

QIBA fMRI Biomarker Committee (BC) Meeting

Wednesday, October 19, 2022, at 11 a.m. (CT)

Meeting Summary

In attendance

Feroze Mohamed, PhD (Co-chair)

Jay Pillai, MD (Co-chair)

David Soltysik, PhD (Co-chair)

Shruti Agarwal, PhD

Ichiro Ikuta, MD, MMSc

Nancy Obuchowski, PhD

Judd Storrs, PhD

Kiran Talekar, MD

James Voyvodic, PhD

RSNA staff

Susan Stanfa

Review of Previous Meeting Summary:

- The 10.05.2022 meeting summary was approved as presented

Topics Discussed:

- Profile updates since Oct. 5
- Appendix A: Activity Requirements (continued)

Next Steps / Action Items:

- Appendix A.9: Image Analysis updates were reviewed
 - This activity involves image processing steps and includes procedures that constitute good practice for analyzing fMRI activation but are not necessary for meeting the Profile Claim
 - Discussion text corresponding to image analysis steps in the Section 3 checklist was added
 - Subsections include Image Motion Correction, Anatomical Registration, Statistical Parametric Map Generation, ROI Identification, Activation Map Thresholding, Cluster Thresholding, Activation QC, Computing Weighted Centers of Mass of Activation (wCMA) or Peaks, Draw ROIs for Language, and Computing Weighted Laterality Index (wLI)
- **Dr. Voyvodic to provide analysis procedures and examples of Laterality Index calculations as well as calculations for locations of activations in clusters before the Nov. 2 meeting;** this would match his studies that support the reproducibility Claim
- Discussion regarding whether the Appendices should include (1) all information in Section 3 plus additional details or (2) only additional details; there were concerns about repetition and alignment
- Suggestion to reorder and reformat A9 subsections, e.g., (1) image motion correction, method, then discussion, (2) anatomical registration, method, then discussion, etc.
 - Some subsections may not need discussion, e.g., image motion correction
 - **Dr. Storrs will work on subsections (up until Cluster Thresholding) and circulate them for review**
- A.9.2 Specification checklist to be removed for redundancy
- Discussion re: clinical use of Profile
 - Challenge of clinically validating locations of activation / Center of Mass activation
 - Suggestion to develop Laterality Index (LI) Claim, as it is highly reproducible and relatively easy to clinically validate
- **Dr. Soltysik to send out the latest version of the Profile so edits can be made**
- Aim to have a completed draft by the RSNA Annual Meeting; two fMRI BC meetings remain

Next meeting: Wednesday, November 2, 2022, at 11 a.m. CT (1st & 3rd weeks of each month)

Join Zoom Meeting: <https://rsna-org.zoom.us/j/87552084926?pwd=eU9MWGV6a3JWRHlkZ0wzdEZsK3JoQT09>

Meeting ID: 875 5208 4926

Passcode: fMRI