

QIBA CT Volumetry Biomarker Committee (BC) Update Call

08 June 2015 at 11 AM CT

Call Summary

Additional notes provided by Dr. Goldmacher

In attendance:

Samuel G. Armato III, PhD (Co-Chair)

Gregory V. Goldmacher, MD, PhD (Co-Chair)

Andrew Buckler, MS

Heang-Ping Chan, PhD

Charles Fenimore, PhD

David Gustafson, PhD

Lubomir Hadjiyski, PhD

Rudresh Jarecha, MBBS

Philip F. Judy, PhD

Hyun Grace Kim, PhD

Michael McNitt-Gray, PhD

Shintaro Nawata, MD

Nancy Obuchowski, PhD

Michael O'Connor, PhD

Kevin O'Donnell, MASc

Nicholas Petrick, PhD

Daniel Sullivan, MD

Ying Tang, PhD

Pierre Tervé, MS

Lifeng Yu, PhD

RSNA:

Joe Koudelik

Julie Lisiecki

Continued Discussion: Field Test and Logistics

- Dr. Jenifer Siegelman has volunteered to serve as the Coordinating PI for the project, and a formal project proposal has been submitted for consideration for Round-5 funding

Important considerations to be resolved:

- These volunteer sites that have been identified and contacted are:
 - Duke University (Dr. Ehsan Samei)
 - Harvard/ Brigham and Women's (Dr. Jenifer Siegelman)
 - Columbia University (Drs. Larry Schwartz and Binsheng Zhao)
- One additional site is needed. Factors that make for a good site:
 - An engaged PI (radiologist) and oncologist are needed at each site
 - Feasibility of protocol implementation and IRB approval
 - Established track record of each site's clinical trial accrual
 - Availability of an experienced Research Coordinator at each site
 - Scanners to be used and protocols needed for each
 - Scanners must have the ability to scan and re-scan the liver within specific time window
 - Scanners physically located so that "coffee break" timing is feasible
 - Ideally, scanners from vendors not already covered, but not a requirement
- Drs. Goldmacher and Siegelman to follow up with the following potential sites and PIs:
 - Moffitt Cancer Center (Dr. Robert Gillies)
 - Mayo Clinic (Dr. Lifeng Yu)
 - University Medical Center Groningen (the Netherlands) (Dr. Peter M.A. van Ooijen)
- A central data repository must be identified that can accommodate non-image data, anonymization, and storage
 - Under consideration:
 - RSNA / QIDW
 - Dr. Kalpathy-Cramer's expertise may be needed
- Budget impact must be reconsidered due to change in scan numbers:
 - 88 patients for chest + 88 patients for abdomen = 176 patients total
- Statistical analysis changes to accommodate design changes:
 - Dr. Obuchowski suggested interim analysis at ~50% recruitment to see whether data can be pooled.
 - Pooling of liver scans (w/ contrast), chest scans (w/o contrast) and lymph nodes suggested.
 - Analysis will need to be designed and set up well before end of data collection.
- Timeline proposed
 - 0-6 months: Obtain IRB approval and general set-up
 - 6-18 months: cases collected
 - 18-24 months: reads performed and analyzed

- Future discussion topics for the committee:
 - Profile
 - Field Test
 - Conformance as it relates to readers, specifically
 - Clinical confirmation for the Profile
 - Reports on progress from Drs. Petrick / Zhao (mid-July or later)
 - Reports on progress from Drs. Samei / Sahiner

Action items

- Dr. Goldmacher to invite / remind presenters about upcoming presentations to the BC
- RSNA Staff to coordinate two ad-hoc calls / doodle poll for physicists, statisticians (Profile)
- All are welcome to provide suggestions for summer call schedule topics: Gregory.Goldmacher@iconplc.com

RSNA / MIRC:

[The Medical Imaging Resource Center \(MIRC\)](#) is a set of free software tools to support radiology teaching files and imaging clinical trials. The [Clinical Trials Processor \(CTP\)](#) allows you to move data with the most powerful anonymizer in the industry. Employed by the National Cancer Institute, the CTP can anonymize all DICOM objects with a single click and send data across institutions, dramatically minimizing errors and saving you time. It supports industry-standard protocols and can be configured to work with all commercial PACS systems.

Next Calls:

- **TBD** - Continuation of Field Test Planning Discussion / (to confirm with co-chairs)
- Ad-hoc calls for physicists and statisticians