

QIBA Lung Density Biomarker Committee (BC)

May 25, 2016 at 2 PM CT

Draft Call Summary

In attendance

Sean B. Fain, PhD, (Co-Chair)

Matthew Fuld, PhD (Co-Chair)

David Lynch, MD (Co-Chair)

Andrew Buckler, MS

Heather Chen-Mayer, PhD

Dominic Crotty, PhD

Charles Hatt, PhD

Bernice Hoppel, PhD

Philip Judy, PhD

RSNA

Joe Koudelik

Julie Lisiecki

Phantom Purchase

- Dr. Lynch to follow up with Dr. Chen-Mayer and Mr. Levy regarding purchasing a COPDGene2 phantom (*with NIST middle density foams*) using COPDGene funds

Update: American Thoracic Society Conference 2016 (ATS)

- Dr. Lynch reviewed reduced-dose CT recommendations and dose modulation effects
- Subjects for this study were selected from the regular COPDGene population with a range of lung density
- Each subject received two consecutive scans:
 - one at full dose
 - one at reduced dose
- Two noted differences of interest were reduced dose and dose modulation
- The purpose of this study was to determine how well harmonization is working
- An ancillary study under COPDGene may be considered for additional data

Papers for Publication (Dr. Chen-Mayer)

- Dr. Chen-Mayer's paper has been submitted for external publication
- The paper covers the influence of scanner calibration and iterative reconstruction on the determination of low dose values used to eliminate machine-dependent variations
- An additional paper for meta-analysis of the group's recent Phantom Study is also under consideration

Phantom Study

- Some outstanding items that would be useful are as follows:
 - Iterative Reconstruction (IR) data with Toshiba methods (*Dr. Hoppel to provide*)
 - Automatic Exposure Control (AEC) measurements on IR data (*Dr. Hoppel to arrange another meeting with Dr. Alfonso Rodriguez at UW-Madison to finalize these data in the near future*)
 - Philips data (*Dr. Fuld is trying to obtain data on Philips scanner via his contacts*)
 - Once the data have been obtained, Dr. Fuld to begin work on the analysis
 - Dr. Fuld noted that University of Iowa software licenses have been renewed for the phantom study participants to aid in back-processing of the data
 - Excel spreadsheets should be forwarded to Dr. Fuld when complete: Matthew.Fuld@siemens.com.

Profile Status

- Dr. Fain is working on incorporating recent Profile updates and edits
- He hopes to be able to share updates this summer

Next call: Wednesday, June 8, 2016 at 2 pm CT (*to be determined if needed by June 5th*)