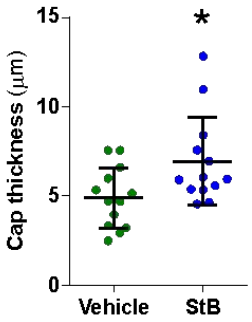
Heart Failure & Arrhythm

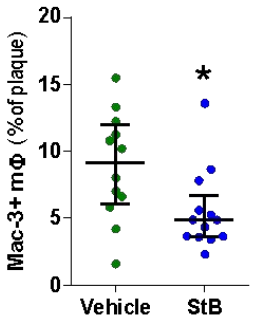
Pulmonary Hypertension & Thrombosis

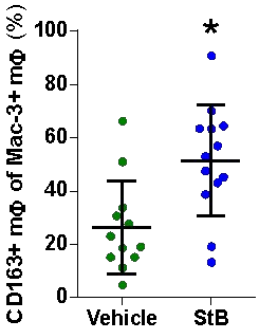
Atherosclerosis & Ischemic Syndromes

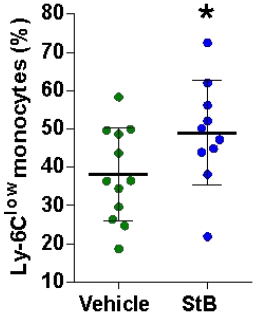
Diabetes & Metabolism

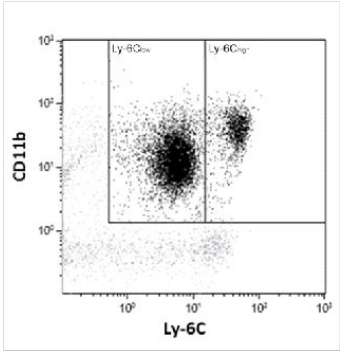
Microcirculation











Orthopedic surgery increases atheroscle

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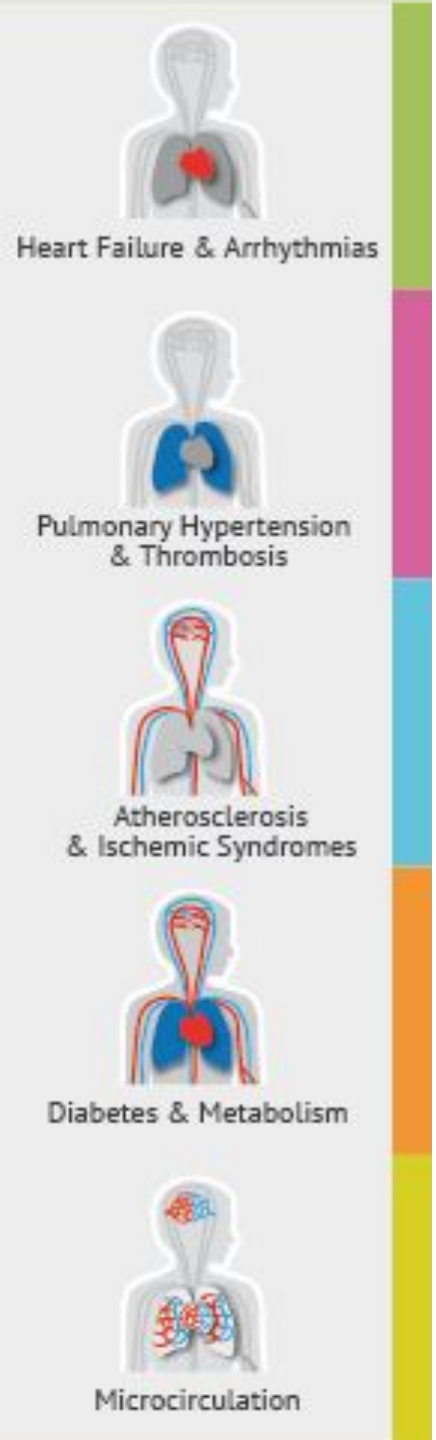
- Therapy → Enhanced Mesenchymal stem cell therapy.



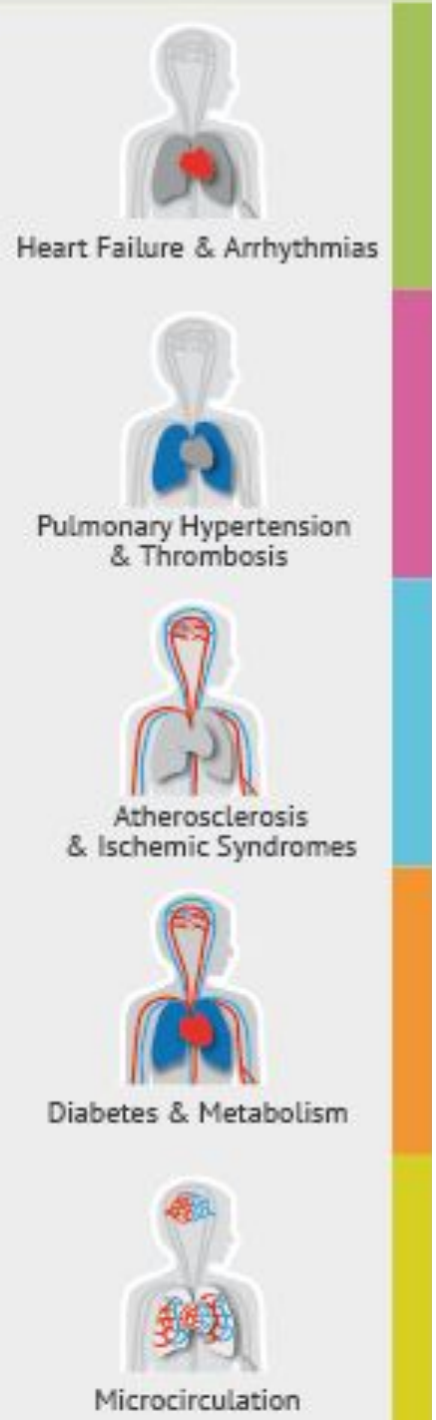
Focus of research group (II)

Current expertise

- Extensive human tissue biobank (coronary arteries, hearts).
- Tissue analysis (HC, IHC, multicolor IHC, RNAish).
- Viable tissue processing / culture.
- Animal models of myocardial infarction (MI) in rat and mouse atherosclerosis ± MI and ± viral myocarditis, diabetes.
- Human/animal adipose tissue-derived mesenchymal stem cells.

Current funding

- EFSD (European Foundation for the Study of Diabetes)
- Industry
- Insurance company
- NFI (Nederlands Forensisch Instituut)
- CSC (China Scholarship Council)



Future plans

Short term (1-2 year) Plan:

- Immuno-modulating potential of AT-MSC / secretome in macro/microvascular inflammation → systemic effects.

>2 year plan:

- Better understanding of multi-organ microvascular inflammation and ageing in MI/VM/diabetes.
- Towards clinical grade StemBell technology.

Necessary infrastructure: Animal research facility, cell/tissue culture, imaging (*in vivo*/*ex vivo*) flow cytometry, omics, virus culture.

Collaboration in ACS

Vumc: Bert van Rossum, Liza Wong, Stefan Biesbroek (Cardiology)
Alexander Vonk (Cardiothoracic Surgery)
Yvo Smulders (Internal Medicine)

AMC: Jan Piek, Anja van der laan (Cardiology)
Vivian de Waard (Biochemistry)
Allard van der Wal, Onno de Boer, Mat Daemen (Pathology)
Katja Wothers (Virology)