

QIBA PET Myocardial Blood Flow (MBF) Biomarker Committee (BC)

Monday, September 26, 2022, at 9 am CT

Call Summary

In attendance

Rob deKemp, PhD (Co-Chair)
Jonathan B. Moody, PhD (Co-Chair)
Martin Lodge, PhD
Nancy Obuchowski, PhD

RSNA Staff

Julie Lisiecki

Moderator: *Dr. Moody*

The following topics were discussed:

- Handling of systematic, MBF, and MFR bias in the Profile claim
- Profile claims based on tracers
- Overview of section 3 of the Profile (activities and actors)
- Proposed Digital Reference Object (DRO) for testing

Decisions / Action items:

- Prognostic data is published using flow reserve and flow capacity
- Need to ask whether bias is constant or proportional and to look for linearity and magnitude changes
- [Dr. deKemp](#) to craft a bias table and review the linearity plot, looking at K^1 vs. flow values
 - MFR Bias is mostly addressed by taking the ratio of stress and MBF
 - Age and gender are additional factors that should be considered related to flow
- Guidance needed from clinical colleagues regarding the importance of absolute flow at rest and stress, or whether it's the ratio that is most relevant, as well as ammonia and water values
- DRO draft has been created using RFIT (Fortran-based with Python wrapper for rank-based fitting of linear models)
 - This is a physiological model with three components and three compartments for rubidium
- [Dr. Moody](#) to distribute Gould article and share RFIT manual

Colleagues to invite to BC (Please provide credentials and emails to RSNA staff):

- Ian Armstrong
- John Prior
- Hans Harms
- Sergey Nesterov

Ongoing action items:

- [Dr. deKemp](#) and [Dr. Lodge](#) to review materials provided by [Dr. Moody](#) regarding GitHub and [Manubot](#)
- [Dr. Moody](#) to work on a DRO model; will look at QIBA work with DCE-MRI
- Review needed for 3.3 Product Validation, 3.4 Periodic QA, and 3.7 Pharmaceutical Administration
- Dynamic phantom scan protocol in Section 4 Assessment Procedures to be fine-tuned by [Dr. Moody](#)

Next Calls: [October 10](#) and [24, 2022](#), at 9 am CT (2nd and 4th Mondays) at 9 am CT

Parties interested in joining the [QIBA LinkedIn](#) page for QIBA updates should visit: <https://www.linkedin.com/company/rsna-qiba>

Process Committee

- **QIBA Process Committee Leaders:** [Kevin O'Donnell, MASc](#) (Chair) | [Michael Boss, PhD](#) (Co-Chair) <mailto:mboss@acr.org>
- **Wiki Resources:** [Dashboard](#) | [Profiles](#) | [QIBA Profile template](#) | [http://qibawiki.rsna.org/index.php/QIBA_Profile_TemplateHow to Write a QIBA Profile](http://qibawiki.rsna.org/index.php/QIBA_Profile_TemplateHow_to_Write_a_QIBA_Profile) | [http://qibawiki.rsna.org/index.php/How to Write a ProfileClaim Guidance](http://qibawiki.rsna.org/index.php/How_to_Write_a_ProfileClaim_Guidance)
- **Inventory of QIBA tools:** [QIBA LinkedIn page](#) (please join / follow) | [QIBA News](#) | [QIBA Community](#)
- **Other:** [QIBA Webpage](#) | [QIBA Wiki](#) | [QIBA Biomarker Committees](#) | [QIBA Organization Chart](#) | [Dropbox](#)
- **EndNote:** To obtain access to the RSNA EndNote citations, please email: sstanfa@rsna.org.