

QIBA COPD/Asthma Lung Density Reference & Consistency Standards Working Group

December 7, 2011 at 2 PM CST

Call Summary

In attendance

Philip F. Judy, PhD (Co-chair)

Paul L. Carson, PhD

Heather Chen-Mayer, PhD

Barbara Croft, MD

Sean Fain, PhD

Bernice Hoppel, PhD

Baojun Li, PhD

Dan Sullivan, MD

RSNA

Julie Lisiecki

Updates from RSNA 2011:

- Dr. Judy thanked Drs. Chen-Mayer and Fain for their help with formatting the Tech Ctte poster for 2011
 - Dr. Judy would like new volunteers to take the lead on the poster for RSNA 2012
- The breakout session at the QIBA working meeting was very productive
 - Dr. Newell outlined a plan for completing the Profile by dividing up areas by technical expertise / groundwork studies needed to support the claim
 - It is important that the work group keep in mind who the audience is for the Profile while working on these projects
 - Key partners in this work will be the CT engineers at Toshiba, Philips, Siemens, and GE.
 - Institution partners will be: University of Iowa, Brigham and Women's Hospital, University of Wisconsin-Madison, University of Michigan, NIST, National Jewish
- Feedback from pulmonologists and radiologists will be helpful

Projects in the Works:

- Dr. Judy to follow up with Mr. Levy regarding reporting a nominal bulk density of the foam associated with each phantom to aid in more accurate study measurements
- "Round-Robin" project will focus on testing the differences in specific CT models at several locations on scanners from Siemens, GE, Philips, and Toshiba.
- Dr. Judy will be working with NIST to test the phantom/ phantom inserts using three configurations:
 - Scanning the insert solo
 - Scanning the phantom with the insert
 - Scanning the phantom sans insert
- Dr. Fain also expressed an interest in working with the rings and inserts from Dr. Judy's phantom
 - The CT number changes at the edges of the phantom are probably due to scatter and the phantom not being sufficiently "thick"
 - Eliminating some of these sources of variability would result in fewer required phantom scan studies
- Dr. Fain will be working in tandem with the University of Iowa on the airways measurements

Next Steps:

- Group to discuss Profile work plan on next week's call, December 14th.
- Dr. Judy to follow up with Mr. Levy, Dr. Hoppel, and Dr. Chen-Mayer regarding projects.

Next meetings:

- Next COPD/Asthma TC update call: **Wednesday, December 14, 2011 at 2 PM CST**
- Next COPD/Asthma LDCRS WG update call: **Wednesday, December 21, 2011 at 2 PM CST**
- Next COPD/Asthma TC update call: **Wednesday, January 4, 2012 at 2 PM CST**
- **No call on December 28th**