Joint Symposium 21 (Translational Molecular Imaging & Therapy / AHA)
Tuesday, October 16, 14:30-16:00

Session Title
Imaging Early Remodelling in Cardiomyopathies - From Preclinical to Clinical

Chairpersons
Frank M. Bengel (Hanover)
Michael Salerno (AHA, Charlottesville)

Programme

14:30 - 14:50	Michael Salerno (AHA, Charlottesville): Clinical Challenges in Cardiomyopathies
14:50 - 15:10	Antti Saraste (Turku): New Concepts, New Targets
15:10 - 15:30	Federico Caobelli (Basel): Imaging Perfusion, Metabolism and Innervation
15:30 - 15.50	James T. Thackeray (Hanover): New Imaging Approaches in Cardiomyopathies
15:50 - 16:00	Round Table – Final Discussion

Educational Objectives
- To learn the clinical perspective in cardiomyopathies
- To learn the state- of-the-art of molecular imaging in cardiovascular diseases
- To get acquainted of the most recent advances in pre-clinical cardiovascular imaging
- To provide a multidisciplinary discussion providing perspective on the design and execution of molecular imaging research in cardiovascular disease.

Summary
While advances in revascularization and medical therapy have lowered mortality rates after acute myocardial infarction, patients bear higher risk to develop heart failure. As such, advancing cardiovascular disease remains a significant burden on the health care system. Novel strategies to attenuate ventricular remodeling can alleviate the progression of terminal heart failure, but conventional diagnostic tests are often insufficient to identify patients who will most benefit from targeted intervention or to monitor therapeutic efficacy. This represents a significant challenge for the characterization of novel targeted drugs that may be costlier and more personalized than standard medical care. Molecular imaging offers a non-invasive means to evaluate physiologic parameters that may predict ventricular remodeling and progressive heart failure.
Development of novel and specific therapies to support endogenous healing may be aided by targeted imaging agents, which provide not only a surrogate indicator of therapeutic efficacy, but also identify the appropriate targeting and timing of optimal treatment. Common targets for imaging and therapies may also introduce a new paradigm in clinical evaluation, where imaging endpoints may serve as ancillary indicators of therapeutic success or failure in clinical trials. This approach may also assist in the selection of appropriate patient populations for a specific intervention, working toward personalized precision medicine.
This session will address evolving approaches for molecular imaging in progressive heart failure and cardiomyopathy from a multidisciplinary point of view, wherein different professionals (i.e. clinical cardiologists, clinical imaging experts and preclinical scientists) will discuss the state-of-the-art and provide perspective on the design and execution of molecular imaging research in cardiovascular disease.

Key Words
Cardiomyopathies, Cardiovascular molecular imaging, Molecular targets in cardiomyopathies, Cardiovascular research