

QIBA PET Tau Biomarker Committee (BC)

Friday, March 10, 2023, at 9 am CT

Call Summary

Additional detailed notes provided by Ms. Matthews

In attendance

Tammie Benzinger, MD, PhD (co-chair)

Dawn Matthews, MS, MBA (co-chair)

Tobey James Betthausen, PhD, MS

Santi Bullich, PhD

Charlie Chen, PhD candidate

Rachid Fahmi, MSc, PhD

Clara Ferreira

Michael Haas, BSc

Gregory Klein, PhD

Adriaan Lammertsma, PhD

Antoine Leuzy, PhD

Richard Margolin, MD

Satoshi Minoshima, MD, PhD

Nancy Obuchowski, PhD

Sandra Sanabria Bohorquez, PhD

Jean-Luc Vanderheyden, PhD

Dean F. Wong MD, PhD

Gudrun Zahlmann, PhD

RSNA Staff

Joe Koudelik

Julie Lisiecki

Process

- Reference literature has been organized in DropBox by tracer
- A volunteer(s) will take the lead for each tracer in rounding out literature gathering (see below)
- Tracer lead will identify which of four categories (acquisition, test-retest, measurement, off-target binding) each literature piece addresses
- Lead and additional volunteers will review papers to distill key parameters into common format spreadsheet provided on-line in DropBox for collaborative editing; one spreadsheet per tracer; certain attributes can be completed as a first round before determining which ones merit detailed capture
- Dr. Obuchowski will provide deeper analyses of test-retest methods and findings
- The wCV information could provide basis for technical claim; additional use cases can be derived by knowing baseline mean and standard deviation as well as mean and standard deviation of change over time, and scanner bias for absolute claims
- It was noted that the group would need to assess how much variability is in the literature findings and which ones are aligned with methods agreed upon by the group; other data from gap studies or other sources may also contribute to claims
- Parallel coordination with CPAD effort (harmonization), for example, potentially adopting Centaur as base measurement method and expanding to other pipelines

Tracer literature leads

- APN-1607: Dr. Margolin
- AV-1451/Tauvid: tbd (M. Pontecorvo to be contacted; Dr. Benzinger/C. Chen/Dr. Leuzy support if needed)
- GTP-1: Dr. Sanabria
- MK-6240: Dr. Betthausen
- PI-2620: Dr. Bullich
- RO-948: Dr. Wong, Dr. Leuzy

Input on spreadsheet for recording key literature findings:

- Since off target binding may have a temporal relationship (dynamic nature), Dr. Wong recommended adding a field for the temporal sequence, and when the off-target binding was noted/most prominent
- Suggested to change current layout by reversing row and column formatting so that variables are in columns and independent observations will be tracked in rows
- Dr. Obuchowski recommended capturing the original measurands (e.g., reproducibility coefficient and/or within subject standard deviation as available) as well as wCV if reported; do not need to calculate wCV (she will)
- If possible, freezing the first left 2 columns would be helpful, and color coding for different tracers
- Should note whether any scans were excluded from the analyses (e.g., scans with off-target binding), and how many were excluded
- Add columns for **who** made the initial comments/entries with columns for additional reviewers who may provide edits or additional information

- Within pipeline section, perhaps create detail columns to promote consistency in reporting
- Can blend additional variables that Dr. Betthausen thought of/included with this spreadsheet

Next Steps

- Dr. Chen will modify/merge the tracer spreadsheet(s) and send to each of the Task Force Chairs
 - After about a week to allow for feedback, the spreadsheet(s) will be shared to Dropbox
 - If there are obvious gaps, they will be addressed
- By the next meeting, the group hopes to have identified key papers and where they fit into the categories on the spreadsheet: test/retest acquisition, measurement, and off-target binding
- Additional volunteers would help to make the work proceed quickly, and the expertise of all BC members is helpful and appreciated

Next meeting – Agenda items

- Drs. Klein and Leuzy will present a brief update / highlights from the International Conference on Alzheimer's and Parkinson's Diseases and Related Neurological Disorders, [AD/PD™ 2023](#)
- Dr. Klein will present some updates on work with Critical Path for Alzheimer's Disease (CPAD)

Priority Task Forces: (Member list is has been posted here: [link to Google doc](#))

1. **Acquisition:** Adapt acquisition recommendations to tau
2. **Claim:** Test-retest and longitudinal literature or de novo analyses
3. **(deferred for 1 and 2) Measurement/analysis:** methods to address meningeal uptake AND other off-target binding

Prior and ongoing action items in process:

- Re: data sources, labels, acquisition protocols:
 - Dr. Iaccarino will report back findings from CPAD and will check with Avid about flortaucipir
 - Dr. Margolin will contribute to APN1607 related aim
- **Link to [task force sign-up sheet](#)** (3 Task Forces – form #2)
- **Ms. Matthews** to follow up with tracer manufacturers and others re: test-retest data that may be available
- **Dr. Wong** to send a paper to Ms. Matthews for inclusion on the Dropbox

Next Call: Friday, April 14th at 9 am CT {whole group}

Parties interested in joining the [QIBA LinkedIn](#) page for QIBA updates should visit: <https://www.linkedin.com/company/rsna-qiba>

- Task force calls will be scheduled independently by task force champions/leaders, who will have the responsibility of reporting back to the BC; Co-Chairs will follow up with Focus Area volunteers for next steps