

## QIBA Lung Density Biomarker Committee (BC)

February 24, 2016 at 2 PM CT

Draft Call Summary

### In attendance

*Sean Fain, PhD (Co-Chair)*

Andrew Buckler, MS

Philip Judy, PhD

### RSNA

Joe Koudelik

*Matthew Fuld, PhD (Co-Chair)*

Heather Chen-Mayer, PhD

Nancy Obuchowski, PhD

Julie Lisiecki

*David Lynch, MD (Co-Chair)*

Charles Hatt, PhD

Eric Perlman, MD

### Phantom Scanning, Round II Logistics:

- The Vendors Task Force has planned an on-site scanning schedule for the week of March 7 – 10<sup>th</sup>.
- Scanning will occur at U-Iowa (Monday) and at sites in Madison (Tuesday) and Marshfield, WI (Wednesday).
- Delays due to TSA screening of the Alderson2 Phantom at Iowa airport security are a concern
  - Dr. Fuld is considering the best way to transport the phantom
- In Iowa, Dr. Fuld will work with Alfonso Rodriguez, Dr. Fain's PhD candidate and Jered Sieren (VIDA)
  - Dr. Rodriguez is working on protocol harmonization for lung imaging between different manufacturers to create efficient automatic exposure control settings for each vendor
- Dr. Fuld will then travel from Iowa to Madison, WI to meet Drs. Fain, Hoppel (Toshiba), Crotty (GE), and Hatt (Imbio).
  - Dr. Fain is working on logistics for the scanning sessions in Madison
  - Dr. Hoppel to confirm logistics for the scanning sessions in Marshfield
  - Utilizing the morning time on Wednesday for additional scanning is also under consideration
- Several phantoms using Dr. Fain's AEC protocol will be scanned:
  - Alderson 2
  - COPDGene2
  - NIST foams phantom
  - CTDI phantom (A computed tomography dose index (CTDI) QA phantom)
- Testing will include the following:
  - automatic exposure control (AEC)
  - iterative reconstruction (IR)
  - vendor-specific harmonization protocols
- The ultimate goal is to harmonize 22 parameters, with different dose levels
- Dr. Fain welcomes contributions to the protocol: [sfain@wisc.edu](mailto:sfain@wisc.edu)

### Vendor Protocols:

- Ms. Dharaiya (Philips) plans to send updated parameters to Dr. Fain
  - Philips will not be able to participate this round due to a lack of access to scanners in the region
  - There is a possibility that Dr. Fain may be able to utilize Philips scanners at Cincinnati Childrens'
- Dr. Chen-Mayer noted that the group needs to include inhomogeneity data and determine how it is best interpreted to predict where the Hounsfield Unit (HU) will fall on the scale
  - There is a tradeoff between homogeneity and sample variance
- Work on convergence schema between vendors to continue

### For next call:

- Group to discuss volume adjustment analysis for the Profile and next steps needed to complete the Profile

**Next call:** Wednesday, March 23, 2016 at 2 pm CT