

## QIBA fMRI Technical Committee Update

Wednesday, September 12, 2012 at 11 AM CT

Call Summary

### In attendance

**Cathy Elsinger, PhD (Co-Chair)**

**Ted DeYoe, PhD (Co-Chair)**

Harris Ahmad, MD

Paul L. Carson, PhD

Andrew J. Kalnin, MD

Feroze Mohamed, PhD

Jay J. Pillai, MD

James L. Reuss, PhD

Katherine Scott, PhD

James Voyvodic, PhD

### RSNA

Joe Koudelik

Julie Lisiecki

## QIBA fMRI Technical Committee Call Agenda, September 12, 2012

---

### 1. Discussion topic for upcoming reproducibility meeting (Drs. Sunder Rajan and David Soltysik)

- Their research work on reproducibility of fMRI is related and may be useful to incorporate in the Profile
- Group to discuss his paper on the next fMRI Reproducibility call, 9/18

### 2. Grant Awarded to QIBA PET/CT Technical Committee – Model for future submission?

- The National Institutes of Health/National Cancer Institute (NCI) has awarded a five-year research project grant to identify harmonized reconstruction parameters for each currently-produced PET/CT scanner for use in clinical trials. The Society of Nuclear Medicine and Molecular Imaging's (SNMMI) Clinical Trials Network (CTN) will serve as an administrative coordinating body for the Image Reconstruction Harmonization Grant, which was awarded in August to the Universities of Iowa, Pennsylvania and Washington. "Our goal with the grant is to identify a set of reconstruction parameters specific to each of the PET/CT scanner models currently in production that will result in images that will have quantitatively identical image properties." (John Sunderland)
- Larry Clarke has indicated that NCI would welcome similar applications - for cancer-related imaging biomarkers, applications could also be submitted to this PA: <http://grants.nih.gov/grants/guide/pa-files/PAR-10-169.html>

### 3. Posters for RSNA – plan for initial draft/design layout

- Who will take the lead on first pass?
- **Deadline: Hard-copy posters are due by Thursday, November 1, 2012** to RSNA Headquarters so that staff may coordinate shipment to the McCormick Place Convention Center.

### 4. Profile Development

- Pick up with section by section discussions.
- New Profile writers meeting scheduled 9/14 as follow up to meeting last week of June.

### 5. Digital Reference Object – Invite Dr. Barboriak to next call or future call?

- Database DROs might be a promising focus of the next fMRI project
- Focus would be on methodology, statistical analysis, and post-processing

---

## Discussion

### 1. Discussion topic for upcoming reproducibility meeting (Drs. Sunder Rajan and David Soltysik)

- Their research work on reproducibility of fMRI is related and may be useful to incorporate in the Profile
- Dr. Soltysik to discuss his research paper: *Standardization of Magnetic Resonance Imaging for Clinical Endpoints in Neurology*

### 2. Grant Awarded to QIBA PET/CT Technical Committee from NCI/NIH

- Much interest in how the FDG-PET Technical Committee coordinated a multi-institutional, multi-stakeholder NIH R01 grant proposal
- Suggested that the group study their submission as a model for the fMRI Tech Ctte to pursue
- Dr. Elsinger to follow up with Drs. Sunderland and Sullivan to discuss in greater detail
  - Feedback needed to model a similar approach for the fMRI Tech Ctte

### 3. QIBA fMRI Technical Committee Poster at *RSNA 2012* Update

- Drs. DeYoe, Pillai, and Voyvodic to develop content; Dr. DeYoe to prepare a draft poster layout for next meeting, 9/26.
- Hard copy of the poster will be **due to RSNA by November 1<sup>st</sup>**.
- Group to organize poster by using the results of the 3 NIBIB funded projects – in relation to reproducibility and breath hold studies.

### 4. Update on Profile Development

- Profile discussion resumed at section **2.8.1** (signal representations).
- Comparisons made to the DCE-MRI Profile demonstrate efficient use of appendices to store acquisition parameter details with less reliance on multiple parameter tables as in the fMRI document
- **Section 2.9.2:** Real time results evaluation
  - Image acquisition parameters and compliance levels discussed
- **Section 2.10:** Staff requirements for compliance
  - It was recommended to use the requirements from the CPT code.
  - CPT codes used for more complex cognitive tasks may require physician or psychologist expertise.
- Tech Ctte members were asked to be prepared to discuss their most notable Sources of Variance (SOVs) for the next call and have a list ready for reference, if needed
  - 9/26 discussion to start with *Section 3: Post Acquisition Processing*
- End of October 2012 targeted for first draft of QIBA fMRI Profile

#### Next Steps:

- Tech Ctte members were asked to be prepared to discuss their most notable SOVs for the next call and have a list ready for reference, if needed
- Dr. Mohamed will send his most recent Profile updates to the group
- Drs. DeYoe, Pillai, and Voyvodic to develop poster content for ***RSNA 2012*** – 3 sections focusing on NIBIB funded groundwork project updates Dr. DeYoe to prepare a draft of poster layout for review on the next t-con, 9/26.
- Dr. Elsinger to request Dr. Sullivan present a FDG-PET R01 grant proposal “process” update on the next group call

#### Next Meetings

- QIBA fMRI Reproducibility WG, ***Tuesday, September 18<sup>th</sup> at 11 am CT***
- QIBA fMRI Technical Committee, ***Wednesday, September 26<sup>th</sup> at 11 am CT***