

# Pharma Imaging Network for Therapeutics and Diagnostics (PINTAD)

## MEETING SUMMARY

<b>MEETING SUBJECT:</b>	<b>PINTAD 2014 Telecon</b>
<b>DATE / TIME:</b>	<b>30MAY14 / 11:00 AM EST</b>
<b>PREPARED BY:</b>	<b>Barbara Chandler, Annette Schmid</b>
<b>LOCATION:</b>	<b>Teleconference</b>

### DISCUSSION POINTS:

1	<p>From our QIBA efforts series:</p> <p>Dr. Anthony Samir (MGH): QIBA US activities</p> <p>Clinical Director of MGH/MIT Center for Ultrasound Research &amp; Translation</p> <ol style="list-style-type: none"><li>1) Information about QIBA and its aims</li><li>2) Ultrasound biomarker – focus on sheer wave speed velocity (SWS) in liver tissue</li><li>3) Activities to bring the biomarker into format</li></ol> <p>The premise is to reduce variability in radiology to extract objective, quantitative data from scans. Quantitation reduces variability. A more quantitative approach can be used in clinical trials.</p> <p>The QIBA mission is to improve value and practicality of quantitative biomarkers by reducing variability across devices, patients and time. Ultrasound is the ideal modality but it suffers from variability.</p> <p>The QIBA effort started in 2007. Ultrasound was selected as a biomarker.</p> <p>Dr. Samir discussed tissue SWS and elastography (measuring the mechanical characteristics of tissue, eg, stress/strain) as it relates to chronic liver disease. Diseased tissue is different in physical properties than healthy tissue. Progressive cirrhosis correlates to liver stiffness.</p> <p>Steps in estimation of elastic modulus in SW sonoelastography:</p> <ul style="list-style-type: none"><li>• The harder the tissue the faster the sheer wave propagates</li><li>• Track sheer wave speed</li><li>• Advanced technique combining real time imaging with true quantitation</li></ul> <p>QIBA US activities:</p> <ul style="list-style-type: none"><li>• Technical and clinical subcommittees looking at sources of variability originating within the equipment chain</li><li>• Focus on variability within clinical data acquisition and interpretation</li><li>• Phantom construction</li><li>• Simulations</li><li>• Clinical guidelines</li><li>• UPICT protocol (image acquisition)</li><li>• QIDW (quantitative imaging data warehouse)</li></ul> <p>Questions:</p> <ul style="list-style-type: none"><li>• How commonly is SWS technique used?<ul style="list-style-type: none"><li>○ Dr. Samir's opinion stated with confidence is that US elastography will be widely used. Liver disease is common and found everywhere.</li></ul></li></ul>
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	<ul style="list-style-type: none"><li>○ Cost is low.</li><li>○ Pathology is thought to be the gold standard but is very variable.</li><li>○ Liver fibrosis is a heterogeneous disease but can affect different parts of the liver differently. From imaging you can obtain multiple measurements in the liver (~10 measurements in 5 minutes) versus the sampling problems from biopsy.</li><li>▪ Is elastography reimbursable?<ul style="list-style-type: none"><li>○ It will require new, additional equipment, comparable to a general radiology system.</li><li>○ The transducer is the same.</li></ul></li></ul>
2	<p>The following point on the agenda was not discussed on 30MAY14 due to lack of time but will be discussed at the next meeting:</p> <p>Reader Variability/ Secondary Reads- a thing of the past?</p> <p>Future QIBA presentations at PINTAD may include PET and volumetrics.</p>
3	<p><b>Next meeting</b> Friday, 27JUN14 11:00 am ET</p>