Practical Tricks for Contrast Enhanced Whole-Heart Coronary MRA at 3.0T

Purpose
This education exhibit will provide an overview of the role of 3.0T contrast enhanced whole-heart coronary MRA for diagnosis and evaluation of cardiac disease. This course will also provide practical tricks as well as insight into new techniques for coronary MRA.

Outline of Content
1. Technical considerations and advanced methods in CMRA
   - Motion Compensation
   - Contrast between Blood and Surrounding Tissue
   - Whole-Heart CMRA
   - Advantages and Disadvantages of High Field Coronary Imaging
   - Methods of Contrast Agents Administration for CMRA
2. Clinical Applications of Whole Heart CMRA
3. Advanced Methods In CMRA
4. Practical Recommendations for Whole-Heart Coronary MRA at 3.0T
   - Patient Training
   - Vector Electrocardiogram at 3T
   - Contrast Injection
   - Survey Scanning

Summary
3.0T contrast enhanced Whole-Heart coronary MRA permits a major step forward for the clinical use of CMRA. The use of blood-pool contrast agent might open the door to further improve the diagnostic accuracy of contrast enhanced CMRA at 3.0T. The combination of CMRA with tissue perfusion and viability provides a comprehensive assessment of the patient with known or suspected CAD.