

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

Friday, September 10, 2021; 11 AM CT

Call Summary

In attendance

Mike Averkiou, PhD (Co-Chair)
Todd Erpelding, PhD (Co-Chair)
Paul Carson, PhD
David P. Duncan, PhD, MSE
Christian Greis, PhD
Gerard (Ged) Harrison, BS
Luna Hilaire, PhD

Connor Krolak
Stefanie Y. Lee, MD, FRCPC
Zaiyang Long, PhD
Thanasis Loupas, PhD
Ying Luan, PhD
Steve Metz, PhD
Nancy Obuchowski, PhD

Michelle Robbin, MD
Nicolas Rognin, MSc, PhD
Theresa Tuthill, PhD
Bino Varghese, PhD
Stephanie Wilson, MD
Heng Zhao, MS, PhD

RSNA

Joe Koudelik
Julie Lisiecki

Moderator: Dr. Averkiou

Approval of most recent call summary

- The 08-13-21 call summary was approved as presented.

Announcements

- The [IEEE/IUS symposium](#) is being planned for Sept 11th – 16th, 2021 as a virtual conference
- The 35th International [Bubble Conference](#) will be an in-person meeting in Chicago, IL, Sept 29th – Oct 1st, 2021
 - Dr. Wilson mentioned that participants from Europe and Asia will not be able to attend in-person due to COVID-19 travel restrictions
 - There will be online coverage for virtual attendees
- [The European Symposium on Ultrasound Contrast Imaging \(Rotterdam\)](#) is being planned as an in-person meeting for January 2022
- The [Acoustical Society of America](#) is planning an in-person meeting in Seattle from Nov. 29- Dec. 3, 2021
- [RSNA's 107th Scientific Assembly and Annual Meeting, Redefining Radiology](#), is being planned as an in-person meeting in Chicago from Nov. 28 to Dec. 2, 2021

Perfusion quantification for inflammatory bowel disease (IBD) (Dr. Wilson)

- Dr. Wilson emphasized the importance of perfusion quantification in the clinical application of IBD
- Assessment is done with B-mode, color doppler imaging (CDI) and CEUS quantification
- IBD perfusion quantification may be another clinical application for the QIBA CEUS Profile
- CEUS, along with the use of micro bubbles, is an important diagnostic tool, and is less invasive for therapy monitoring, particularly for pediatric populations
- The biggest issue for the field is a lack of standardization of equipment
- Dr. Wilson and her team have created their own rigorous quantification method, but standardization of methods and equipment is important for clinical applications
- 200 patients were used to determine thresholds

Takeaways from the presentation (Dr. Averkiou)

- The BC to set a directive to guide companies and researchers regarding the necessary steps for standardization
- IBD is the most therapy-monitoring demanding disease and requires constant surveillance
- QIBA CEUS partner companies will be asked to commit to minimum standardization
- Dr. Averkiou intends to send some follow-up emails to aid the team in moving forward
- Profile recommendations are needed, and companies will need a statement from the BC explaining why this is beneficial for the broader community
- Solutions to work around the availability of linearized data, which is essential for quantification, is now the primary focus for the BC, and all manufacturers and software developers are encouraged to address this issue
- The CEUS BC would like to convince all companies to use 'log-normal' and standardized parameters/terminology
- Besides vendors, greater clinician input is needed for drafting the Profile Claims language

Action items – next call

- All are asked to invite friends and colleagues who can contribute to CEUS BC discussions
- Dr. Averkiou to invite specific colleagues to upcoming calls based on their expertise for planned topics

Action items (ongoing)

- Dr. Averkiou to invite manufacturer reps to discussions regarding linearized data and CEUS needs
- Dr. Averkiou plans to use the reformatted QIBA Profile Template, which centers around the Checklist, and has a streamlined introduction and executive summary
- CEUS BC SMEs are asked to get more involved with the Profile activities
- Participation from BC members with experience with the QIBA Profile-writing process is crucial
- **Endnote:** For reference details in Endnote and Excel formats, please email Connor Krolak at: krolakc@uw.edu

The next scheduled calls will be as follows at 11 am CT, unless otherwise noted:

10/08	CEUS BC
11/12	CEUS BC

RSNA Staff attempt to identify and capture all committee members participating on WebEx calls. However, if multiple callers join simultaneously or call in without logging on to the WebEx, identification is not possible. Call participants are welcome to contact RSNA staff at QIBA@RSNA.org if their attendance is not reflected on the call summaries.

Helpful Resources (QIBA wiki):

- [Profiles](#) | [QIBA Profile template](#) | [How to Write a QIBA Profile](#) | [Claim Guidance](#) | [US Shear Wave Speed Profile](#)
- All Profile Editors are encouraged to join the QIBA Process Committee to learn about QIBA writing tips and processes and network with other Profile Editors to exchange best practices

QIBA Process Committee:

Kevin O'Donnell, MASC (Chair): Kodonnell@MRU.MEDICAL.CANON | Michael Boss, PhD (Chair): mboss@acr.org