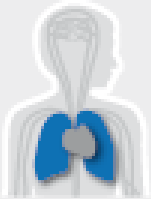
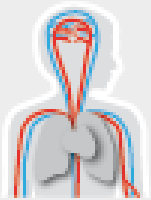


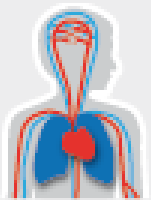
Heart Failure & Arrhythmias



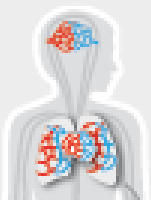
Pulmonary Hypertension
& Thrombosis



Atherosclerosis
& Ischemic Syndromes



Diabetes & Metabolism



Microcirculation

Focus of research group (I)

Name PI: **Hilde Herrema**

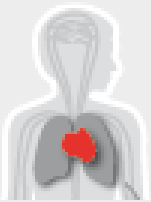
Department, UMC: **Experimental Vascular Medicine**

Size of research group: **3 (2 postdocs, 1 PhD stud)**

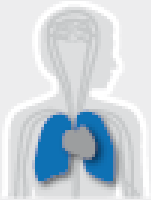
Current mission, vision and aims

Mission: Use a translational and integrative research (multidisciplinary) approach to study the development of cardiometabolic diseases. Special interest in the gut microbiome, in particular bacteriophages.

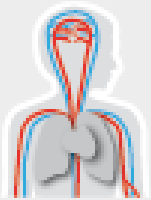
Vision: The microbiome field is in need of mechanistic, translational studies to surpass the predominantly associative work that is dominating the field. This is essential to develop a solid basis for gut microbiome-targeted interventions for cardiometabolic diseases and beyond.



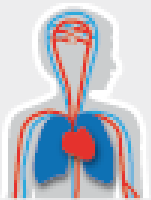
Heart Failure & Arrhythmias



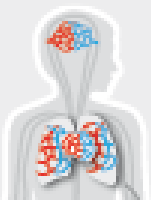
Pulmonary Hypertension
& Thrombosis



Atherosclerosis
& Ischemic Syndromes



Diabetes & Metabolism



Microcirculation

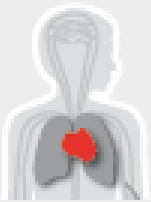
Focus of research group (II)

Current expertise

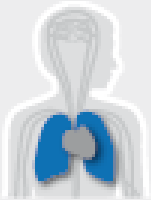
- Preclinical and *in vitro* approaches to study interactions between phages/bacteria/metabolites with mammalian (immune) metabolism
- Phage-bacterium interactions (computational, *in vitro*)
- Human intervention studies

Current funding

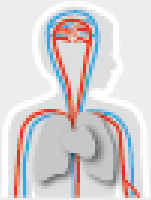
Dutch Diabetes Research Foundation
ZonMW
AGEM Innovation Grant



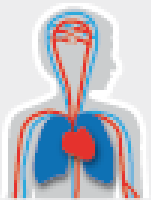
Heart Failure & Arrhythmias



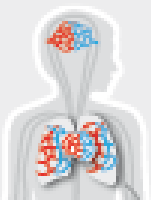
Pulmonary Hypertension
& Thrombosis



Atherosclerosis
& Ischemic Syndromes



Diabetes & Metabolism



Microcirculation

Future plans

Short term (1-2 year) plan

Plan: to better understand the transkingdom interaction between intestinal phages and bacteria and consequences thereof for human cardiometabolism.

Necessary infrastructure: Microbial MLII lab to set up state of the art *in vitro* set ups; High Performance Computational machines to process large multiomics datasets (HPC or servers)

Long term (>2 year) plan

Plan: move to more in-depth assessment (*eg* molecular mechanisms) of microbiome – CMD relation.

Collaboration in ACS

Diabetes&Metabolism ACS; HELIUS