

## QIBA Ultrasound Shear Wave Speed (SWS) Technical Committee

Monday, July 15, 2013; 1 PM CT

### Call Summary

#### In attendance

Timothy J. Hall, PhD (Co-Chair)

Andy Milkowski, MS (Co-Chair)

Michael Andre, PhD

Tharakeswara K. Bathala, MBBS, MD

Paul Carson, PhD

Huan Wee Chan

Shigao Chen, PhD

Claude Cohen-Bacrie, MS

David Cosgrove, MD

Richard L. Ehman, MD

Steven E. Fick, PhD

Ted Lynch, PhD

Stephen McAleavey, PhD

Kathy Nightingale, PhD

Mark Palmeri, MD, PhD

Nicolas Rognin, MSc, PhD

Laurent Sandrin, PhD

Cedric Schmitt, PhD

Daniel C. Sullivan, MD

Keith Wear, PhD

#### RSNA

Fiona Miller

Joe Koudelik

Madeleine McCoy

**Moderator:** Dr. Hall

**Agenda:** Monday, July 15, 2013; 1 PM CT

1. Review of previous call summary
2. NIBIB subcontract funding requests
  - a. Prioritization of requests
3. IEEE International Ultrasonics Symposium poster
  - a. Reporting Phase 1 Phantom Study results
    - i. List of coauthors (see below)
    - ii. Independent DMA on test samples
    - iii. Imaging system results to report

**Next call: Friday, 8/09/2013** - QIBA US SWS Technical Committee , 11 am CT (Dr. Garra)

#### Discussion

Summary from June 7, 2013 Tech Ctte t-con was approved as written

Three proposed projects were discussed for tentative Round-3 funding (projects were prioritized as listed below)

##### 1. Phase 2 phantom study with inelastic, SWS-dispersive media

- Additional phantoms to be produced and shipped to various sites for perpendicular surface scanning to better assess variability across phantoms as identified in Phase I
- Statistical support suggested to help design project and analyze data
- Dr Hall to update project proposal with line item and budget for statistician

##### 2. Numerical simulation of shear wave speed measurements in the liver

- Goal is to couple acoustic and mechanical simulation to identify SWS media dependencies
- Value in getting vendors and institutions working together to obtain same output answers
- Common datasets for use by both vendors and researchers expected in 9-10 months

##### 3. A pilot study of the effects of Steatosis and inflammation of shear wave speed for the estimation of liver fibrosis staging in patients with diffuse liver disease

- A multivariate analysis, human subject study, augmented with statistical support (Dr Samir to clarify whether statistical support is available from Johns Hopkins or Mass General Hospital)
- Goal is to identify potential sources of biological variability and any associated confounding factors re: SWS measurements
- Project to help determine what performance parameters are required in a clinical protocol
- Setting project milestones discussed based on natural break points

IEEE International Ultrasonics Symposium (July 21-25, 2013, Prague, Czech Republic)

- Dr Hall discussed his poster presentation based on Phase I phantom study results; feedback welcome

**Subcommittee Updates:** Detailed project updates may be found on each subcommittee's page: [QIBA wiki](#)