

QIBA CT Volumetry Biomarker Ctte (BC) Call

21 March 2016 at 11 AM CT

Call Summary

In attendance:

Gregory Goldmacher, MD, PhD, MBA (Co-Chair)

Jenifer Siegelman, MD, MPH (Co-Chair)

Hubert Beaumont, PhD

Andrew Buckler, MS

Heang-Ping Chan, PhD

Paul Garrett, MD

Marios Gavrielides, PhD

Lubomir Hadjiiski, PhD

Rudresh Jarecha, MBBS

Michael O'Connor, PhD

Kevin O'Donnell, MASc

Eric S. Perlman, MD

Nicholas Petrick, PhD

Marthony Robins, PhD

Berkman Sahiner, PhD

Osamu Sakai, MD, PhD

Ying Tang, PhD

RSNA:

Joe Koudelik

Julie Lisiecki

Pilot Study of Recorded WebEx Calls

- CT Vol BC calls have been selected to pilot recording of QIBA WebEx calls
- Participants are asked to email the co-chairs with any concerns, prior to the group's next meeting: gregory.goldmacher@merck.com; jen.siegelman@gmail.com; ehsan.samei@duke.edu
- Recordings will be made available for 30 days, after which they will be deleted

Project Announcements

- Call for abstracts for RSNA 2016 – Deadline is **Wednesday, April 13th**, by noon CT
- Call for next round of funded project proposals – **due to qiba@rsna.org by April 15th**
 - High-level topic ideas may be sent to the co-chairs (*emails as above*)
 - Cross-modality applications are encouraged

State of the Profile (Mr. O'Donnell)

- Completion of the Profile is anticipated by the beginning of April 2016
- Remaining sections in need of attention require the expertise of members as follows:
 - Drs. Boedeker and Samei: Physicist input needed
 - Drs. Kim and Obuchowski: Statistician input needed regarding asymmetric values
 - Dr. Goldmacher to follow up with Dr. Kim
 - Mr. O'Donnell to provide status updates on the next call

Future Directions – continuing discussion

- Dr. Beaumont introduced the idea of image post-processing for texture analysis
- While of interest, there is no phantom data or ground truth regarding this method of image processing
- A collection of stable, standardized (texture) features would be useful
 - *Remaining questions:*
 - What is the measurand of biology?
 - Will the measurand have clinical relevance?
 - Will the measurand have true value, i.e., a known ground truth?
 - What is the treatment response?
 - What is the tumor outcome?
 - What would be the causal pathway?
- The group discussed how reviewing the CT Small Lung Nodule Profile may be a good starting point
 - What has been done with regard to textural features could be leveraged for this effort
 - A possible extension of the group's work with a phantom might be possible
- In order to move forward / propose a project, the use case must be clarified first
 - A literature analysis / search on this topic would be needed
 - Volunteers would be needed for an exploratory task force
- Consideration will be given to formation of task forces to pursue literature review for potential biomarkers with clinical correlation

Action items: Mr. O'Donnell to continue updating the Profile for BC comment and review

Next Call: Monday, March 28 at 11 am CT | 2016 planning and review of the Profile and Next Steps