## QIBA CT Small Lung Nodule (SLN) Biomarker Ctte (BC) Call

09 January 2018 at 11 AM CT Call Summary

In attendance:			RSNA:
David S. Gierada, MD (Co-Chair)	Charles Fenimore, PhD	Nancy Obuchowski, PhD	Joe Koudelik
James L. Mulshine, MD (Co-Chair)	Alexander Guimaraes, MD, PhD	Kevin O'Donnell, MASc	Julie Lisiecki
Rick Avila, MS	Philipp Hoelzer, PhD	Anthony Reeves, PhD	
Andrew Buckler, MS	Artit Jirapatnakul, PhD	Mario Silva, MD	

Moderator: Mr. Avila

## Overview:

- Dr. Mulshine updated the Biomarker Committee members regarding the Profile attaining <u>Consensus Stage</u> after a recent vote
- Dr. Gierada mentioned that Profile reference numbering will need to be updated: this is ongoing
- An updated Profile will be posted to the QIBA Wiki for reference
- Information regarding the QIBA Process for Profiles, as well as other helpful information is available on the QIBA wiki:
  - o <a href="http://qibawiki.rsna.org/index.php/Main-Page">http://qibawiki.rsna.org/index.php/Main-Page</a>
  - o <a href="http://qibawiki.rsna.org/index.php/Process">http://qibawiki.rsna.org/index.php/Process</a>
  - o <a href="http://qibawiki.rsna.org/index.php/QIBA">http://qibawiki.rsna.org/index.php/QIBA</a> Profile Stages
  - o <a href="http://qibawiki.rsna.org/index.php/CT">http://qibawiki.rsna.org/index.php/CT</a> Small Lung Nodule Biomarker Ctte

## **Conformance Testing Status Updates (Mr. Avila):**

- To date, 20 CTLX1 phantoms have been distributed; 9 in the US, 1 in Canada, and 10 in China
- Hundreds of scans have been submitted, and image quality reports incorporating a wide range of CT scanners and protocols have been distributed to BC leadership
- One site has performed 75 scans trying different doses, recon kernels, and iterative reconstructions
- A request for an additional 40 phantoms is being processed now; 10 of these phantoms will go to Australia, with the remainder to other countries
- It is anticipated that 100 110 phantoms will be shipped in 1Q2018
- An automated low-dose noise detection software issue is being repaired
- An Accumetra conformance testing website is in development and will be linked from the QIBA Web page, once ready
  - o http://www.Accumetra.com/qiba-conformance-certification/
  - o Mr. Avila to provide some explanatory text for the RSNA QIBA page
- Use of a Profile conformance checklist suggested for site feasibility testing; at least two imaging sites to provide real-world user feedback regarding Profile implementation
- Currently, the Accumetra pilot study produces reports on participant /site performance, not a comparison to the performance of others
- Suggestions for refinements and improvements are always welcome: rick.avila@accumetra.com
- Additional datasets are needed for low-dose and conformance standards testing
- Some consulting with Dr. Obuchowski on numbers will be needed regarding the addition of ellipsoids (small nodules) within future modified SLN phantoms (in efforts to test both cylinder and ellipsoid scanner performance)
- Future work which may involve identifying/collecting clinical datasets would benefit from the expertise of Mr. Buckler, Dr. Petrick, and Dr. Obuchowski

## Volunteers needed:

- Volunteers are needed for a scanner vendor / site testing which will include DOE scanning and the analysis process
- Volunteers are asked to please contact Mr. Avila or any of the co-chairs: Drs. Armato, Gierada and Mulshine

Next call: Tuesday, January 16, 2018 at 1 pm CT