

QIBA PET Amyloid Biomarker Committee

12 August 2016 at 9:00 AM CT (GMT-6)

Call Summary Notes Provided by Dr. Anne Smith

In attendance:

Anne Smith, PhD (Co-Chair)

Satoshi Minoshima, MD, PhD (Co-Chair)

Eric Perlman, MD (Co-Chair)

Alexander Drzezga, PhD

Adriaan Lammertsma, PhD

Dawn Matthews, MS, MBA

Nancy Obuchowski, PhD

Sara Sheikbahaei, PhD

Rathan Subramaniam, MD, PhD, MPH

Na Sun, PhD

John Sunderland, PhD

Jean-Luc Vanderheyden, PhD

RSNA

Joe Koudelik

Julie Lisiecki

Discussion of the following topics:

- QIBA Round 6 projects that received funding
- Image Analysis Workstation Conformance – Draft Protocol
- Next Steps / Closing Remarks

QIBA Round-6 Project Proposals

- Two of four PET Amyloid Projects submitted for Round 6 funding *have been approved*:
 1. Matched Digital and Physical Amyloid Phantom for Software and Scanner Validation: Digital Component, Dr. Kinahan
 2. Quantification of Reconstruction Method Impact on Measured Amyloid Load, Ms. Matthews
- Four additional Nuclear Medicine projects were approved.
 1. **FDG-PET**: SUV Quantification with Point Spread Function PET Reconstruction, Drs. Martin Lodge and Ronald Boellaard
 2. **FDG-PET**: Simple Variability Estimates in PET, Dr. Turkington
 3. **SPECT**: Multi-Center Phantom Study to Characterize Bias and Precision of Quantitative ¹²³I SPECT, Drs. Dewaraja and Dickson
 4. **SPECT**: I-123 DAT Scan Digital Reference Object Development, Dr. Miyaoka
- To see a complete list of approved projects, visit the Steering Committee page on the QIBA [wiki](#)

Next Steps for Image Analysis Workstation (IAW) Conformance Section in Profile:

- Have current version of DRO read by radiologist (Dr. Subramaniam?)
- Make requested changes to DRO based on radiologist feedback
- Hold task group meeting and write up IAW Conformance section, based on limited knowledge and knowing it will be changed later
 - Constrain what DRO tests in optimal way
 - Single Gaussian filter value for smoothing? (Currently set at 6 mm FWHM)
 - Only one patient morphology will be tested (no time to segment another MRI volume)?
 - Decide if anatomical regions will be specified
 - Decide if region boundaries will be specified
 - Decide if test needs to report an overlay of the target and reference regions on the DRO
 - Should MRI be provided with DRO series?
 - Should multiple realizations include simulation of patient movement?
- Develop limited initial series of DROs and test on IAWs
- Based on feedback, updated DRO series and Profile IAW Conformance Section of Profile

Additional documents (posted to wiki):

1. [QIBA PET Amyloid IAW Conformance – PPT slides from August 12, 2016 WebEx](#)
2. [2015-PET-Amyloid DRO Report – Drs. Pierce, Haynor, Sunderland, and Kinahan {Part I}](#)
3. [2015-PET-Amyloid DRO Report – Drs. Pierce, Haynor, Sunderland, and Kinahan {Part II}](#)
4. [Conformance Formulae](#) {Please navigate to the Word document}
5. [QIBA Conformance Draft](#) {Please navigate to the Word document}

August & September Nuclear Medicine WebEx Schedule

Committees (Fridays, 9 am CT):**Aug 19:** SPECT BC**Aug 26:** Combined NM BCs *or* Leadership - **TBD****Sept 02:** FDG-PET BC**Sept 09:** Amyloid BC**Sept 16:** SPECT BC**Sept 23:** Combined NM BCs *or* Leadership - **TBD****SPECT Task Forces: (Tuesdays, 2 pm CT)****Aug 16:** Phantoms / DRO Group – *Drs. Dickson and Zimmerman***Aug 23:** Clinical / Literature Review – *Dr. Seibyl***Sept 06:** Image Acquisition / Processing for DaTscan – *Dr. Dewaraja***Sept 13:** Quantitative / Image Analysis – *Drs. Miyaoka and Seibyl***Sept 20:** Phantoms / DRO Group – *Drs. Dickson and Zimmerman***Sept 27:** Clinical / Literature Review – *Dr. Seibyl*
