

## QIBA fMRI Biomarker Committee (BC) Call

Wednesday, July 17, 2019 at 11 AM CT

### Call Summary

#### In attendance

*Feroze Mohamed, PhD (Co-chair)*

*Jay Pillai, MD (Co-chair)*

*David Soltysik, PhD (Co-chair)*

Cathy Elsinger, PhD

Erin Kelly, PhD

Flavius Raslau, MD

David Scott, PhD

James Voyvodic, PhD

#### RSNA staff

Joe Koudelik

Susan Stanfa

**Moderator:** Dr. Soltysik

#### Review of Previous Call Summary

- The 06.19.2019 call summary was approved as presented

#### New fMRI BC Members

1. David Scott, PhD is a Scientific Director at BioClinica, Inc., where he has worked for 7 years

- Has been using neuroimaging tools for almost 20 years
- Currently supports the design, acquisition and analysis of MRI and Molecular Imaging endpoints for Neuroscience drug discovery
- Enables central neuroradiologic reading, as well as quantitative analysis of MRI (including fMRI) from twenty multicenter trials worldwide
- Studies in neuroscience were conducted at Johns Hopkins and the University of Michigan employing multi-modal imaging approaches
- Hopes to contribute his experience in standardizing imaging to fMRI BC efforts

2. Dr. Erin Kelly, PhD is a Clinical Scientist at Canon Medical Systems USA, Inc. (formerly Toshiba), where she has worked for 12 years

- Supports various projects in clinical application (including one with fMRI using resting state and DTI), specifically looking at chronic pain and hearing loss
- Hopes to participate in emerging clinical trials

Dr. Elsinger provided the new members with a brief overview of the QIBA fMRI BC.

#### Profile v1.0 (motor-mapping)

- Dr. Soltysik provided updates re: changes made by Drs. Mohamed, Elsinger and himself
- The Profile and checklist have been edited and made consistent
- Redundant items and text not relevant to Profile Claim were removed
- In “actors and activities” listed in table 1 in Section 3: Profile Activities: “Scanner Operator,” was used to include either physicist or MR technologist
- Discussion regarding the source of supporting data for the fMRI Profile v1.0 Claim
  - It was suggested that the source of data may have been combination of DeYoe’s and Voyvodic’s datasets from their projects, as well as data from Dr. Pillai’s site
  - Based on a set of 30 subject test/retest dataset, Dr. Obuchowski’s statistical method is used to calculate the true confidence intervals needed to achieve the Claim
  - It was noted that the calculations to inform Claims were done ~2 years after the original fMRI groundwork studies were completed; they may not have been redone since data were updated
  - Suggestion made to reference past fMRI kiosk posters (located on the [QIBA Wiki Education page](#)) in effort to identify data source(s)

- Datasets will need to be provided on the QIDW for Profile users to access and test
- Dr. Voyvodic to submit his paper for publication once the figure is completed
  - He noted that his data has already been published, but it did not reflect Dr. Obuchowski's methodology
  - Dr. Voyvodic to forward this 2006 paper to Dr. Soltysik
- Dr. Kelly offered to review the v1.0 Profile and provide feedback
- Once sites implement the checklist to determine if conformance is doable (i.e., feasibility testing), then final changes will be made to the Profile

### **Profile v2.0 (language-mapping)**

- Suggestion to focus efforts on Profile 2.0, as there is a greater public interest and need for language-mapping
- Dr. Liu volunteered as Profile editor with the promise of support and guidance from the BC
  - Editor's responsibilities include keeping track of section updates
  - Dr. Mohamed sent Dr. Liu the latest Profile document, and he reported that Dr. Liu's work on Profile 2.0 is underway
- Dr. Mohamed to circulate papers (including Guissani (2010), Benjamin (2017) and Black (2017)) summarized by Dr. Soltysik in his PowerPoint slides
- Next call to focus on Profile v2.0, with Dr. Liu providing a progress update

**Next call:** QIBA fMRI Biomarker Cmte call – **Wednesday, August 7, 2019** at 11am CT - 1<sup>st</sup> & 3<sup>rd</sup> weeks of each month

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