

QIBA fMRI Biomarker Committee (BC) Meeting

Wednesday, August 17, 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

Andrew Kalnin, MD

Ho-Ling (Anthony) Liu, PhD

Nancy Obuchowski, PhD

James Voyvodic, PhD

Francisco Zamorano, PhD

RSNA staff

Susan Stanfa

Review of Previous Meeting Summary

- The 8.03.2022 meeting summary was approved as presented

Topics Discussed:

- Computing Weighted Center of Mass of Activation (wCMA) or Peaks parameter in Section 3.9 Image Analyst Checklist
- Defining activation clusters (comparing the methods of Dr. Voyvodic, AFNI, and FSL)

Next Steps / Action Items:

Computing Weighted Center of Mass of Activation (wCMA) or Peaks includes two options:

- Option 1: Calculate the wCMA for clusters within the language region of interest (if more than one voxel)
- Option 2: Identify the peaks of the activation clusters within the selected language region of interest
- How to define clusters, i.e., activation blobs within defined regions of interest needs further consideration/discussion
- There are many different parameters to define clusters and Dr. Voyvodic reviewed the criteria used in his reproducibility study
 - Every cluster must be statistically significant (in this case, defined as voxels with t-values greater than four)
 - Every cluster must be separated from neighboring peaks by a valley that is at least 70% of the peak value of the lower peak and must have greater than five voxels
- Rather than making requirements specific to a single software, or writing separate sets of protocol to address differences among software that impact reproducibility, it was suggested that vendors modify their algorithms
- September 1 was set as the target date for completing a draft of the Profile (v2) for BC internal review

Next meeting: Wednesday, August 17, 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

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