

## QIBA fMRI Biomarker Committee (BC) Call

Wednesday, May 1, 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

Andrew Kalnin, MD

Chen Lin, PhD

Ho-Ling (Anthony) Liu, PhD

Nancy Obuchowski, PhD

### RSNA staff

Joe Koudelik

Julie Lisiecki

**Moderator:** Dr. Mohamed

### Review of Previous Call Summary

- The 04.17.2019 call summary was approved as presented

### Profile Work

- Dr. Soltysik mentioned that due to government FDA firewalls, he cannot access sharing sites such as Box, Dropbox, Google drive, etc. and requested wiki login information so that he may share the pre-surgical mapping literature list for review and comment
- Discussion re: the article, "Accuracy of Presurgical Functional MR Imaging for Language Mapping of Brain Tumors: A Systematic Review and Meta-Analysis" by Weng, et al. (Radiology, 2018) pertains to claims about the maps that are being generated by the group
  - The paper will be circulated for fMRI BC review; it may help to frame the claims, though supporting literature is needed for additional corroboration
  - Dr. Liu noted that most of his clinical focus deals with brain tumors, not epilepsy

### QIBA efforts regarding pharma letter

- Dr. Elsinger forwarded pharma-related contact information to Dr. Zahlmann as reference; these companies were identified as using rs-fMRI in clinical trials
- There is no detailed information regarding funding decisions
- Additional information discussed at the QIBA Steering Committee meeting in June will be shared at the BC level

### Profile Checklist

- Many sites will not be able to comply with the Profile unless tools are provided to calculate center of mass
- The group intends to focus on relevant motor data and open questions, while responding to checklist feedback
- Comments continue to be reviewed; those that are not critical will be omitted
  - The most recent edits were made in November 2018 by Dr. Elsinger
  - Remaining edits on the first Profile regarding claim language are with Dr. Voyvodic
- Data that have already been obtained from previous NIBIB-funded projects will be used to determine what the final parameters should be for variance introduced in preoperative mapping
  - There is a 2010 paper by Giussani C et al. (Neurosurgery 2010) that reviewed numerous prior studies comparing language fMRI results to those of intraoperative electrical stimulation mapping
  - fMRI standardization compared measurement concordance rates to variability
  - Concordance was rated as highly variable and reflects methodological variability across sites both with respect to language fMRI paradigms and intraoperative mapping techniques.
  - fMRI BC data might be better to evaluate this question from previous funded projects, e.g., the Round 5 projects of Drs. Pillai and Voyvodic.

- Dr. Pillai mentioned a meta-analysis paper that fMRI BC members should review
- The group will start with localization instead of lateralization based on earlier presented data and will draft some claims for discussion on the next call
  
- Profile Version 2 (language-based) is still in progress at the earliest stage
- A “retreat” would be ideal to make progress that is difficult to accomplish during these t-cons
- Moving forward, the plan is to reach consensus before the QIBA Annual Meeting in June and further discuss at the meeting

**Next calls:**

- QIBA fMRI Biomarker Cmte call – **Wednesday, June 5, 2019** at 11am CT - **1<sup>st</sup> & 3<sup>rd</sup> weeks of the month**
  - There will be no call for the fMRI BC on May 15<sup>th</sup> due to the ISMRM meeting
  
- QIBA fMRI Bias TF call – **Tuesday, May 28, 2019** at 1 PM CT - **2<sup>nd</sup> & 4<sup>th</sup> weeks of the month**

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