

QIBA US SWS System Dependencies and Phantom Task Force

Friday, January 16, 2015

Call Agenda and Notes proved by Dr. Palmeri

In attendance

Mark Palmeri, MD, PhD (Co-Chair)	David Cosgrove, MD	Kathy Nightingale, PhD	Joe Koudelik
Keith Wear, PhD (Co-Chair)	Steven Fick, PhD	Stephen Rosenzweig, PhD	Julie Lisiecki
Paul Carson, PhD	Timothy J. Hall, PhD	Daniel Sullivan, MD	
Jun Chen, PhD	Mike MacDonald, PhD	Matthew Urban, PhD	
Shigao Chen, PhD	Yasuo Miyajima, MS	Hua Xie, PhD	

RSNA

US Coordinating Committee Call / Restructuring

- AIUM meeting being planned for discussion: INSERT URL HERE

Phase I Data Analysis Update

- “Master” data spreadsheet:
<https://drive.google.com/folderview?id=0B9z0kjHOIYA4fjRjCwJMVV9fMDIJZ2pnZkIGVENMSHlpVTE5MS01R2ZmeGVMakiYSDRIUGc&usp=sharing>
- Duke statisticians replicating analysis / recommending additional analyses
- Tim and Andy to handle preparation of full-length manuscript w/ target submission to Radiology

Phase II Phantom Study Update

- Data collection spreadsheet
 - https://docs.google.com/spreadsheets/d/130ZiY4VCa5zSZoCtaOMfKjsYFISkEQwcKuvQbucc_mo/edit?usp=sharing (thanks Shigao, Kathy, Ned, Keith and Brian)
 - Note fields of ROI height and width w/ recommended standardized sizes (when possible)
 - Break out ROI by measurement depth?
 - Largest available if user-dependent?
 - Elevation focus an additional collection if it does not coincide with the 3, 4.5 or 7 cm depths
- Paul Carson shared directory to collect data
 - Invitation will be sent to each site through UM Box
- Duke statisticians to analyze data and Duke to compile work
- What site currently has the phantoms?
 - Set 1 - UWM (GE to measure too)
 - Set 2 - Siemens

Industry Digital Phantom Update

- https://docs.google.com/document/d/1JruRIwKpeOU9cRxIHmTmmTR98Y_3oeT3i99ouEPov6w/edit?usp=sharing
 - Need point people for Philips and FibroScan
 - Will post a data collection spreadsheet based on agreed upon configurations below.
 - Data to be hosted on QIDW or Box, depending on size
 - PowerPoint with screenshots describing the data and how to access / work with it will be linked from the Google Doc (Mark)
 - Will schedule call after everyone has a chance to access the data using this PowerPoint
- Elastic datasets to upload
 - Gaussian excitation focused at single focal depth for 5 different stiffnesses
 - Fixed elevation focus curvilinear array excitation at 3 focal depths (Phase I) study
 - 5 different stiffnesses (pure FEM displacement)

- 20 simulated speckle realizations of each displacement field
- **USEFUL PARAMETER SET**
 - **ARF Excitation**
 - Curvilinear probe
 - Radius of curvature
 - Element Height
 - Element Pitch & Kerf
 - Center Freq
 - Frac. Bandwidth
 - Elevation Focus: 45 mm
 - Frequency: 2 MHz
 - Focal depths: [3, 4.5, 7] cm
 - F/#: [2, 2, 2]
 - Excitation Duration: [200 us, 200 us, 200 us]
 - Viscoelastic datasets
 - Hold off on configurations until after elastic data are analyzed
 - To combine with funded simulation effort and configurations that are targeted to share (Duke, Mayo, Michigan Tech, Rochester)

Upcoming Calls for QIBA Ultrasound, Fridays, 11 am CT:

- 1/23/2015: Ultrasound SWS Biomarker Ctte* (Dr. Garra)
- 1/30/2015: Ultrasound SWS Clinical Task Force* (Dr. Samir)

***Note:** Name changes due to in-progress QIBA organizational restructuring. Thank you.