

**QIBA fMRI Committee**  
Wednesday, December 16, 2009  
9 AM CST

Call Summary

**In attendance:**

Gudrun Zahlmann, PhD  
Travis Allen  
Andrew Buckler, MS  
Geoffrey Clarke, PhD  
Edgar DeYoe, PhD  
Cathy Elsinger, PhD  
Edward Jackson, PhD

Daniel C. Sullivan, MD  
Douglas M. Tucker, PhD, MBA

**RSNA**

Fiona Miller  
Susan Anderson, MLS  
Joe Koudelik

**Introduction (Drs Sullivan and Zahlmann)**

- Dr Sullivan introduced himself as a radiologist at Duke University and the RSNA Science Advisor
- Discussion of criteria for adding new biomarkers to QIBA efforts; fMRI has advantage of maturity and track record as well as dedicated volunteers
- QIBA has activities at all levels of maturity on path through development and optimization to application in studies to validation, qualification, acceptance and reimbursement in clinical practice
- Goal is to establish a valuable biomarker which will benefit clinical care and push the imaging field forward; fMRI's clinical studies will be useful
- QIBA needs to know fMRI group's plans for the future to better apply the QIBA processes (e.g. experience, established framework, etc)

**Introduction (Dr Elsinger)**

- Dr Elsinger has explored fMRI in context of assessment of CNS diseases and assessing feasibility of using fMRI as an outcome measure in clinical trials
- At NordicNeuroLab, exploring growth in pre-surgical mapping as clinical application for fMRI; developed clinical stimulation paradigm used for pre-operative evaluation with results exported to neuronavigation suite
- Vendors supply clinical stimulation paradigms for use with different scanner platforms and stimulus presentation hardware; there is also variability in timing parameters and stimuli used
- No best-practice standards or guidelines have emerged; goal is to develop a process/criteria to evaluate and validate integrity of stimulation paradigms
- Once process/criteria is developed, can be applied outside pre-surgical mapping to other paradigms, e.g. clinical trials, evaluation and diagnosis of disease, better patient care in general

**QIBA process**

- QIBA has worked on an open membership format with anyone interested encouraged to participate; would like to have representation from a variety of stakeholders such as ASNR, Human Brain Mapping, BIRN, clinicians, physicists and basic scientists
- RSNA staff provides administrative support; Dr Sullivan provides continuity and is liaison to RSNA Board of Directors
- Interested participants may contact Joe Koudelik, RSNA, directly ([jkoudelik@rsna.org](mailto:jkoudelik@rsna.org))
- Steps:
  - Identify 2-3 co-chairs; Dr Elsinger will take lead as primary co-chair
  - QIBA wiki (<http://qibawiki.rsna.org/>) is used to post and review work
  - Consider bi-weekly call schedule, alternating with DCE-MRI committee
- Profile activities:
  - Step 1: Claims/set clinical context; consider drafting an initial sentence to articulate Claims
  - Step 2: understand performance measures and how to know when goal is achieved (may be technological, financial, etc)
  - Step 3: define experimental groundwork to prove performance specified to realized the Claim
  - Some groups need to characterize performance first; other groups have base of work and proceed to optimization (a tech and engineering activity)

- Identify gaps in performance and level of optimization
- Stakeholders can articulate their interests, e.g. regulatory, reimbursement, standard of clinical care

**Next Steps:**

- Identify co-chairs; Dr Elsinger will take lead as primary co-chair
- Interested participants may contact Joe Koudelik, RSNA ([jkoudelik@rsna.org](mailto:jkoudelik@rsna.org))
- Drs Zahlmann and Barboriak will send contact names to Dr Elsinger
- Next call: January 13<sup>th</sup>, 2010 at 11 am CST