QIBA PET Amyloid Biomarker Committee

08 July 2016 at 9:00 AM CT (GMT-6)

Call Summary

In attendance: RSNA

Eric Perlman, MD (Co-Chair) Paul Kinahan, PhD Rathan Subramaniam, MD, PhD, MPH Julie Lisiecki

Satoshi Minoshima, MD, PhD (Co-Chair) Dawn Matthews, MS, MBA Na Sun, PhD

Anne Smith, PhD (Co-Chair) Nancy Obuchowski, PhD John Sunderland, PhD

John Hoffman, MD Sara Sheikhbahaei, PhD Jean-Luc Vanderheyden, PhD

QIBA Round-6 Project Proposals

Four PET Amyloid Projects were submitted for Round 6 funding

- As a whole, Nuclear Medicine submitted 10 out of 22 proposed projects total
 - Projects will be scored after the Steering Committee meets on July 21st
 - PIs will be notified within two weeks after the Steering Committee regarding the final selections

Meta-Analysis Paper

- Dr. Subramaniam plans to circulate his draft meta-analysis paper to the BC for feedback and edits approximately 5 weeks from now
- Dr. Subramaniam raised the possibility of leveraging the IDEAS project by including an additional repeatability study on 30 40 patients. Challenges as discussed by the members would include:
 - o IDEAS has a mixture of patients without illness as well as patients with MCI and Alzheimer's Disease
 - o A revised IRB would be needed which could practically be a show stopper
 - Timing would be critical to the study; similar to ACRIN 6678, scans would need to be completed in one week

Update on NCI - NIBIB Meeting with QIBA on June 1st

- An important directive that came from this meeting was that the QIBA Profiles must move forward to the technically confirmed stage so that potential users may begin implementation of the Profiles
- A goal for the PET Amyloid BC is to get a Profile out for Public Comment prior to RSNA 2016
- In addition, QIBA leadership is very interested in a mechanism for QIBA to become self-sustaining in the future, though no specific plans have yet been identified

RSNA 2016

- It is not too early to begin thinking of ideas for the QIBA posters for the QIBA Kiosk at RSNA 2016
- While a specific focus has not yet been determined, volunteers will be needed to compile the poster

QIBA NM Dashboard for PET-Amyloid

- The group is lagging behind somewhat in terms of goals for the Profile
- A Profile Review multi-hour call is under consideration to complete Profile gaps

Phantoms

- Dr. Klein to follow up with Data Spectrum regarding a 90 slice Hoffman phantom for conformance testing
- Dr. Kinahan is in the process of developing a new brain phantom, which may not be ready for Profile testing
- However, Dr. Kinahan can provide immediate access to UW QIBA DROs for conformance testing

Image Analysis Workstation Conformance

Ms. Matthews suggested that for ease of testing, ONE DRO should be used to test workstation conformance

- Not all other proposed forms of testing are publicly or readily available
- Dr. Sunderland discussed how the Hoffman phantom may be somewhat confounding for conformance testing
 - o It has 250 slices that are not interpolated, but rather are thin, replicate slices
 - The slices are interspersed with grey matter slice and spacer slices to simulate white matter for partial volume averaging, which is not standard
 - o Dr. Sunderland also recommends using Dr. Kinahan's DRO for conformance testing
- Some additional suggestions for conformance testing included:
 - Creating 10 abnormal and 10 normal cases for testing
 - Possibly using a single morphology with different noise measurements in digital form
 - One morphology may not be enough for testing

Profile Review WebEx

- RSNA staff will distribute doodle poll details for a proposed multi-hour review on Friday, July 22nd, and an additional one-hour time-slot on Tuesday, July 26th
- Once the results of the doodle poll are available, Dr. Perlman will divide groups by topic and expertise and provide a schedule to participants to maximize available time for the call

Nuclear Medicine WebEx Schedule

Committees (Fridays, 9 am CT):

- July 15: SPECT BC
- July 22: (doodle poll out for possible multi-hour Profile review)

SPECT Task Forces: (Tuesdays, 2 pm CT)

- July 19: Phantoms / DRO Group Drs. Dickson and Zimmerman
- July 26: time slot for possible NM Amyloid Profile review