

## QIBA Lung Density Biomarker Committee (BC)

Wednesday, January 27, 2021, 2 PM CT

### Call Summary

#### In attendance

Charles Hatt, PhD (Co-Chair)	Philip F. Judy, PhD	John D. Newell, Jr., MD
Miranda Kirby, PhD (Chair)	Annelise Malkus, PhD	Nancy Obuchowski, PhD
Ehsan Abadi, PhD	Joseph G. Mammarrappallil, MD, PhD	Sam Peterson
Raul San Jose Estépar, PhD	Hatem Mehrez, PhD	Gonzalo Vegas-Sanchez-Ferrero, PhD, MSc
Sean B. Fain, PhD	Amin Motahari, PhD	

#### RSNA

Julie Lisiecki

**Moderator:** Dr. Hatt

#### Next QIBA Profile: Proposal Ideas Under Consideration (Drs. Kirby and Hatt)

- Dr. Kirby reviewed the results of the [second survey](#) for new quantitative Profile biomarker proposals for COPD, which was used to further narrow down interest
- 23 responses were received between December 17<sup>th</sup> – January 27<sup>th</sup>
- Gas trapping/Parametric response mapping (PRM) and lung texture were the most popular responses
- There was also significant interest in airway measurements and vascular volume
- One or two task forces at most would be formed to allow teams to pursue multiple Profiles in parallel
- The BC is also considering including Interstitial Lung Disease (ILD) in addition to COPD based on a 70% response, which ties in closely with lung texture analysis
  - Unfortunately, lung texture analysis is very difficult as reaching consensus on what to measure may impede efforts to write a Profile
- Dr. Estépar suggested that it would be wise to align with other biomarker efforts underway, specifically if they are already working toward qualification
  - He also mentioned considering a letter of intent and including volume percentage of fibrosis
  - Reaching out to similar groups to collaborate, or determining if there are groups already doing research in these areas could be beneficial
- For more detailed description of the previously discussed biomarkers, please see [recent notes](#) posted to the [Lung Density BC QIBA wiki page](#)

#### Other comments:

- Survey recipients may have responded based on expertise, not solely on interest
- The survey limited choice to only one response, though some may be willing to work with two task forces
- No names were included; so, a follow up email will be needed to ask members to sign up for task forces
- There is potential interest in a clinical trial with lung texture
- Airway measurements have more metrics available for study
- Drs. Newell and Vegas-Sanchez-Ferrero both work presently with gas-trapping and vascular volume
- Dr. Hatt thinks that gas-trapping and airway measurements could make the most difference now
- Dr. Fain brought up the idea of combined screening Profiles, as that had been previously discussed
  - Dr. Hatt suggested that ideally any of the Profiles pursued would be applicable to lung cancer screening
- Dr. Hatt mentioned that the BC had considered studying Pi10, but they had discovered different proprietary methods for calculation, which would cause issues with inter-software reproducibility
- Dr. Kirby said that segmental and sub-segmental airways will be important to discuss when task forces meet

#### Action items:

- Follow up email to determine task force groups based on interest
- Continue discussion of multi-parametric Profile suggestions on next call

**Next meetings:** 2/24, 3/24, 4/28, 5/26