

QIBA COPD/Asthma Technical Committee

May 02, 2012 at 2 PM CT

DRAFT Call Summary

In attendance

Philip F. Judy, PhD (Co-chair)

Paul Carson, PhD

Martin Connell, BSc

Barbara Croft, MD

Joshua Levy

Baojun Li, PhD

Daniel C. Sullivan, MD

RSNA

Joe Koudelik

Madeleine McCoy

Discussion Summary

Tech Committee Call Schedule

- Chairman recommended next conference call after the ATS meeting (5/30/2012)

Report and agenda items for the 2012 QIBA Annual Meeting:

- Dr. Judy will follow up with Drs. Mozley and Schwartz to determine whether any input is required for the CT Modality Ctte report on Day #1, and any additional agenda items for the Modality Ctte breakout session on Day #2

Phantom data update

- NIST foam scans continue
- Evaluation of the COPDGene phantom in progress
- Dr. Judy may not be convinced that the COPDGene Phantom is adequate to define a biomarker

COPD/Asthma Profile development

- Valid Claim still needed; revisiting this section of the Profile and focusing on a single biomarker recommended
- Need to develop scanner specifications in general terms, not protocols, to assist vendors
- Dr. Hoppel offered to help develop Toshiba-related scanner specifications
 - Brigham's and Women's Hospital and Dr. Stoel have access to Toshiba scanners and may participate
 - John Golden (CRO) may show interest to test a Toshiba system as well
 - Mr. Connell offered to help coordinate these "Toshiba efforts"

Biomarker priorities

- Group needs to choose either density or airway morphology as the biomarker to pursue
- **Quantitative imaging biomarker (QIB):** an imaging biomarker is quantitative if it consists only of a measurand (variable of interest) or if it consists of a measurand and other factors and all factors used to obtain the value of the imaging biomarker other than the measurand may be held constant, and both 1) the difference between two values of the measurand is meaningful, and 2) there is a clear definition of zero such that the ratio of two values of the measurand is meaningful.
- Biomarkers are defined as either Nominal, Ordinal, Interval, or Ratio (variables)

Assignments/Volunteers needed for:

- Develop a proposal to qualify CT scanner model using COPDGene Phantom
- Recommendation for the quantitative image biomarker
 - Use the CT Volumetry Profile as model to develop the COPD Profile
- Development of the RSNA 2012 (QIBA) Poster
- Draft a manuscript on axial edge artifact/scatter
- Round-robin of COPDGene Phantom with NIST foams
- Committee Member suggestions

Additional resources needed for:

- Round-robin COPDGene phantom scanning project may be funded by COPDGene opening more opportunities
- Air hole / trachea project - much interest shown in this scientific problem
- Methodology evaluation – axial CT numbers or air
- Metrics related to pathology needed

Next call: Next COPD/Asthma Technical Committee update call: **Wednesday, May 30, 2012 at 2 PM CT**