LIPS 5, Challenges in MBF quantification, cardiovascular + physics committee
Monday, September 11, 8:00 – 9:30

Session Title
Challenges in MBF quantification with PET and SPECT

Chairpersons
Laetitia Imbert (Nancy, France)
Cecilia Hindorf (Stockholm, Sweden)

08:00 - 08:20   Ian Armstrong (Manchester, UK): Patient motion and data-driven motion correction.
08:20 - 08:40   Laetitia Imbert (Nancy, France): SPECT: is there anybody out there?
08:40 - 09:00   Mark Lubberink (Uppsala, Sweden): Accuracy of MBF estimates and cut-off values.
09:00 - 09:20   Ibrahim Danad (Utrecht/Amsterdam, Netherlands): Challenges of using quantification in clinical practise.

Educational Objectives
1. To understand the general limitations on quantitative accuracy of MBF with implications for cut-off values and achievable sensitivity and specificity in clinical trials
2. To understand challenges and emerging solutions associated with patient motion in dynamic cardiac PET
3. To understand the challenges of implementing quantifications in a routine clinical workflow
4. To understand the possibilities and limitations of using SPECT for quantification of cardiac function

Summary
Interest in quantitative myocardial blood flow imaging with PET is rapidly increasing, with PET finding its way in routine clinical assessment of ischemia. This LIPS session will address challenges associated with quantification of MBF with both PET and SPECT, in terms of tracers, patient motion, accuracy of cut-off values, and implementation in routine clinical workflow.

Key Words
PET, SPECT, quantification, MBF, cardiac