

QIBA Perfusion, Diffusion and Flow – MRI Biomarker Committee (BC) Update Call

Wednesday, March 16, 2016 at 11 AM (CDT)

Call Summary

Participants

John Kirsch, PhD (Co-Chair)

Mark Rosen, MD, PhD (Co-Chair)

Harsh Agarwal, PhD

David Bennett, PhD

Mark Brown, PhD

Thomas Chenevert, PhD

Timothy Dondlinger

Bradley Erickson, MD, PhD

Daniel Gembris, PhD

Edward Jackson, PhD

Daniel Krainak, PhD

Chen Lin, PhD

Dariya Malyarenko, PhD

Elizabeth Mirowski, PhD

Nancy Obuchowski, PhD

David Purdy, PhD

Kathleen Schmainda, PhD

Mark Shiroishi, MD

Ying Tang, PhD

Brian Taylor, PhD

Ona Wu, PhD

Junqian (Gordon) Xu, PhD

Gudrun Zahlmann, PhD

Yuxiang Zhou, PhD

RSNA

Joe Koudelik

Susan Weinmann

Moderator: Dr. Rosen

Round 6 Proposals (Dr. Rosen, et al.)

- When defining the scope of each project, PIs need to take into account that funding is for only a one-year period
- DCE-TF B1 Phantom/Mapping Project
 - The need for a B1 phantom was identified for assessing cross-vendor B1 mapping techniques
 - PI(s) with a plan to move forward are needed for this project
 - Ultimate goal of this B1 project
 - Develop a phantom reflective of true anatomy
 - B1 correction of T1 maps
 - Two considerations for comparison of cross-vendor techniques for B1 mapping are algorithms and maps
 - The Profiles of other QIBA groups may benefit from this information on B1 mapping
 - Information resulting from this project will be incorporated into the DCE Profile v2.0
 - B1 phantom to contain anatomically relevant dimensions and features (e.g. can we model air/bone interfaces) and the possibility of B1 and T1 measurement in a single phantom
 - The initial step will be to evaluate the potential to modify the existing DCE phantom (created in Round 1 by Dr. Jackson) to meet the needs for B1 measurement
 - Dr. Jackson is looking into the potential reuse of existing phantoms and offered to provide assistance to PIs on this project
 - Dr. Coolens & Mr. Bosca have also been discussing possibilities of using an existing phantom and repurposing it for this B1 mapping project
- Cross-modality Systematic Literature Review Process (Dr Wu):
 - Systematic literature reviews have been initiated by both DCE and DSC TFs and leaders plan to author a paper about their process
 - This project may be presented as a cross-modality proposal
 - Drs. Wu and Laue (project PIs) will discuss use of software that would make their efforts sustainable beyond one year of funding
- DSC-focused DRO (Dr Erickson):
 - Although Dr Erickson has submitted a RO1 to pursue a superset project, an opportunity exists to collect and organize data on a dedicated website making the DSC-DRO data a useful research reference
 - This would be a data/image registry-type project, not necessarily advancing the science
 - A DSC DRO project of any type would be helpful in moving the DSC Profile forward
 - PIs on this project would be Dr. Erickson and a medical physicist colleague of his

- DSC Phantom (Dr. Xu):
 - Dr. Xu proposed a 4th possible Round-6 proposal to create a phantom to analyze gradient nonlinearity contributions to ADC maps in DWI
 - This is somewhat similar to Dr. Chenevert's current RO1, but Modus already has a phantom for this purpose

- The Round-6 submission process was outlined:
 - The proposal deadline is 4/15 (proposal form and budget sheet to be completed)
 - Because QIBA has continued to grow, the funding process may be more competitive
 - Project ideas should be solidified and the scope of each project should be defined by the next PDF-MRI call on March 30
 - Projects are to be submitted to BC leaders for input and feedback asap (March/early April)
 - Projects then move forward to CCs for review
 - Each CC reviews proposals and sends questions to PIs
 - Where required, PIs revise and re-submit proposals to CCs
 - Projects will be reviewed at the next bi-annual Cross-modality CC Leadership call in June
 - CC prioritization of all projects with recommendations will be presented to the Steering Committee for final consideration

Agenda Items Tabled until Next Call:

- Round-5 Updates
- B1 Correction – DCE TF Vendor Survey
- ECOG-ACRIN/QIN Project

Next PDF-MRI Biomarker Committee Call: March 30, 2016 at 11 AM CDT