

**Inaugural Call**  
**QIBA Ultrasound Shear Wave Speed (SWS) Technical Committee**  
Thursday, April 18, 2012; 11 AM CT  
Call Summary

**In attendance**

**Brian Garra, MD (Co-Chair)**

**Timothy Hall, PhD (Co-Chair)**

**Andrew Milkowski, MS (Co-Chair)**

Kaisar Alam, PhD

Michael Andre, PhD

John Benson

Paul L. Carson, PhD, QIBA Sci. Coord.

Shigao Chen, PhD

Ron Daigle, PhD

Liexiang Fan

Barry Goldberg, MD

Mark Holland, PhD

Ken Hoyt, PhD

Andrej Lyshchik, MD, PhD

Steve Metz, PhD

Dai Morita, MS

Thomas Nelson, PhD

Kathy Nightingale, PhD

Adrian Nunn, PhD

Mark Palmeri, PhD

Kevin Parker, PhD

Nicolas Rognin, MSc, PhD

Jonathan Rubin, MD, PhD

Laurent Sandrin, PhD

Mark Schafer, PhD

Gale Sisney, MD

Daniel Sullivan, MD

Arun K. Thittai, PhD

Kai E. Thomenius, PhD

Tommy Varghese, PhD

Keith Wear, PhD

Clark Zhe Wu, PhD

Hua Xie, PhD

Zhi Yang, PhD

Jim Zagzebski, PhD

**RSNA**

Linda Bresolin, PhD, MBA, CAE

Fiona Miller

Joe Koudelik

Julie Lisiecki

**Agenda**

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**Topics for conversation**

- 1) Committee leadership
- 2) Organization structure and support infrastructure
- 3) Committee membership
- 4) Goals
  - a) Accepted "first task" is shear wave speed for liver fibrosis assessment
    - (1) What needs to be done to establish this as a "biomarker"?
  - b) Should the approach be broadened beyond liver fibrosis?
    - (1) Should we design our efforts in a way to efficiently expand the list of biomarkers based on shear wave speed estimates?
- 5) Levels of changes in commercial systems to achieve various levels of cross-platform reproducibility and consistency with reference standards.
- 6) Expectations and timeframe

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## Introduction

- Dr. Carson welcomed everyone to this inaugural call of the newly formed technical committee, QIBA Ultrasound Shear Wave Speed (US SWS)
- The three committee co-chairs were introduced
  - Brian Garra, MD, Washington DC VA Medical Center/FDA
  - Timothy Hall, PhD, University of Wisconsin
  - Andrew Milkowski, MS, Siemens

**Purpose of the Group:** To plan an effort by the biomedical ultrasound community to create and support implementation of a QIBA Profile for a quantitative biomarker in ultrasound imaging. Shear Wave Speed was selected as the qualifying biomarker at a planning meeting held at AIUM on March 29, 2012, and planning efforts continue.

## Presentations from the QIBA Ultrasound Biomarker Planning Meeting are on the [QIBA wiki](#)

- The publicly accessible QIBA wiki also contains reference materials for other QIBA groups, including templates for protocols and draft Profiles currently in the public comment or working phases for reference

## Discussion of Research Possibilities for the Group to Pursue

- The group debated the possibility of pursuing biomarkers in the following order:
  - Liver fibrosis
  - Breast
  - Prostate
- These could be investigated in parallel or serially; however, it was suggested that using liver fibrosis as an initial starting point might be the ideal route

The co-chairs have created a suggested list of four subcommittees that might be formed to handle the needed work:

## Proposed US SWS Subcommittees

1. **SWS Ultrasound System Dependencies:** Identification; Characterization; Mitigation
2. **Phantom and System Measurement Testing:** Usability of Existing Phantoms; Phantom Testing for Stability or Stability standards; Standard Methods for Measurement Testing and Reporting of Test Results (Accuracy, repeatability, reproducibility); Advanced Phantom Design & Development to better mimic tissues.
3. **SWS Clinical application:** Ease of use; Populations where measurement is feasible and valid; Standard acquisition method; Populations where measurement may not be valid; Other confounding pathologies; problems with gold standard comparisons; alternate gold standards for use in validation.
4. **SWS Reporting and Results Transmission:** What results to report; DICOM structure for reporting; On Screen Results Display; Research results export format.

## Next steps:

- Subsequent Doodle Poll to be sent to group to determine regular standing call

**Next call:** Friday, May 4, 2012 at 11:00 AM CDT