

**QIBA Volumetric CT Group 3A Update**  
Thursday, 4 September 2014 at 11:30 AM CT  
Draft Call Summary

**In attendance**

*Maria Athelougou, PhD (Chair)*  
Andrew Buckler, MS  
Heang-Ping Chan, PhD  
Marios Gavrielides, PhD

Lubomir Hadjiiski, PhD  
Rudresh Jarecha, MBBS  
Nancy Obuchowski, PhD  
Eric Perlman, MD

Adele Peskin, PhD  
Nicholas Petrick, PhD  
Ying Tang, PhD  
Amit Vasanji, PhD

**RSNA**

Joe Koudelik  
Julie Lisiecki

**Update: Paper for the Pivotal Phantom Challenge**

- The manuscript was submitted to *Interventional Radiology* for review
- Dr. Athelougou plans to contact the journal for an update

**Update: Paper for the Clinical Challenge**

- Dr. Gavrielides is awaiting additional FDA reviewer comments.
- Dr. Peskin has initiated the NIST review process.

**CT Vol 1A, 1B and 1C Project Overview (Mr. Buckler)**

- Building another QIBA 3A challenge based on elements of the 1C study was discussed
  - “Reader Study of Phantom Nodule Sizing on Multiple CT Scanners” from April 2, 2012 (QIBA Group 1C)
    - To-date, there are no publications from Groups 1C or 1B.
  - Goal of the 1C study was to catalog sources of error and variance, and to test each one with a life-cycle management approach
  - All actors need to be able to test devices and software independently to determine Profile compliance
  - Device-independent parameter settings must be determined to achieve this goal
- Discussion progressed to how the QIBA 1C and 1B data may be used to establish 8 different estimates of precision/ accuracy for inter-scanner variability
  - A table comprised of reader, scanner, algorithm, and combinations of these actors would be valuable, particularly with regard to sample sizes for a compliance study
  - Inter-scanner variability estimates may lay the groundwork for a future clinical study
- The possibility of designing a challenge with a “common set of readers” was also suggested
- Consideration regarding incentive for volunteer participants deemed important
  - QIBA 3A challenge participants are asked to share insights: [andrew.buckler@elucidbio.com](mailto:andrew.buckler@elucidbio.com); [mathelougou@definiens.com](mailto:mathelougou@definiens.com)
- The group is still considering challenge options and is open to ideas.
- Suggestions should be sent to Dr. Athelougou: [Mathelougou@definiens.com](mailto:Mathelougou@definiens.com).

**Action items:**

- Sometime after September 2014, Dr. Athelougou will invite a MICCAI representative to give a presentation about comparison of challenge methodologies for statistical evaluation of algorithm results.
- Practical suggestions for the future work of Group 3A to be sent to Dr. Athelougou: [Mathelougou@definiens.com](mailto:Mathelougou@definiens.com).

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**Next call:** Thursday, **September 18, 2014** at 11:30 AM CT.