QIBA Ultrasound Shear Wave Speed (SWS): System Dependencies Task Force

Friday, July 01, 2016; 11 AM CT Notes provided by Dr. Palmeri

In attendance RSNA

Mark Palmeri, MD, PhD (Co-Chair) Keith Wear, PhD (Co-Chair) Paul Carson, PhD Jun Chen, PhD Richard Ehman, MD Steven Fick, PhD Al Gee Tim Hall, PhD Kathy Nightingale, PhD

Marijean Trew Theresa Tuthill, PhD Matthew Urban, PhD Michael Wang, PhD

Stephen Rosenzweig, PhD

Joe Koudelik Julie Lisiecki

Moderator: Dr. Palmeri

Mathieu Couade, PhD

International Tissue Elasticity Conference (ITEC), Oct 16-19, 2016

- Dr. Dhyani will be presenting updates on the QIBA clinical work and the Profile.
- Dr. Hall will present some of the technical content (phantom analysis).
- There may be a presentation by industry representatives.

Simulation of Phase Aberration & Shear Wave Propagation in Viscoelastic Media Presentation by Dr. Urban

- Dr. Urban presented on the impact of phase aberration on shear wave tracking.
 - His slides are available here
- The overall conclusions were:
 - o Group velocity could still be reconstructed in the presence of "reasonable" aberration.
 - o Bandwidth decreased as a function of phase aberration.

Latest MRE Measurements on Phantoms

Presentation by Dr. Jun Chen

- Dr. Chen presented on the latest MRE phantom measurements.
- Overall:
 - o MRE and ultrasound agreed well, especially at high frequency.
 - Phase velocity comparisons at 160 Hz showed a slight positive bias in US systems compared to MRE
- Discussion about choosing 140 Hz as a good common comparison point b/w MRE and US, especially since 140 Hz could be used by MRE in vivo in the future

JULY US WebEx / Conference Schedule

July WebEx:

• July 08: Clinical Task Force

• **July 15**: US SWS BC

July 22: Date change to July 29: CEUS BC

Conferences/ Meetings:

 July 31 – Aug 4: American Association of Physicists in Medicine (AAPM), (Washington, DC)