

## QIBA Contrast Enhanced Ultrasound (CEUS) Biomarker Committee (BC) Call

Friday, January 10, 2020; 11 AM CT

Draft Call Summary

### In attendance

Mike Averkiou, PhD (Co-Chair)

Todd Erpelding, PhD (Co-Chair)

Paul Carson, PhD

Brian Garra, MD

Christian Greis, PhD

Luna Hilaire, PhD

Reinhard Kubale, MD

Zaiyang Long, PhD

Nancy Obuchowski, PhD

Nicolas Rognin, MSc, PhD

Douglas Stone, PhD

### RSNA

Joe Koudelik

Susan Stanfa

**Moderator:** Dr. Averkiou

### Approval of 12.13.2019 call summary

- The summary was approved as presented

### Draft Variability Manuscript Update (Dr. Averkiou)

- Dr. Averkiou provided a brief overview of the group's first manuscript focusing on a variability study. Linearization and curve fitting combinations per scanner used were shown in fig. 2
- Time intensity curve (TIC) data were analyzed three different ways
- Data from four vendor systems were included in tables (2-3) and figures (6-9)
- Four perfusion-related parameters were tested and standardized across multiple software packages
- Measurement variability due in clinical studies needs to be included in the discussion; Drs. Averkiou and Greis to follow up offline regarding "patient variability"
- Dr. Hilaire offered to review and provide feedback within 10 days
- Internal BC review and feedback is encouraged
- Dr. Averkiou to request industry (Bracco) review and approval before submitting manuscript
- Plans to submit soon to *Investigative Radiology* due to the basic science nature of the study, (i.e., study was deemed not clinical enough for a journal such as *Radiology*)
- A future study to examine the variability due to contrast agents (using the same scanner and software package)
- Dr. Averkiou noted that funding (e.g., NIH) was needed to move beyond a volunteer effort and push the field forward

### QIBA CEUS Profile Update

- Profile to focus on four areas: protocol, image acquisition, curve fitting and four standard measurement parameters
- Amplitude normalization across systems will be a future focus for the Profile, but funding will be needed
  - If funding not available, amplitude normalization/standardization may need to wait for Profile v2.0
- Drs. Carson and Garra offered to assist Dr. Averkiou offline with the QIBA Profile Template and overall Profile creation process
- QIBA Profile Template available on the QIBA Wiki at: [http://qibawiki.rsna.org/index.php/QIBA\\_Profile\\_Template](http://qibawiki.rsna.org/index.php/QIBA_Profile_Template)

### Next steps:

- Dr. Carson to locate Dr. Averkiou's 2019 Bubble Conference presentation for reference
- Drafting the CEUS Profile will begin with assistance from Drs. Carson and Garra

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The next scheduled QIBA ultrasound calls will be as follows at 11 am CT:

02/07	SWS BC
02/14	CEUS BC
02/28	US Coordinating Committee, Q1, 11 am CT

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