QIBA PET Amyloid Biomarker Committee

15 January 2016 at 9 AM CT Call Summary

In attendance: Participants: RSNA

Co-chairs:Ronald Boellaard, PhDSara Sheikbahaei, PhDJoe KoudelikEric Perlman, MDJohn Hoffman, MDRathan Subramaniam, MD, PhD, MPHJulie Lisiecki

Anne Smith, PhD Paul Kinahan, PhD John Sunderland, PhD

Adriaan Lammertsma, PhD Huseyin Toré, MD

Annette Schmid, PhD Jean-Luc Vanderheyden, PhD

Phantom / DRO Update

- The U Washington team is mining brain image data using NeuroQuant software from CorTechsLab to analyze approximately 300 image sets
 - o http://www.cortechslabs.com/neuroquant
 - o The software stores images and provides analysis and works well with high resolution MR
- The team's goal is to delineate grey matter, white matter and CSF, though this has not been fully accomplished
 - Only certain structures have been delineated; multiple brain segmentation tools were used, including the
 3-D Slicer
- Dr. Sunderland has devised corrective target concentration ratios that may help overcome some segmentation challenges
 - o Remaining technical details are being worked out by the team
 - o Two physical phantoms and DRO will share identical segmented datasets
 - Goal is to get contrast to be nearly identical between the physical phantoms and DRO, though the best method is yet to be determined
 - o Medical data is needed to help guide the team toward a nuanced target for ultimate usefulness
 - o Scientific rigor and clinical application are both required for an effective claim

Upcoming NM Call Schedule / Topics

- Drs. Kinahan and Sunderland to further explain the amyloid DRO and physical phantom respectively, and outline how these may be used in conjunction with the Profile to measure "conformance"
- Logistics for Profile feasibility testing and a review process need to be discussed
- Consider joint meeting with interested MR QIBA members to understand use of MR Volumetry in AD.

Nuclear Medicine BC Calls:

Feb 05: FDG-PET BCFeb 12: Amyloid BCFeb 19: SPECT BC

Feb 26: Combined NM BCs - TBD

SPECT Task Forces: (Tuesdays at 2 pm CT) – pending availability of co-chairs

• Feb 02: Image Acquisition and Image Processing for DaTscan – Dr. Dewaraja

Feb 09: Quantitative / Image Analysis – Drs. Miyaoka and Seibyl
 Feb 16: Phantoms / DRO Group – Drs. Dickson and Zimmerman

• Feb 23: Clinical / Literature Review – Dr. Seibyl
