QIBA fMRI Reproducibility Work Group Call

Tuesday, June 26, 2012 at 11 AM CT

Draft Call Summary

Participants

James Voyvodic, PhD (Chair)	David Soltysik, PhD	**RSNA**
Paul Carson, PhD	Daniel C. Sullivan, MD	Joe Koudelik
Barbara Croft, MD	Domenico Zaca, PhD	

PowerPoint Presentation

- Dr. Zaca continued presenting results from the QIBA/NIBIB-funded project on neurovascular uncoupling being performed at Johns Hopkins
- Project Title: "Validation of Breath Hold Task for Assessment of Cerebrovascular Responsiveness and Calibration of Language Activation Maps to Optimize Reproducibility"

Topics discussed:

- BOLD cerebrovascular reactivity (CVR) and BOLD DVR calibration algorithms were compared
- Project goal is to increase the sensitivity in the lesion vicinity by using breath hold as a normalization technique
- Breath hold maps found to indicate regions of no-signal (null regions) and help calibrate for these partial effects
- NVU non-response areas to be treated as potential false-negatives or to be used to compensate for partial uncoupling; further discussion needed
- A validation process is still needed, as well as assessment methods to identify activation
- Using breath hold and moving beyond to other calibrated aspects of response recommended
- AMPLE found not very useful with partial response activation
- Whether or not NVU functions as a binary vs. continuous variable not yet known
- CVR calibration maps compared for ROI/ BH PSC map/ and t map thr 9.5
- A method to measure cortical activation would be ideal
- Suggested was to use breath hold within the Profile as a QC tool for quantitative imaging

Next calls:

QIBA fMRI Technical Committee, ***Wednesday, August 1, 2012 at 11 am CT***

QIBA fMRI Reproducibility Working Group, ***Tuesday, July 10, 2012 at 11 am CT (?) … TBD***