QIBA fMRI Biomarker Committee Call Summary
Wednesday, July 15, 2015 at 11 AM CT

Call Summary

In attendance
Ted DeYoe, PhD (Co-Chair)  Andrew Kalnin, MD  Jay J. Pillai, MD
Jeffrey Petrella, MD (Co-Chair)  Jedidiah (Jed) Mathis  David Soltysik, PhD
James Reuss, PhD (Co-Chair)  Feroze Mohamed, PhD  James Voyvodic, PhD
Edward Jackson, PhD  Nancy Obuchowski, PhD  Zhiyue Jerry Wang, PhD
Bradley Jabour, MD

RSNA
Joe Koudelik  Susan Weinmann

Moderator: Dr. Reuss

Review of Previous Call Summary

- The July 1 Call Summary was approved as written

NIHIB Year 5 Proposal Status

- fMRI BC project scored favorably among the other projects
- Project budget is on middle to high end
  - Drs. Voyvodic and Pillai to discuss overall budget flexibility, i.e., is a reduction in budget possible without losing deliverables or quality?
  - All PIs to make sure budgets are realistic
  - Dr. Voyvodic plans to reach-out to the Duke Contract Office to begin university preparations

- Dr. Jackson reported that the QIBA NIHIB contract proposal was submitted on July 14
  - Amount of funding requested was similar to last contract amount

Round 4 Project Status Update (Drs. DeYoe and Voyvodic)

- There is limited time left for Round- 4 projects; final reports are due to RSNA by August 31, 2015
- Dr. DeYoe’s Round-4 project continues to progress
  - The purpose of this project is to explore the effect of head-motion on Profile claims by providing motion vectors to see how well they can be counteracted
  - Dr. DeYoe will convert his noise data to NifTI format and upload them to the QIDW
  - The next agenda item is to run reproducibility metrics

- Dr. Pillai’s NVU DRO test sets were posted on the QIDW
- Dr. DeYoe uploaded complete head-motion DROs in NifTI format, including:
  - Six versions of head motions
- Noise samples
- Test-retest samples
- Simulated fMRI signals

- Drs. DeYoe and Pillai discussed NVU characterization and clarified how raw data was collected, i.e., the method used
- This project is a first step to the process; it is not intended to be able to define/classify impaired NVU so that claim will be achievable
- Dr. Voyvodic is generating DROs and improving automated analysis
  - Specifically, noise and head-motion are being analyzed
  - Performance DROs are progressing
  - Dr. Voyvodic has downloaded both head-motion and NVU data, and is analyzing noise samples for incorporation into his DRO
  - Issue is how to cope with different types of noise

Profile Development (Dr. Mohamed et al.)
- Discussion will be continued on fMRI Bias TF call on Tuesday, July 21 at 11 am CT

fMRI BC-DTI TF Joint Discussion
- DTI TF focus is on tractography applications in concussion and traumatic brain injury (TBI)
- Overlap between fMRI BC and DTI TF is limited, but there is interest in following each other’s Profile development
- The interaction between the two groups will continue and Dr. Reuss will report on further progress

Next Steps:
- Dr. Pillai to send Dr. DeYoe NVU data for NiFTI conversion and QIDW uploading
- A QIDW subdirectory structure was suggested to better organize future DRO uploads

Next calls:
- QIBA fMRI Bias TF call - Tuesday, July 21 at 10am CT
- QIBA fMRI Biomarker Committee call - Wednesday, July 29 at 11am CT