QIBA PET Amyloid Biomarker Committee (BC) Call
14 July 2017 at 9:00 AM CT
Call Summary

In attendance:

<table>
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<tr>
<th>Name</th>
<th>Position</th>
<th>Institution</th>
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<tr>
<td>Anne Smith, PhD</td>
<td>(Co-Chair)</td>
<td>RSNA</td>
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<td>William (Bill) Bridge</td>
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<td>Eric Perlman, MD</td>
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<td>Joe Koudelik</td>
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<td>Satoshi Minoshima, MD, PhD (Co-Chair)</td>
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<td>RSNA</td>
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<td>Anurag Gupta, PhD</td>
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<td>Rathan Subramaniam, MD, PhD, MPH</td>
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<td>Julie Lisiecki</td>
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<td>Ronald Boellaard, PhD</td>
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<td>Edward Jackson, PhD</td>
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<td>John Sunderland, PhD</td>
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<td>Nancy Obuchowski, PhD</td>
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<td>Richard Wahl, MD, FACR</td>
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Moderator: Dr. Smith

Profile Public Comment Update:

- The Profile was released on June 1st for public comment; four comments have been received to-date
- Committee members intend to follow up personally with colleagues in order to solicit targeted feedback
- Volunteer contacts for sister organizations are as follows:
  - Alzheimer's Association (Dr. Minoshima)
  - ADNI (Dr. Minoshima)
  - GAAIN (Dr. Minoshima)
  - FNIH (Dr. Wahl)
  - NIA (Drs. Wahl and Minoshima to contact Peter H. and others)
  - AFAR (Dr. Vanderheyden)
  - European and Japanese Initiatives (Dr. Boellaard)
  - Human Amyloid Imaging Group (Dr. Subramaniam)
  - SNMMI Brain Council (TBD)
  - Keith Johnson (to be contacted by Dr. Gupta, with some text provided by Dr. Smith)
- A strategy to triage and address comments is under development; co-chairs will review comment resolution spreadsheets from FDG-PET, SPECT, and MR Profiles
- Dr. Jackson to forward the CT Volumetry template to Dr. Smith for reference
- Google docs were also mentioned as a tool useful for reviewing comments by 2-3 core team members

Next Steps for the Current Profile:

- Finish the DRO, which is important to move the Profile forward
  - Volunteers needed to drive this effort and perform the feasibility test
- Reference region / segmentation project:
  - Once the DRO is stable, the group must determine what is needed for imaging analysis work station conformance
  - Image analysis vendors to be involved including the following known vendors and others, TBD:
    - GE
    - Hermes
    - MIMNeuro
    - Mirada
    - Philips
    - Siemens
    - PMOD
  - A standard set of patient data will be used to test the variability of different analysis packages
  - Reports will be generated on the variability of region statistics and SUVRs
  - Data are needed from 3 different PET amyloid tracers
  - Assistance will be requested from: Drs. Obuchowski and Koepp and Ms. Matthews
  - The following labs will be asked to help with standard datasets and advise on the project protocol:
Bill Jagust at UC Berkeley
Cliff Jack at Mayo Clinic
Reesa Sperling at Brigham and Women’s

- QIDW and its role in Profile development and conformance assessment will be considered, including:
  - Specific improvements that would increase its impact for BC efforts
  - Storing the DRO for Image Analysis Workstation (IAW) image analysis performance assessment

- Dr. Wahl also mentioned that the multi-reader study was just published in the *Journal of Nuclear Medicine* with Dr. Joon Hyun O as the lead author
  - The goal of this study was to understand the variability of software analysis packages

**Groundwork Projects:**

**Funded**
- Ms. Matthews has a project on the effect of reconstruction on SUVRs
  - A poster will be produced for IEEE MIC 2017
- Dr. Kinahan has a DRO project
- Dr. Lodge is working on the effects of Point Spread Function (PSF) in conjunction with the FDG-PET BC

**Unfunded**
- Dr. Boellaard is exploring the effect of uptake time on different tracers (looking for funding mechanisms)
- Dr. Lammertsma is exploring the coffee break protocol with 2 amyloid agents; work to be done this summer

**Future biomarker ideas:**
- Tau agents were suggested as a future addition to the Profile
  - However, tau study is a very fluid field and not mature enough yet for a full Profile
  - Test-retest studies would be needed
  - It was suggested to wait until it is clear that there are agents that will be approved

**Next Profile Version for PET Brain:**
- Update PET Amyloid Profile to include PET / MR
- FDG: Make it more specific and useful for dementia imaging

**Action Items:**
- Dr. Jackson to forward a template to Dr. Smith
- Dr. Gupta to reach out to Dr. Sperling and Dr. Johnson

**NM WebEx Schedule:**

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<td>7/21</td>
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<td>7/28</td>
<td>NM Leadership <em>(TBD)</em></td>
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<td>8/18</td>
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