**QIBA FDG-PET Biomarker Committee (BC) Call**
07 October 2016 at 9 AM CT (GMT-6)
Draft Call Summary

**In attendance:**

*Rathan Subramaniam, MD, PhD, MPH (co-chair)*
*John Sunderland, PhD (co-chair)*
*Scott Wollenweber, PhD (co-chair)*
Ronald Boellaard, PhD
Terry Brown
Lindsay Chen, PhD
Jim Hamill, PhD
Howard Higley, PhD
John Hoffman, MD
Paul Kinahan, PhD
Jeff Kolthammer, PhD
Martin Lodge, PhD
Nancy Obuchowski, PhD
Amy Perkins, PhD
Eric Perlman, MD
Anne Smith, PhD
Huseyin Torè, MD
Timothy Turkington, PhD
Jeffrey Yap, PhD

**RSNA**
Joe Koudelik
Julie Lisiecki

**Moderator:** Dr. Sunderland

**Discussion Topics included:**

**Profile Checklist Update**

- The final version of the checklist will be included as an Appendix for the Profile
- The checklist has been broken down further into *two* checklists for more tailored use:
  - A site checklist
  - A scanner-specific checklist for vendors
- The checklists may be included with Dr. Kinahan's QIBA Profile paper (for *Radiology*) as examples to demonstrate how Profiles can be condensed for hands-on use
  - A final review of these documents is critical prior to submission
  - Comments or edits may be sent to: timothy.turkington@duke.edu and kinahan@uw.edu
- Both of these checklists are only two pages, making them usable, standalone documents
  - These documents will be posted to the QIBA wiki and distributed for review and comment
  - A record of which checklist items correspond to Profile sections was recommended to be compiled as an appendix in a table format by Dr. Turkington, for review
  - The Profile will be circulated among BC members for internal review with/out edits for streamlined review
- Some areas that may require further investigation include the utility of SUV lean body mass calculation
  - The possibility of QIBA investigating automated approaches to SUV lean body mass was discussed
  - It would be very helpful if a common approach, common algorithm, and standardized method for using the calculations were developed
- **Next Profile stages**
  - This next version will be considered a "Technically Confirmed" version
    - This is Stage 3 of the QIBA Profile Stages, and is defined as follows:
      - *Site(s) have performed the Profile and found it to be practical and expect it to achieve the claimed performance*
    - Stage 4 is the "Claim Confirmed" stage, defined as follows:
      - *Site(s) have performed the Profile and found it achieved the claimed performance*
    - In order to move to Stage 5, or the "Clinically Confirmed" version of the Profile, it would be necessary to conduct a clinical trial or piggy-back onto a pre-existing trial
- **Next Steps to move the Profile Forward**
  - Once the Biomarker Committee deems a Profile is ready for release, they inform their Coordinating Committee, which then officially votes to release via an e-ballot
  - The BC would like to have a finalized Profile version for Coordinating Committee consideration at RSNA 2016 during their NM breakout session
  - The next meeting of the FDG-PET BC is November 4th, which will be the last opportunity to discuss edits as a group prior to RSNA 2016

- **Remaining Questions**
  - Dr. Obuchowski pointed out that other Profiles specify work-station software as actors in Section 4
  - Presently, there is no claim for linearity mentioned
  - This may need to be reviewed or revisited during this editing phase

**Design of QIBA Kiosk Poster for RSNA 2016**

- BC members were reminded that RSNA 2016 posters will be due October 31st.
- Dr. Kinahan has agreed to coordinate contributions ( Kinahan@uw.edu )
- Previous posters are on the QIBA wiki on the Education tab: http://qibawiki.rsna.org/index.php/Education
- Questions to bear in mind when submitting FDG-PET project related updates include:
  - Why is this important?
  - How are we accomplishing our goals?
  - What results did we find based on our research?

**Presentation by Dr. James J. Hamill (Siemens)**

- Dr. Hamill gave an overview of his presentation entitled, *Can CT-Based Estimation of Lean Body Mass Reduce the Variance in PET – SUV in Normal Tissues?*
  - This was based on a study conducted by Siemens and University of Iowa hospitals, to review liver SUV in repeated PET/ CT studies of the same patient with a certain weight threshold over time
  - The focus of this study was assessing whether or not the weight-related SUV correction methodology used by vendor systems introduces variability
  - More testing is needed
  - Vendors are willing to do the testing but do not want to invest the time unless the user community at large would find any adjustments useful
  - If QIBA BC members agree that this is a high priority item, vendors may be encouraged to respond
  - Vendors supported the notion of a methodology to reduce variability if it could be programmed into a standardized workflow/approach
  - Nothing has been developed in this area yet
  - A push from clinical users would be a major incentive, i.e., must be user-driven
  - A multi-vendor, multi-site project might be needed
  - Possibly an algorithm challenge could be used to test the same algorithm with different machines
  - Dr. Perlman asked about variances and determining order of prioritization for a study
  - Dr. Boellaard to send a PDF to Dr. Perlman with information on similar studies that may be helpful

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| **October BCs:**<br>**Oct 14:** Amyloid BC<br>**Oct 21**: SPECT BC<br>**Oct 28**: NM CC @ 9:00 am CT (Friday) | **SPECT Task Forces: (Tuesdays at 2 pm CT) –**<br>**Oct 11:** SPECT TF (TBD)<br>**Oct 18:** SPECT TF (TBD) |
| **November BCs:**<br>**Nov 04:** FDG-PET BC<br>**Nov 11**: Amyloid BC<br>**Nov 18**: SPECT BC<br>~~**Nov 25**: NM Leadership~~ **(RSNA 2016)** | **SPECT Task Forces: (Tuesdays at 2 pm CT)**<br>**Nov 01:** SPECT TF (TBD)<br>**Nov 08:** SPECT TF (TBD)<br>**Nov 15:** SPECT TF (TBD) |