# QIBA fMRI Biomarker Committee (BC) Call

Wednesday, September 19, 2018 at 11 AM CT Call Summary

In attendance			RSNA staff
Feroze Mohamed, PhD (Co-chair)	Cathy Elsinger, PhD	Andrew Kalnin, MD	Joe Koudelik
Jay J. Pillai, MD (Co-chair)	Ping Hou, PhD	Jim Voyvodic, PhD	Susan Stanfa
David Soltysik, PhD (Co-chair)			

## **Review of Previous Call Summary**

• The 09.05.18 call summary was approved as presented

#### **Coregistration Issue (continued)**

- The following, selected concepts from "A New Method for Improving Functional-to-Structural MRI Alignment Using Local Pearson Correlation" paper were discussed
  - o Authors' efforts at improving EPI-structural alignment using the signed Pearson correlation
  - o In the absence of an alignment gold standard, three observers blinded to registration method were used to provide an independent assessment of the quality of the registration for each cost functional
  - Using simulated data, where the proper alignment is known, does not fully take into account the complex variations in noise, contrast, signal dropouts, and image distortion that occur in practice
- Recommendation to include discussion of methods to evaluate registration (as opposed to proposing a specific method) in Profile 1.0
- Suggestion to offer "ideal" and "acceptable" visual evaluation options for Profile 1.0

#### Checklist

- Original distribution of the check list to core fMRI BC members occurred in mid-July
  - "Core fMRI BC membership" is defined as participants of one or more t-cons over the previous 6 months
  - The October 15 deadline allows at least 3 months for feedback from core fMRI BC members
- A reminder to complete the checklist was sent on September 5, with a note that the September 19 fMRI BC call
  would be dedicated to clarifying questions and issues that reviewers may have had related to completing the
  check list
  - Due to the scarcity of feedback, this topic will be postponed until the Oct 3 call
  - o RSNA staff to send another checklist reminder prior to the call
  - Additional reminder to be sent one week prior to the Oct 15 deadline
- Feedback from core fMRI BC members may result in modifications of the checklist prior to distribution to a broader audience
- Based on checklist feedback, fMRI BC leaders to re-evaluate whether to continue efforts on Profile 1.0 (and/or planning calls around 1.0 Motor-Mapping)

### Poster for QIBA Kiosk at RSNA Annual Meeting

- Drs. Soltysik's and Voyvodic's DRO project data to be incorporated
- Update on motor-mapping Profile 1.0 progress to be added
- Print-ready posters are due to RSNA Staff by October 31
- Dr. Elsinger will attend the November RSNA Annual Meeting; Dr. Pillai may attend and Drs. Soltysik and Voyvodic will not attend

### Update on Profiles 1.0 and 2.0

- Profile 2.0 (language focus) is in Claims construction stage
- After Profile 1.0 checklist is finished, attention will be turned to Profile 2.0
- Dr. Elsinger to continue addressing Profile 1.0 public comments and identify any feedback that requires committee attention
  - Laterality and spatial extent to be reincorporated
  - Suggestion to schedule an ad hoc call to focus on issues identified by reviewers during the public comment stage (e.g., coregistration)

## **Announcements/Next Steps**

• Final results of Dr. Soltysik's DRO head motion study will be discussed during the September 24 fMRI Bias TF call

# RSVP to the QIBA Working Meeting at RSNA 2018 | Wednesday, November 28, 2 - 6pm - Lakeside Center



#### **Next calls:**

- QIBA fMRI Bias TF call Tuesday, September 25, 2018 at 1 PM CT
- QIBA fMRI Biomarker Committee call Wednesday, October 3, 2018 at 11am CT

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