

QIBA Ultrasound Shear Wave Speed (SWS) Biomarker Committee (BC) Call

Friday, September 7, 2018; 11 AM CT

Call Summary

In attendance

Tim Hall, PhD (Co-Chair)

Brian Garra, MD (Co-Chair)

Paul Carson, PhD

Todd Erpelding, PhD

Joel Gay, MSc

Al Gee

Michael MacDonald, PhD

Ravi Managuli, PhD, RDMS

Stephen McAleavey, PhD

Kathy Nightingale, PhD

Nancy Obuchowski, PhD

Arinc Ozturk, MD

Keith Wear, PhD

RSNA

Joe Koudelik

Julie Lisiecki

Moderator: Dr. Hall

Approval of 07.27.2018 call summary

- The summary was approved as written

Posters for RSNA 2018:

- The US modality has been assigned two poster spaces for 2018
- Contrast-Enhanced Ultrasound (CEUS) and Volume Blood Flow (VBF) will be the focus of poster content

Manuscript update:

- Dr. Palmeri has completed a comprehensive paper and submitted it for publication consideration to *Radiology* as of September 7th
 - The paper summarizes conclusions from the ultrasound shear wave speed (US SWS) phantom phase I & II experiments, which informs the Profile regarding acoustic attenuation in the liver

Profile update:

- Dr. Garra is reviewing the edits to the Profile made by Mr. O'Donnell
- He intends to address low priority comments and follow up with any comment responders as needed for clarification
- It is hoped that these comments can be addressed within the next two weeks and will be distributed for re-review by the BC soon
- Adjustments will be made to the Table of Contents
- Comments are welcome to Drs. Garra and Hall: Brian.Garra@fda.hhs.gov; bgarra@gmail.com; tjhall@wisc.edu

Next Steps:

- Consensus on next steps is yet to be determined by the BC
- Concepts that may require further discussion include the following:
 - US imaging vs. Fibroscan data extrapolation and estimation of dispersion
 - Consider using the QIBA protocol that was recently published to run Verasonics
 - Consider performing calibrations using an open-source tool for manufacturers
 - Manufacturer utilization of scanner calibration phantoms
 - Many calibration phantoms are available today (e.g., CIRS, uniform elastic phantoms, for use with the QIBA acquisition protocol)
 - Manufacturers utilization of standardized reporting with calibrated phantoms
 - Frequency range issue remains unsolved; only recommendations can be made
- In the Profile, tolerances are set for the elastic phantom, not the viscoelastic phantom
- Dr. Carson to make an outline of a letter to the editor to accompany Dr. Palmeri's manuscript with suggestions of studies to aid extrapolation from shear wave frequencies used in the US SWS imaging systems to those used in Fibroscan and MRE.

Profile Approval Process Next Steps:

- See voting and balloting process links <http://qibawiki.rsna.org/index.php/Process>
- Voting to release the Profile for public comment will be done electronically

QIBA US Schedule:

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- **Sept 14:** CEUS BC
 - **Sept 21:** US Coordinating Committee
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- **Oct 05:** SWS BC
 - **Oct 12:** CEUS BC
 - **Oct 31:** RSNA 2018 poster deadline