QIBA CT Small Lung Nodule (SLN) Biomarker Ctte (BC) Call
19 July 2018 at 2 PM CT
Call Summary

In attendance:

David S. Gierada, MD (Co-Chair)  
Rick Avila, MS  
Nancy Obuchowski, PhD  
Julie Lisiecki

James L. Mulshine, MD (Co-Chair)  
Charles Fenimore, PhD  
Eric Perlman, MD  
Alexander Guimaraes, MD, PhD

RSNA:

Moderator: Dr. Mulshine

Profile Updates:

- Proposed revisions to the SLN Profile were updated on the QIBA wiki
  - Clarified that measurement out to 175.0 mm is achieved with measurement of reference objects positioned at 0, 100, and 200 mm and interpolated at 160-mm
  - Iso-center distance was changed to 160mm
  - This allows sites to have multiple scanning modes if there is only a small field of view (FOV)
- Wording for verified vendor systems was updated as follows:
  - QIBA Verified Conformant CT Scanners: All FDA approved CT scanners with >= 16 detector rows are eligible for conformance testing and may be used at this time. In the future a verified list of scanners will be provided here.
  - QIBA Verified Conformant Nodule Analysis Software: All FDA approved Nodule Analysis Software are eligible for conformance testing and may be used at this time. In the future a verified list of nodule analysis software will be provided here.

International Association for the Study of Lung Cancer (IASLC) (Dr. Mulshine)

- An overview was provided on an open source quantitative lung volume experiment project
- A cloud-based tool, comprised of hub-and-spoke architecture, would serve as a database for cancer imaging data
  - Local data would remain housed locally
  - A copy of the anonymized publicly available data would be available in the cloud image archive
  - This cloud-based environment would provide the analysis and would allow for seamless collaboration amongst institutions internationally, as it would meet data requirements for the European Union (EU)
  - Data in the hub could aid millions of researchers around the world without having to move any data
- A pilot project is being built with open-source software to test this database, using two algorithms for lung volume and for small nodule measurements
  - This would include the lesion sizing toolkit and lung volume algorithms
  - Conformance process for lung cancer screening to be used
  - Efforts to culminate with live demonstration in Toronto during the September IASLC 19th World Conference on Lung Cancer
    - Goal is to demonstrate that the process can be completed in a highly secure fashion
    - The Clinical Trials Processor (CTP) will be used to assure removal of PHI
    - Quality control steps will be built into the process
- Conversation needed between IASLC and RSNA/QIBA on ways to expand efforts and bring QIBA to a larger audience
  - Dr. Obuchowski to be consulted
- Dr. Mulshine noted that the IASLC is comprised of approximately 7,000 thoracic professionals and that using the QIBA Profile in this manner is an excellent way to disseminate the Profile globally
  - It is hoped that the image archive can be used for deep learning once this pilot is complete
• Design would include a flexible environment for housing the data in modular constructs to keep images separate, should this be possible
• Datasets would be of great benefit to software vendors and could be a future revenue opportunity for QIBA

Next Steps
• Checklists can be referenced on the QIBA Wiki at: http://qibawiki.rsna.org/index.php/Profiles
• Suggestion to organize checklist items by actor type
  1. Feedback will be elicited from only a small group of sites
  2. Checklist to be refined based upon feedback
  3. Checklist will be sent to a broader group of sites

Next call: TBD - Calls will be scheduled bimonthly in the near future and will eventually be scheduled monthly