QIBA PET-Amyloid Biomarker Committee Friday, April 9, 2021 at 9 AM CT

Call Summary

In attendance: RSNA

Dawn Matthews, MS, MBA (Co-chair)Adriaan Lammertsma, PhDJoe KoudelikAnne Smith, PhD (Co-chair)Nancy Obuchowski, PhDJulie LisieckiRachid Fahmi, MSc, PhDJean-Luc Vanderheyden, PhD

Clara Ferreira

Moderator: Dr. Smith

Feasibility Questionnaire for Profile Technical Confirmation (Stage 3)

- Ms. Matthews has sent the questionnaire to Drs. Sunderland, Benzinger, and Minoshima for review/feedback
- Ms. Matthews will also send the questionnaire to Drs. Boellaard and Lammertsma to identify reviewers of both the Profile and checklist for international inconsistencies

DRO updates

- The BC is seeking permission from the University of Washington to use the original MRI patient scan that formed the PET-DRO
 - This T¹ image is needed for certain software packages to analyze data properly
 - 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
- A disclaimer is needed to clearly show that the MRI data are not real to prevent any HIPAA concerns
- Dr. Berger from PMOD provided some suggestions to add DICOM tags to better describe DRO noise realizations and provided feedback on the equation, which Dr. Smith will share with Dr. Obuchowski
- More evaluation of different software packages is needed of DRO testing prior to official release
 - o Dr. Smith to follow up with Drs. Wollenweber (GE) and Nelson (MIMVista) re: their DRO test progress
 - Ms. Matthews will test the DRO (ADMdx)
 - o Dr. Vanderheyden volunteered to invite United Imaging to test the DRO
 - o Dr. Lammertsma volunteered to contact colleagues at the Universities of Edinburgh and Amsterdam to test the DRO using an open-source software solution (NIfTI-PET), utilizing Python script
- PMOD provided helpful DRO feedback, which Dr. Smith will share with Dr. Obuchowski; however, they cannot fully test the DRO without the T¹ MRI registration image

Hosting the DRO

• It was decided that the QIDW will be used to host the DRO to prevent version syncing issues in the future and a link will be provided in the updated Profile

Publishing the PET Amyloid Profile

- The BC is drafting a collaborative paper for peer-reviewed publication to promote QIBA and the Profile
- Details on barriers to Profile implementation are needed
 - o Dr. Lammertsma to add European differences
 - o Dr. Smith invited Dr. Mozley to draft text detail based on his QIBA experiences
- It would be advantageous to include comments from Japan and China, but contacts must be established first
 - Dr. Smith will include Dr. Vanderheyden on an email regarding manuscript details to share with United Imaging colleagues

Journals under consideration

- After some discussion it was agreed that <u>Alzheimer's and Dementia</u> would be the top journal to target due to its impact factor of 17; this was deemed to best reach the target audience
 - BC members will peruse journal articles to see what types of manuscripts they target and if the PET-Amyloid BC manuscript would be suitable
- Other journals for consideration:
 - o *Radiology* (impact factor: 7.9)
 - o Alzheimer's Research and Therapy (impact factor: 5)

Human Amyloid Imaging (HAI) Conference abstracts

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. Vanderheyden to contact United Imaging colleagues to evaluate DRO and inquire about manuscript
- Dr. Lammertsma to add European differences and contact Australian colleagues: <u>Christopher Rowe, MD</u>, and <u>Victor Villemagne, MD</u>
- Dr. Lammertsma to contact Simon Cherry, PhD
- Dr. Minoshima to ask Japanese colleagues to read manuscript and point out any Japanese differences
- 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

Next call – May 14th at 9 am CT