QIBA fMRI Biomarker Committee (BC) Call
Wednesday, August 18, 2021, at 11 a.m. (CT)
Call Summary

In attendance			**RSNA staff**
Feroze Mohamed, PhD (Co-chair)	Ping Hou, PhD	Nancy Obuchowski, PhD	Joe Koudelik
Jay Pillai, MD (Co-chair)	Erin Kelly, PhD	Judd Storrs, PhD	Susan Stanfa
David Soltysik, PhD (Co-chair)	Anthony Liu, PhD	James Voyvodic, PhD	
Shruti Agarwal, PhD			

Review of Previous Call Summary

- The 08.04.2021 call summary was approved as presented

fMRI Language-Mapping Profile v2.0 Profile

- fMRI Co-chairs/Profile editor met with Process Committee Leaders, Mr. O'Donnell (Chair) and Dr. Boss (Vice chair) on July 30th to discuss Profile streamlining efforts
  - Drs. Liu, Mohamed, Pillai, and Soltysik have decided to adopt this new Profile structure and Dr. Liu volunteered to convert the fMRI v2.0 Profile framework to this updated format

- Consensus is needed on the following parameters that may result in image distortion, found in the Section 3.7.2 Image QA Assurance specification table:
  - Registration of anatomicals and EPIs
  - Distortion of EPI
  - Susceptibility, magnetic field inhomogeneities
  - Head motion
  - Neurovascular uncoupling (NVU)
  - BOLD signal

- There was a discussion re: which NVU assessment details to include, and mentioning it as an important data qualification issue that pertains only to cases of focal structural brain lesions was suggested
- A t-value of half max of four (based on a peak t-value threshold of 8) was deemed the best predictor of image quality
  - To achieve the target level of reproducibility and meet the Claims, a critical QC factor is defining what constitutes a "good scan"
  - The quality of a scan is based on the amount of activation overlap, with greater overlap and strong activation of BOLD signal signifying a "good" scan; criteria details to be included in the Profile
  - Initially omitting unreliable data that does not meet criteria is a better practice than performing motion-correction afterward; the procedure for acquiring a good scan will be included in the Profile
  - Previous work has shown that there is no good motion threshold for separating good and bad data

- Profile-writing tasks will be assigned when the new Profile template is ready; Drs. Elsinger and Mohamed had volunteered for assignments and fMRI BC Co-chairs will discuss this further offline

Next call: Wednesday, September 1, 2021, at 11 a.m. CT (1st & 3rd weeks of each month)