

QIBA PET-Amyloid Biomarker Committee

Friday, March 12, 2021 at 9 AM CT

Call Summary

In attendance:

Dawn Matthews, MS (Co-chair)

Satoshi Minoshima, MD, PhD (Co-chair)

Anne Smith, PhD (Co-chair)

Tammie Benzinger, MD, PhD

Norman Foster, MD

Adriaan Lammertsma, PhD

Nancy Obuchowski, PhD

Lindsay Quant, MS, MBA

Richard Wahl, MD, FACR

Guhrun Zahlmann, PhD

RSNA

Joe Koudelik

Julie Lisiecki

Moderator: Dr. Smith

DRO updates

- The BC is seeking permission from the University of Washington to use the original MRI patient scan that formed the PET-DRO
- An artificial MRI for image registration may need to be created from the data if permission cannot be granted, as this detail would be helpful for DRO users; Dr. Smith to follow up with Dr. Kinahan
- More evaluation is needed from different software packages for DRO testing prior to official release
 - Dr. Smith will ask Dr. Wollenweber to recommend a colleague from GE to test
 - Dr. Aaron Nelson (MIMVista) volunteered to evaluate the DRO
 - Ms. Matthews will test the DRO (ADMdx)
 - Philips and United Imaging representatives would be nice to include
 - Ms. Quandt (CereHealth Corp) volunteered to test the DRO
 - Ms. Quandt suggested [CorTechs Labs](#) to test their NeuroQuant software, which does MRI segmentation; she offered to reach out to colleagues
- Dr. Smith said that Dr. Fahmi's testing with Siemens software had good linearity
 - The grey cortex was increased to simulate amyloid burden
 - The ration of grey cortex was approximately 1.7; It is important to know the slope, as if linear, the software is considered conformant
- Dr. Minoshima mentioned anatomical differences, which are a major source of measurement variation and may create errors with software
 - A disclaimer may be needed in the Profile stating that different analysis software packages may not function well (assess conformance) if they do not work well with the Amyloid DRO
- BC members are asked to reach out to colleagues who may be interested in testing the DRO

Hosting the DRO

- Dr. Smith to discuss the possibility of using the QIDW with RSNA staff offline
- Dr. Pierce offered to host the DRO at U-Washington though Drs. Zahlmann and Minoshima agreed that RSNA/QIBA should host to avoid any perceived bias, though the DRO could also be hosted in both places

Technical Confirmation Process

- Mr. O'Donnell has suggested some updates to the format for the site feasibility questionnaire
- The co-chairs to meet offline to discuss these suggestions
- Practicality is important as the co-chairs would prefer to avoid significant delays

Publishing the PET Amyloid Profile

- The BC is collaboratively drafting a paper for peer-reviewed publication to promote QIBA and the Profile
- Details on barriers to Profile implementation are needed; Dr. Lammertsma to add European differences
- It was suggested that the BC leaders also consider contacting colleagues in Australia and Japan for feedback
- Dr. Lammertsma suggested two Australian colleagues – [Christopher Rowe, MD](#), and [Victor Villemagne, MD](#)
- Dr. Minoshima will reach out to Japanese colleagues next month
- Dr. Smith will reach out to Chinese contacts at United Imaging
- Recommendations for contacts in South Korea would be helpful
- Dr. Lammertsma also suggested contacting [Simon Cherry, PhD](#)
- Acknowledgements are being written now; staff to provide NIBIB funding support standard text to Dr. Smith

Next meeting topics:

- Review the PET Amyloid Profile-related manuscript
- Finalize any DRO questions
- Set the stage for a Tau Profile

Action items

- Dr. Smith or Ms. Matthews to add a Profile note indicating that data are simulated to ensure that no questions are raised pertaining to HIPAA regulations
- Dr. Smith to follow-up with Dr. Kinahan re a T1-weighted MRI for the DRO
- Dr. Minoshima to ask Japanese colleagues to read manuscript and point out any Japanese differences
- Dr. Lammertsma to add European differences and contact Australian colleagues
- Dr. Smith to contact United Imaging colleagues to evaluate DRO
- Dr. Smith to discuss with QIBA staff about using QIDW to host the DRO
- Ms. Matthews to reformat the Profile checklist from Excel to Word for ease of use
- Co-chairs to finalize feasibility questionnaire and discuss Mr. O'Donnell's suggestions
- Joe to provide NIBIB acknowledgement text

Next call – [April 9th](#) at 9 am CT