QIBA Lung Density Biomarker Committee (BC)
April 8, 2015 at 2 PM CT
Call Summary

In attendance

- Philip F. Judy, PhD (Chair)  
  - Sean Fain, PhD
- Andrew Buckler, MS  
  - Matthew Fuld, PhD
- Heather Chen-Mayer, PhD  
  - Nancy Obuchowski, PhD

RSNA

- Karen Procknow, RT (R)  
  - Jered Sieren, BSRT (R) MR CT
- Joe Koudelik  
  - Julie Lisiecki

Project Proposals for Round-5 (2015-2016)
- Dr. Judy reached out to committee members that might have projects for funding consideration
- Mr. Sieren to follow up with Drs. Newell and Hoffman regarding possible development of a new anthropomorphic phantom project
- Possible projects to focus on (1) IR reconstruction, (2) volume correction, (3) vendor CT number calibration
- Funding to be used for access to data and resources, analysis software purchases, travel to project-related meetings, etc.

AEC Project Update Using CIRS phantom
- Review of the noise index at different dose levels on GE scanners
- Search for commonalities based on noise performance and functional dependence of noise and its numerical index
  - This noise index review technique will be also be adapted for Siemens scanners
  - The project is relatively close to completion, though consultation with Siemens experts may be necessary to adapt the protocol properly

Analysis of COPDGene Cases
- Histogram data analysis via VIDA software is being compared to same images using Brigham analysis
  - Mr. Sieren suggested asking Dr. Lynch about assistance with analysis and getting in touch with Carla Wilson, data manager for COPDGene

Vendor COPDGene Phantom 2 Scanning
- Dr. Fuld is working with the analysis software developer to resolve issues with data sorting and organization
- Dr. Judy suggested that the vendors task force consider whether or not funding may be helpful in achieving their goals for the phantom scanning project
- Dr. Fain is trying to get a more robust phantom via the Kyoto group, a slightly modified version of the COPDGene phantom, to better measure spatial resolution
- Mr. Sieren is working with Phantom Labs on development of a cat phan insert which would be more anthropomorphic

Profile
- Templates with new conformance language to be re-distributed to the group for reference
  - These are also available on the QIBA wiki (http://qibawiki.rsna.org)
- Remaining questions:
  - Analysis Issues – Open Questions
  - Correction for scanner model variation – Vendor study results
  - Volume Correction - list possible methods
  - Specification noise – constrained by resolution
  - Conformance
  - Long term precision of phantom CT numbers

Next call:  Wednesday, April 22, 2015 at 2 pm CT, Topic: Vendor recommended profile changes
- Dr. Fain to moderate; Dr. Judy will not be available
- Dr. Fain to confer with Drs. Fuld and Hoppel before the call re: vendor update