

Institute for Regenerative Medicine (IREM) in collaboration with  
Wyss Translational Center Zurich (Wyss Zurich), Regenerative  
Medicine Technologies Platform

## Interdisciplinary Colloquium Regenerative Medicine I

**Tuesday, 27 Sept 2016 at 12:30 – 1:30 pm,  
Kleiner Hörsaal OST,  
University Hospital Zurich**

**Prof. Philipp A. Kaufmann**

**Dept. of Nuclear Medicine, USZ**

### Molecular Cardiac Imaging

Recent data using nuclear myocardial perfusion imaging and CT suggest that hybrid imaging provides added diagnostic clinical value beyond that of either technique alone or that of side-by-side analysis. The value of non-invasive hybrid imaging lies far beyond the simple addition of a further diagnostic test as it allows accurate spatial association of perfusion defects to their subtending coronary stenoses providing key information for evidence driven intervention targeting relevant lesion only. While a negative coronary computerized tomography angiography (CCTA) has high negative predictive value to rule out relevant coronary artery disease (CAD), an abnormal CCTA – like an abnormal conventional angiography study - is a poor predictor of ischemia, and further perfusion imaging testing is mandatory for decision-making towards revascularization. Conversely, a normal MPI result does not exclude the presence of subclinical CAD requiring risk modification. The incongruence of CCTA and MPI is inherent to the duality of morphologic versus functional testing. However, no matter how accurate CCTA will possibly get with future advances in technology, the two pieces of information obtained with MPI versus morphology are difficult to compare, as they are complementary.

Hybrid images offer superior diagnostic information with regard to identification of the culprit vessel with the hemodynamic relevant lesion providing added diagnostic information not obtained on side-by-side analysis. Latest guidelines of the European Society of Cardiology on the management of stable coronary artery disease have now endorsed cardiac hybrid imaging.

**Organiser:** Prof. Dr. Dr. Simon P. Hoerstrup

**Execution/Chair:** Dr. Steffen M. Zeisberger

IREM & Wyss Zurich, Univ. of Zurich and ETH Zurich