

Focus of research group (I)

Name: **Onno Holleboom, internist**
Department, UMC: **Vascular Medicine, AMC**
Size of research group: **3 PhD students**

Current mission, vision and aims

1) First clinic for non-alcoholic fatty liver disease (NAFLD) @ internal medicine in NL

- Bridge between diabetology and hepatology
- Early identification, pre-HCC and cirrhosis

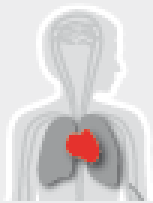
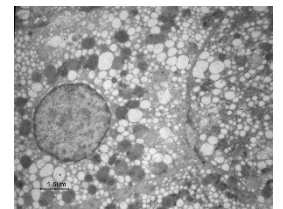
2) ANCHOR – Amsterdam NAFLD-NASH cohort

– 1100 patients - Identify biomarkers to predict progressors to NASH and those who remain in simple steatosis

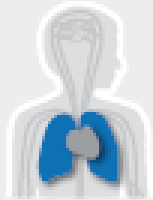
- Validation of fibroscan elastography

3) Genetic defects of lipophagy

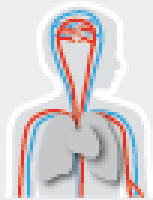
- Autophagy of lipid droplets – protection against lipotoxicity
- New pathways and treatment targets for NAFLD



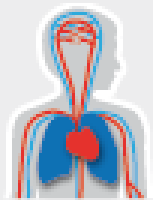
Heart Failure & Arrhythmias



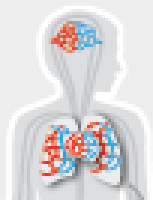
Pulmonary Hypertension & Thrombosis



Atherosclerosis & Ischemic Syndromes

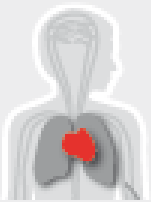


Diabetes & Metabolism

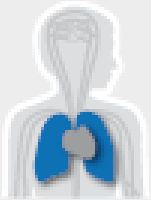


Microcirculation

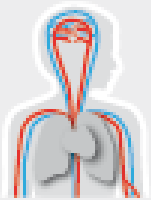
Focus of research group (II)



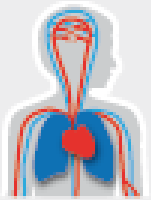
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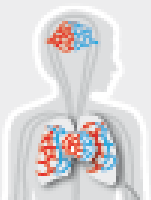
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Diabetes & Metabolism

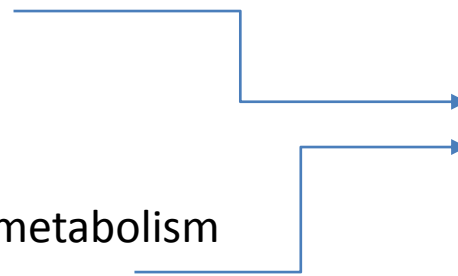


Microcirculation

Current expertise

- Endocrinology, lipidology, genetics, metabolic diseases
- Hepatology

- Intracellular lipid metabolism
- CRISPR editing
- iHeps



NAFLD-NASH

Current funding

- Veni 250 k
- LITMUS consortium 400 k
- AMC Innovation grant metabolic fluxes 500 k
- AG&M Institute Innovation grant iHeps 50 k
- Finalist 3/8 for ACS PhD scholarship



Future plans

Short term (1-2 year) plan

Plan:

Develop outpatient clinic, expand ANCHOR cohort

Identify new NASH pathways and treatment targets via lipophagy

Necessary infrastructure:

- Outpatient clinic – Fibroscan
- Expand awareness and network for case finding ANCHOR cohort
- iHeps @ Tytgat Institute
- Intracellular work @ EVG and biochemistry

Long term (>2 year) plan

Plan:

New insights from ANCHOR cohort – systems biology

NALFD in Helius

Involvement in implicating first NAFLD drugs in patient care

Necessary infrastructure:

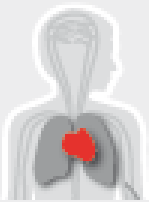
Participating centers in ANCHOR cohort

Collaboration in ACS

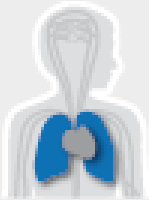
Vascular Medicine: Nieuwdorp, Groen, Hovingh, Groen, Serne

Biochemistry: Zelcer

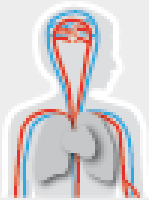
Hepatology: Beuers, Takkenberg, Ramsoekh



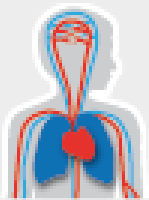
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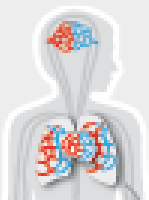
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Microcirculation