

QIBA Volumetric CT Group 3A Update
Thursday, 09 January 2014 at 11:30 AM CT
Call Summary

In attendance

Maria Athelougou, PhD (Chair)
Hubert Beaumont, PhD
Andrew Buckler, MS
Alden Dima, MS
Matthew Fuld, PhD

Marios Gavrielides, PhD
Rudresh Jarecha, MBBS
Ninad Mantri, MS
Adele Peskin, PhD
Nicholas Petrick, PhD

Ganesh Saiprasad, PhD
Daniel Sullivan, MD
Ying Tang, PhD
Peter van Ooijen, MSc, PhD

RSNA

Joe Koudelik
Julie Lisiecki

Update: Status of the Clinical Challenge as of 1/09/2014

Sorted alphabetically – these are the current clinical challenge participants:

- | | |
|---|---|
| 1. Fraunhofer MEVIS | 7. Mirada Medical Ltd. |
| 2. GE Healthcare | 8. Perceptive informatics |
| 3. ICON Medical Imaging | 9. Siemens AG |
| 4. Keosys | 10. University of California, Los Angeles |
| 5. MEDIAN Technologies | 11. University of Michigan |
| 6. Medical University of South Carolina | 12. Vital Images, Inc. |

There are 12 participating sites testing 13 algorithms.

Participants are reminded to send any questions to RSNA Staff at QIBACHallenge@rsna.org to maintain anonymity and study integrity.

Analysis of the challenge was delayed due to an unforeseen government shut-down in late 2013.

Analysis is scheduled to pick up according to the three-month schedule, as of 1/8/2014.

A preliminary statistical analysis report is anticipated by the end of March 2014.

- o Individualized reports will be sent to participants at this time.

Group 3A calls will resume their bi-weekly schedule after the January 30th call, starting on February 13th for discussion of analysis with study organizers and challenge participants.

Clinical challenge paper to be drafted in parallel with the analysis to keep momentum.

Suggested ideas for future challenges/ direction of Group 3A were:

- o Clinical algorithm challenge with synthetic data additions
 - o Evaluation of liver lesions or lymph nodes
 - o Comparison of QIBA 3A challenge methodologies to MICCAI (MICCAI rep to be invited to future 3A call)
 - o A study utilizing the new technique of synthetic lesion addition in projection space from Dr. Samei's laboratory
 - o A study to build on the minimum detectable change paper for liver lesions (Dr. Zhao)
 - o Collaboration between QIBA Group 3A and QIN joint interest projects
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Update: Status of the Paper for the Pilot/Pivotal Challenge

NIST has assigned Dr. Peskin to coordinate the review process in lieu of Mr. Dima

There are a few editorial items that still need to be addressed:

- o Clarification of results in terms of bias vs. absolute error
 - Bias and mean percent error were somewhat confusing
 - Statistical methodology to be reviewed
 - There is an implication that individual algorithms performed somewhat better than expected.
- o Grammar/ usage editing for enhanced flow of the paper

Next call: Thursday, January 30, 2014 at 11:30 AM CT.