

QIBA Lung Density Biomarker Committee (BC)

Wednesday, May 24, 2023, 2 PM CT

Call Summary

In attendance

Miranda Kirby, PhD (Chair)

Mathis Konrad, MSc

Kyle Myers, PhD

Nancy Obuchowski, PhD

RSNA

Joe Koudelik

Susan Stanfa

Moderator: Dr. Hatt

Software Comparison Challenge Update:

- The COPDGene sub study was approved and images are accessible
- Analysis beyond the LAA-856 and lung volume measurements, e.g., low bar gas-trapping, mean lung density, inspiratory / expiratory ratio, and parametric response map measurements will be optional for study participants

Action items:

- [Dr. Kirby](#) to draft email for study participants providing the option for additional measurements with deadlines to include DUA detail and instructions for submission to the COPDGene Study
- [Julie](#) to send invitation once ready and prepare / edit Google form

Previous action items (please strike if complete):

- [Dr. Hatt](#) to follow up with [Dr. Kim](#) from Medical IP (AI solutions)
 - [Dr. Vegas Sánchez-Ferrero](#) to follow up with [Dr. Abadi](#) offline re: modeling for gas-trapping
 - [Dr. Hatt](#) to share the streamlined checklists for the lung density / emphysema Profile with BC members
 - [Dr. Hatt](#) received feedback from Dr. Lynch re: the Radiologist portion of the checklist and will solicit input from Drs. Kazerooni and Newell
 - [Dr. Hatt](#) to look into existing studies (e.g., spiromics, etc.) that might be compatible with the Lung Density Profile to aid with reaching Technical Confirmation and validating the algorithms used
 - Plan to replicate software comparison study with gas-trapping Profile
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- [Mr. Avila](#) to follow up with Dr. Noël offline to discuss reproducibility and replication of 3-D printed phantoms
 - [Drs. Hatt, Mulshine](#), and [Mr. Avila](#) to discuss a proposed combined Claim Confirmed (Stage 4) study with lung density and small lung nodule
 - [Dr. Fain](#) to follow up with a colleague, Alejandro C., regarding COPDGene papers, including FRC, Phase II, etc.
 - [Dr. Hatt](#) to ask Dr. Newell re: spiromics data ancillary studies once paper has been published
 - Volunteers needed to assist Dr. Vegas-Sánchez-Ferrero with segmentation work
 - [RSNA staff](#) suggest contacting [Dr. Hoppel](#) re: the multi-site Lung Density “road trip” experiment data
 - Standardized naming of actors across QIBA Profiles (medical physicist or image analysis core, TBD)
 - Exploration of cross-sectional claim instead of longitudinal for gas-trapping Profile

Next meeting: July 26, 2023

References: [Profile Stages page](#) | [Technical Confirmation Process](#) | streamlined Profile [conformance checklist](#)

- [Notes](#) posted to the [Lung Density BC QIBA wiki page](#) can be referenced for detailed descriptions of biomarkers
- Link to [Air-trapping Profile](#)