

**QIBA fMRI Technical Committee Update**  
**December 7, 2010**  
**11 am CST**

Call Summary

**In attendance:**

Cathy Elsinger, PhD (Co-chair)  
Jeffrey Petrella, MD (Co-chair)  
Scott Small, MD (Co-chair)  
Edgar DeYoe, PhD

Feroze Mohamed, PhD  
Srinivasan Mukundan, Jr, MD, PhD  
Daniel Sullivan, MD  
James T. Voyvodic, PhD  
Domenico Zaca, PhD

**RSNA:**

Joe Koudelik  
Julie Lisiecki

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**Project Proposals:**

- Discussion of proposal for QIBA funding application
- Plan to submit proposal for first year
- Want to use existing data with an analysis of this data and determine proper questions to answer
  - Have several datasets that can be used
  - Challenge to find a common thread that can link these distinctly different datasets together for one cohesive project proposal
- Dr. DeYoe to write a draft with a summary statement – explaining the common thread as well as the basic proposal for the project
  - Suggest listing sub-aims/ determine questions being answered in terms of sources of variance
  - Other members of the group to comment swiftly once the draft is distributed
  - Consistent approach – methodology for analysis of datasets and assessing reproducibility for much stronger proposal
- Datasets available:
  - Dr. DeYoe – vision (with some motor)
  - Dr. Voyvodic – patients – motor + language reproducibility
  - Dr. Petrella – resting state
  - fBIRN – publicly available dataset
- Items to consider regarding datasets:
  - Number of subjects
  - Interval of time between exams
  - Paradigms involved
  - Inter-scanner sources of variance
  - Data sources; where did these come from?
  - Consider development of a protocol to examine incorporating this data

**Concepts to include:**

- Quantitative measurement complement to validity of measurement
- Do entire analysis on raw data, followed by an amplified computation
- Determination of whether there is high reproducibility after a year
  - Defined as percent change / relative change; factoring out absolute baseline
  - Location, size, and reproducibility of pattern relative to site

**Next steps for fMRI Technical Committee:**

Dr. Voyvodic to post PDF of motor task reproducibility paper on QIBA Wiki for reference  
Dr. Elsinger not available on December 15<sup>th</sup> (11 am CST) for fMRI call – Dr. Petrella to lead call

**Next Call for fMRI Reproducibility:** Tuesday, December 21, 2010, 11 am CST