



**PULSE-ECHO QUANTITATIVE ULTRASOUND
BIOMARKER COMMITTEE**
Agenda for Friday, December 4, 2020
11:00am – 12:00pm

Attendees: Ivan Miguel Rosado-Mendez (Co-Chair), Anthony Samir (Co-Chair), Michael Wang, (Co-Chair), Stephane Audiere, Cristel Baiu, Richard G. Barr, Paul L. Carson, Anil Chauhan, Yuling Chen, Guy Cloutier, Chris De Korte, Todd Erpelding, Giovanna Ferraioli, Raul Esquivel, Jing Gao, Joel Gay, Timothy Hall, Aiguo Han, Jean-Pierre Henry, Viksit Kumar, Roberto Lavarello, Tian Liu, Jonathan Mamou, Stephen McAleavey, Glen McLaughlin, Kibo Nam, Juvenal Ormachea, Soufiane Ouhda, Arinc Ozturk, Theodore Pierce, Stephen Rosenzweig, Jonathan Rubin, Laurent Sandrin, Paul Sidhu, Timothy Stiles, Kai Thomenius, Michael Thornton, Theresa Tuthill, Xiaohong Wang, Keith Wear, James Zagzebski, Nancy Obuchowski

AIUM Staff: Kelly Phillips

AS: Anthony Samir
IRM: Ivan Rosado-Mendez
MW: Michael Wang

TOPIC	COMMENTS	ACTION ITEMS
Introduction	Welcome (AS)	
Work Groups	Work groups progress reports <ul style="list-style-type: none"> • Attenuation WG (VK, AO, RB) • Backscatter WG (AH, RL, TT) • Sound Speed WG (SR, TP) • Phantom WG (TS, DF) 	-Kelly to help set up decision meeting with phantom WG

Round Robin Review	Review of logistics of round robin study (IRM)	
Discussion/Comments	Open Discussion/Wrap up	-Logistics for phantom study (AIUM/RSNA)
NEXT CALL	Date: January 8, 2021 Time: 11:00am, EST	

AS - Thank you to Giovanna who has agreed to become a co-chair for the attenuation work group

VK – Attenuation work group summary

- has agreed on 5MHz for frequency range
- Recommend max 1db/cm/MHz
- CAP values – 3.5MHz (LS)
- Literature evidence suggests attenuation independent of fibrosis
- Quality score – recommend displaying numeric value for quality
- Reproducibility measurements – at least 5, use median value
- Action Items
 - o Compiling literature review
 - o Rough draft of profile

TT – Backscatter WG Summary

- Need reference phantom for system calibration
- Round robin phantom ideally closer mimic liver
- Drafting technical aspects of profile
- Organizing literature
 - o Focus on BSC estimation method, accuracy, precision
 - o Continues discussion on potential publication

SS – Sound Speed WG Summary

- Worked with phantom WG – specification 1450m/s – 1625 m/s in vivo
- Literature review tracking sheet completed
- Next Steps
 - o Execute literature review and complete review forms
 - o Specific goal the WG would like to aim to when we start with round robin study
- AS suggests considering acquisition parameter set up – transducer and center frequency, number of measurements

TS – Phantom WG Summary

- Set of 6 phantoms, each homogeneous
- Standard CIRS or Sun Nuclear size (about 20x8x15 cm)
- Characterized phantom window
- Phantoms A –E (Normal to severe, D/E used for limited analysis of cofounding factors)
- Frequency range: 1-10 MHz
- Speed of sound: 1480-1600 m/s
- Attenuation: slope between 0.5, 0.8 and 1.1 dB/cm/MHz at 3.5 MHz
- Backscatter – more complicated; initial phantoms to use microbeads for scattering
- Ongoing –
 - o Resolve BSC parameter values
 - o Using a single reference phantom effectively
 - o Work towards a liver mimic utilizing fat droplets in future studies

IRM – Reviewed Summary of responses to Institutional Information Survey – posted to Basecamp