Understanding how results vary in regard to threshold and analysis methods and their relation to normalization can be investigated if truth is known
  - Discussion needed with contributors on the interpretation of results across sites and comparison to ground truth
  - Dr. Voyvodic to recalculate the results by the end of the week
  - Data to be reanalyzed when the best method for determining truth is established
  - Results and findings will be drafted for publication
Discussion on efforts to assemble contributors to discuss results
  o Dr. Voyvodic has reached out specifically to individuals whose data had gaps and has been awaiting their responses regarding availability for a call
  o Dr. Voyvodic to re-analyze the data and poll contributors when updated results are ready to be presented
  o Drs. Soltysik, Pillai, Welker, DeYoe, Wang, et al. to be included

RSNA 2017 Annual Meeting Posters
  ● Each Biomarker Committee will have the opportunity to produce one poster
  ● RSNA staff sent out poster focus, specific guidelines, and options for printing and installation to all QIBA BC Co-Chairs
  ● To maintain topic uniformity across all posters, content should address each of the following:
    o Organizational structure updates
    o Profile development status
    o Profile impact/implications for clinical trials and patient care (new content for 2017)
    o Conformance procedure update (if applicable)
    o Groundwork project status/results

  ● After some discussion, a collective decision was made by the group that the fMRI BC would create a poster for RSNA 2017 in accordance with the above-mentioned guidelines, and mention was made of need to incorporate QIBA year 5 project results into the poster.
  ● Volunteers are needed to provide content for this poster
  ● Suggestion made to include poster development as agenda item on upcoming calls
  ● RSNA staff will print, ship, and install posters if a print-ready PowerPoint file is received by October 31, 2017

Profile 1.0 Status: Energizing review
  ● RSNA Staff sent a public comment announcement reminder to 1,000+ QIBA members, 100+ sister associations with original Sept deadline
  ● Dr. Pillai reached out to ASFNR Executive members as well as the lead author of the ASFNR white paper for additional feedback
    o Dr. Mohamed to reach out to key contacts at ISMRM and possibly OHBM
    o Suggestion to extend public comment period to mid-October to allow for ASFNR membership feedback (expected during and immediately after the ASFNR annual meeting on October 9-11)
      ▪ Plan for in-person appeal at ASFNR Oct 2017 (especially fMRI study group section)
        ● Dr. Reuss to bring attention to the need for Profile review/comment and answer questions
        ● Speakers/moderators to be asked to announce that the fMRI Profile 1.0 has been released for public comment
      ▪ After the public comment period ends and all feedback has been addressed, the fMRI BC and MR CC will vote to publish the Profile as Stage 2: Consensus, as specified on the QIBA Wiki at: http://qibawiki.rsna.org/index.php/QIBA_Profile_Stages
  ● Discussion on ways to publicize Profile once in Consensus stage; suggestion to include information on the RSNA Annual Meeting poster (QIBA Kiosk area)
Profile 2.0 Language Mapping

- Literature search is underway; searches can be annotated and articles posted at: 
  https://drive.google.com/drive/folders/0B6So9x1DSqdaZG1NbG5fHNCU3c?usp=sharing
  - To request editing privileges, contact: qiba.fMRI@gmail.com
  - fMRI BC members were encouraged to add other search strategies to the fMRI Google Drive folder and to visit the fMRI Language Profile to add comments

Next calls:

- QIBA fMRI Bias TF call – Tuesday, September 12 at 1 PM CT
- QIBA fMRI Biomarker Committee call – Wednesday, October 4 at 11am CT [Sept. 20 reallocated to Q3 MR CC call]

RSNA Staff attempt to identify and capture all committee members participating on WebEx calls. However, if multiple callers join simultaneously or call in without logging on to the WebEx, identification is not possible. Call participants are welcome to contact RSNA staff at QIBA@RSNA.org if their attendance is not reflected on the call summaries.

SAVE-THE-DATE:

QIBA Working Meeting at RSNA 2017 | Wednesday, November 29, 2:30-6 pm – Lakeside Center

RSVP at: http://tinyurl.com/2017-QIBA-Working-Meeting!