



PULSE-ECHO QUANTITATIVE ULTRASOUND

BIOMARKER COMMITTEE

Agenda for Friday, August 6, 2021

11:00am – 12:00pm

Attendees: Ivan Miguel Rosado-Mendez (Co-Chair), Michael Wang, (Co-Chair), Cristel Baiu, Richard G. Barr, Paul L. Carson, Anil Chauhan, Guy Cloutier, Aaron Engel, Todd Erpelding, Raul Esquivel, J. Brian Fowlkes, Jing Gao, Timothy Hall, Aiguo Han, Jean-Pierre Henry, Viksit Kumar, Roberto Lavarello, Tian Liu, Ted Lynch, Jonathan Mamou, Ravi Managuli, Glen McLaughlin, Kibo Nam, Gary Ng, Arinc Ozturk, Theodore Pierce, Michelle L. Robbin, Stephen Rosenzweig, Timothy Stiles, Theresa Tuthill, Keith Wear, James Zagzebski

AIUM Staff: Kelly Phillips

TOPIC	COMMENTS	ACTION ITEMS
Introduction	Welcome (MW, 5 min)	
Position Paper	Update on joint AIUM/QIBA position paper (IRM, 5 min)	
Funding	Update on funding for phantom study (MW, 5 min)	
Work Groups	Work Group Progress Reports <ul style="list-style-type: none"> a. Attenuation (10 min) b. Sound Speed (10 min) c. Backscatter (10 min) d. Phantom – discussion on phantom specs (10 min) 	

Discussion	Closing remarks/discussion (MW, 5 min)	
NEXT CALL	Date: September 3, 2021 Time: 11:00am, EST	

- IRM - Update on position paper
 - First draft is ready – waiting on approval before sharing – it will go to the co-authors for comment
- MW – Funding
 - Received donations from a couple of vendors; if supporting documentation is needed to submit an application for funding, please reach out to the PEQUS co-chairs

Work Group Updates

- TS – Phantom WG
 - Complete specifications sent earlier this week
 - Biggest change is the amount of beads needed for backscatter – need about 10 times as many beads as incorrect estimate previously sent out
 - Tim/Kelly will send out an update
 - IRM – received 3 hockey pucks and have measured attenuation and sound speed, finishing up backscatter coefficient; will report back to Cristel on the values measured with a clinical scanner and with the hockey pucks
 - IRM – glass beads for the references have a narrow distribution; do not need to be as controlled; use 3000 glass beads with diameters from 5-43 microns?
 - TH – below 45 microns – distribution is still commercially available
 - TS – Can make some test cylinders on Monday with some different concentrations
 - IRM - Challenges regarding BSC – to reduce volume fraction of one phantom to 0.4% , hoping to reduce concentration by half, keeping the other one with a concentration of 0.5% - provides 3 backscatter levels at 3MHz

- RL, AH, TT agree

- VK – Attenuation WG
 - Discussed the measurement protocol
 - Asked vendors to fill out vendor specific information (received from 8 vendors)
 - Position paper on attenuation in press (Radiology)
 - Action items
 - Collate measurement information from different vendors into a single excel sheet to be circulated during phantom study
 - VK – measurement sheet mentions depth of 3, 4, 5cm; we want to measure at the depth values that make most sense for vendors and clinically

- SR – Sound Speed WG
 - SoS review paper
 - Outline completed
 - Initial section assignments completed
 - Will discuss assignments and tasks at next WG meeting
 - Spreadsheet for Round Robin Study
 - Outlined initial study design during last WG meeting
 - Utilize template from WG summary document

- AH – Backscatter WG
 - Discussion on pairing academic sites with vendor
 - Ivan has info
 - Discussion on Attenuation compensation
 - Need to estimate contribution from fat and muscle in abdominal wall
 - Dr. Barr offered scans with measured skin thickness
 - Fat and muscle not annotated, however
 - Anil Chauhan volunteered to analyze images

- PC – measurement depth – need ROI for attenuation measurement – considering?
 - VK – values are related to the center of the ROI (not ROI size) – placeholder values – to be revised based on protocol and clinical input