Focus of research group (I)

Name PI: Prof Jan J. Piek
Department, UMC: Cardiologie / Hartcentrum
Size of research group: 8

Current mission, vision and aims
Improvement of diagnosis and treatment of coronary syndromes

Current participating departments
Amsterdam UMC – location AMC
  AMC Heart Center
  Biomedical Engineering
  Pathology
  Nuclear Medicine / Radiology
  Vascular Medicine
Amsterdam UMC – location VUMC
  Pathology
  Molecular Cell Biology and Immunology
Focus of research group (II)

**Current expertise**
Intracoronary hemodynamics
- Diagnosis during cardiac catheterization
- Evaluation effect of PCI
- Prognosis/Gender differences in coronary syndromes

Reperfusion injury AMI
- Translational research on role of monocytes following myocardial infarction
- Exaggeration of
  - Ischemic injury
  - Loss of viable myocardium
  - Development of chronic heart failure

Coronary collateral circulation
  Quantification of arteriogenesis using intracoronary hemodynamics and MRI

**Current funding**
- NHS, NWO-Veni, EU FP7, CTMM, University of Texas, Philips/Volcano
Future plans

Short term (1-2 year) plan

Necessary infrastructure:
PET-imaging is mandatory for validation studies. Direct comparison with H2O-PET and novel tracers with longer half time is eagerly awaited. CT imaging for validation study.

Long term (>2 year) plan
Plan:
Conduction of multicenter studies using flow rather than pressure parameters for guidance of interventions. Modulation of the post-myocardial infarction (MI) inflammatory response to beneficially promote infarct healing

Necessary infrastructure: PET, CT, MRI