

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

In attendance

Ted DeYoe, PhD (Co-Chair)

Jeffrey Petrella, MD (Co-Chair)

James Reuss, PhD (Co-Chair)

Edward Jackson, PhD

Bradley Jabour, MD

Andrew Kalnin, MD

Jedidiah (Jed) Mathis

Feroze Mohamed, PhD

Nancy Obuchowski, PhD

Jay J. Pillai, MD

David Soltysik, PhD

James Voyvodic, PhD

Zhiyue Jerry Wang, PhD

RSNA

Joe Koudelik

Susan Weinmann

Moderator: Dr. Reuss

Review of Previous Call Summary

- The July 1 Call Summary was approved as written

NIBIB 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 NIBIB 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