

## QIBA CT Volumetry Biomarker Ctte (BC) Call

03 April 2017 at 11 AM CT

### Call Summary

In attendance:			RSNA:
<i>Ehsan Samei, PhD (Co-Chair)</i>	David Gustafson, PhD	Kevin O'Donnell, MASc	Joe Koudelik
<i>Jenifer Siegelman, MD, MPH (Co-Chair)</i>	Lubomir Hadjiiski, PhD	Nicholas Petrick, PhD	Julie Lisiecki
Hubert Beaumont, PhD	Philip Judy, PhD	Marthony Robins, PhD	
Andrew Buckler, MS	Yongguang Liang, PhD, DABR	Na Sun, PhD	
Heang-Ping Chan, PhD	James Mulshine, MD	Ying Tang, PhD	
Charles Fenimore, PhD	Nancy Obuchowski, PhD	Pierre Tervé, MS	
Matthew Fuld, PhD	Michael O'Connor, PhD		

**Review prior call summary:** March 20<sup>th</sup> summary approved as submitted

### Discussion included the following:

#### CT 233 Testing: (Dr. Fenimore)

- Goal was to determine CT resolution with the CT accreditation phantom by comparing the Profile referenced CT 233 software to visual inspection

#### Modulation Transfer Function (MTF) language:

- Drs. Supanich, Robins, and Samei are collaborating on Modulation Transfer Function (MTF) and Z-axis resolution language in the Profile Checklist to aid technologists

#### CT Quantification Beyond Volume and Volume Change: Texture, Morphology, and Composition: Magnitudes and Changes:

1. Relevance: What is worth measuring?
2. Objectivity: What are we measuring?
3. Quantification: How do we quantify?
4. Implementation: What tool do we use to measure?
  - Currently, no standardized measure of texture exists; investigation of texture may be outside the scope of QIBA
  - Possible applications for texture might be use in surgical planning if more robust quantification is possible
    - Data quality is an important factor regarding artificial intelligence (AI); QIBA may be able to help here
    - Questions remain regarding how to quantify texture, and what level of data quality we need to strive for
    - Determining how to produce images that are of more consistent quality could be very useful
      - Discussion on this topic to continue

#### Action items:

- Additional spreadsheets for a regression module and coordinates for RIDER tumors are being compiled by Mr. Tervé
- Drs. Samei, Robins, and Supanich to collaborate on Z-axis resolution and Modulation Transfer Function (MTF) language for the Profile
- Those interested in a Texture/ Morphology TF are asked to email the co-chairs or RSNA Staff: [jlisiecki@rsna.org](mailto:jlisiecki@rsna.org)

**Next Call:** Monday, April 10, 2017 at 11 am CT – (Biomarker Committee)