

QIBA COPD/Asthma LDRCS WG

February 15, 2012 at 2 PM CST

Call Summary

In attendance

Philip F. Judy, PhD (Co-chair)

John D. Newell, Jr., MD (Co-chair)

Paul L. Carson, PhD

Heather Chen-Mayer, PhD

Barbara Croft, MD

Michael Flynn, PhD

Bernice Hoppel, PhD

Zachary Levine, PhD

Joshua Levy

Frank Ranallo, PhD

Daniel C. Sullivan, MD

RSNA

Julie Lisiecki

Agenda

1. Updates:

- NIST Reference Material
- UW Dose Reduction

2. Year 3 Possible NIBIB Projects - Gaps/Opportunities

3. Commutability of COPDGene Phantom with NIST Reference Foams

- “Commutability is the property of a reference material, demonstrated by the closeness of agreement between the relation among the measurement results for a stated quantity in this material, obtained according to two given measurement procedures, and the relation obtained among the measurement results for other specified materials.”

4. BWH experience with stacking COPDGene Phantoms.

- Cupping in stacked phantoms

Discussion Summary

Updates:

- NIST Reference Material
 - Dr. Chen –Mayer provided an update on the NIST reference foams
 - Density, variance in batches, and air pockets were discussed
- UW Dose Reduction
 - Dr. Ranallo provided an update on the phantom/ ring experiments that he and Dr. Fain conducted at the University of Wisconsin on the COPDGene Phantom and phantom loaned from Mr. Levy at Phantom Labs
 - Highly multidimensional scans with multiple varied measurements have produced interesting data
 - Axial scans were used to obtain the thinnest beam collimations

Year 3 Possible NIBIB Projects - Gaps/Opportunities

- Drs. Chen-Mayer and Levine are considering submitting an abstract to RSNA and possibly AAPM
- The topic of their proposed study is: *Finding a quantitative and valid definition of the Hounsfield Unit.*
 - They are applying for internal funding at NIST but seek collaborative support from colleagues to move this project forward and would like to partner with QIBA.
 - This might be accomplished via a “consensus conference,” with a panel of experts.

Other topics

- Dr. Judy believes that the Profile should focus only on lung density and that it can be optimized for lung density measurements.
- There are different scatter corrections for different data collection parameters.

Next Steps:

- More discussion is needed regarding Year 3 Possible NIBIB Projects

Next calls:

- Next COPD/Asthma Technical Committee update call: **Wednesday, February 22, 2012 at 2 PM CST**
- Next COPD/Asthma LDRCS WG update call: **Wednesday, February 29, 2012 at 2 PM CST**