

QIBA fMRI Reproducibility Work Group Update

Tuesday, April 26, 2011 at 11 AM CDT

Call Summary

In attendance

James Voyvodic, PhD, Chair

Ted DeYoe, PhD

Cathy Elsinger, PhD

Jeffrey Petrella, MD

Jay J. Pillai, MD

Laura Rigolo, MS

Daniel C. Sullivan, MD

Domenico Zaca, PhD

RSNA

Julie Lisiecki

General Discussion Items

- Round-2 proposals discussed for QIBA funding
- Suggested to Dr. Pillai: to add a line about specific aims/ what gaps will be addressed within the fMRI strategic plan; How is the project furthering the work of QIBA?
- Discuss quantitation of the map – focus on measuring NVU and use activation to quantitate
 - Need a metric to evaluate improvement
- Dr. Petrella focusing on the following:
 - Optimizing connectivity technique with GLM analysis, (General Linear Modeling) and comparing to resting state data
 - Possibly using GLM or “T” results as “gold standard” for comparison
 - Methodology parameters
 - Presenting connectivity analysis as an approach to extracting the connectivity network

Other items

- Resting state data comparison to task-based data
- Base functional connectivity analysis on resting state data or just compare (not assess accuracy of) resting state data
- Phase I - Need optimization of methodology
- Phase II – Compare to see how well optimization worked – optimize parameters
- Address gap in fMRI profile
 - Does connectivity analysis give you the same results as a standard analysis?

Next Steps

- Dr. Petrella to tweak proposal based on everyone’s suggestions
- Dr. Pillai to revise and recirculate his proposal to the group with bulleted list of deliverables (to include population and datasets)
- Dr. Elsinger to send QIBA proposed workflow and NIBIB documents for reference to Dr. Pillai as he prepares his proposal

Next calls:

- fMRI call scheduled for Wednesday, May 4th, at 11 am CDT
- fMRI Reproducibility call scheduled for Tuesday, May 10th, at 11 am CDT