QIBA Q-CT Weekly Update
Monday, December 06, 2010 at 11 am CST
Call Summary

In attendance
Andrew J. Buckler, MS (QIBA Program
Director)
P. David Mozley, MD (Co-chair)
Maria Athelogou, MD
Sung Chang, PhD
Heidrun Endt
Charles Fenimore, PhD
Kavita Garg, MD
David Gustafson, PhD
Philip Judy, PhD

Hyun Grace Kim, PhD
Michael McNitt-Gray, PhD
James Mulshine, MD
Kevin O'Donnell
Anthony Reeves, PhD
Daniel Sullivan, MD
Ying Tang, PhD
David Vining, MD
Hiro Yoshida, PhD

RSNA
Fiona Miller
Joe Koudelik

Overview of Recent QI/IB Activities (Mr Buckler)
- QI/IB Special Focus Session held at RSNA 2010 in efforts to build momentum; standing room only (220+) demonstrated the interest for continued quantitative imaging efforts
- Corporate visits with device and software manufacturers have begun
  - Dynamic range of discussion encompasses engineers/scientists, physicists and management
  - Planning site visits to Toshiba, Siemens and Philips

Process Map (Dr Mozley)
- Need clear goals for QIBA in terms of qualifying Volumetric CT as a biomarker
- QIBA/NIBIB funding to help bridge any knowledge gaps in the process;
  - project proposal process has begun with many proposals received
- Spiral Roadmap from Sept 2009 based on a large and diverse group of stakeholders need to converge on a mission still applicable

Profile (Mr Buckler)
- Version 2 of Profile is end goal
- Extension from Lung to Whole Body proposed; as well as solid tumors of other body regions
- Groundwork needed in efforts to work together and produce a product
- Studies of accuracy and precision of measurements with physical objects need to be characterized

Specific Questions from FDA Biomarker Qualification Review Team (Dr Tang)
- Plan needed to proceed with biomarker qualification
- List of highlighted FDA question discussed
- Dr Tang highlighted bullet points to be addressed in the VolCT Profile (Claims 1-6)

NIBIB Funding Proposals
- Questions from the above drivers (not yet prioritized):
  1) Support or inform the specifications of Claim 4 (via groundwork: Impact of various acquisition parameters on reproducibility of measurements
     a) Inter- and intra-observer variability in VIA. How consistent are the results?.
     b) For CT, this might include system type, vendor, collimation, pitch, dose, FOV, recon kernel, recon slice thickness, etc. This should also consider spiral vs. nonspiral CT, contrast use, etc.)
     c) protocol
  2) comparison to current response criteria (RECIST, WHO, etc)
  3) correlation coefficient to clinical endpoints
  4) Replace – or "just" augment – SLD and WHO?
  5) Algorithm characteristics not yet modeled enough to support Claim 6 (Claim language still needs drafting (accuracy and speed trade-off, automated and semi-automated)
  6) Apply DICOM SR to this model
  7) AIM standard being proposed from caBIG program
- Need to map questions to NIBIB task list (19 items)
- Prioritization needed; all feedback due before Dec 16th

Next steps:
- Prioritize list (1-7) next week
- Next call scheduled for Monday, Dec 13, at 11 am CST