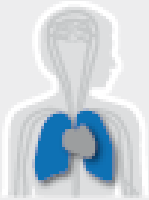
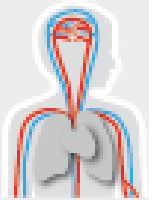


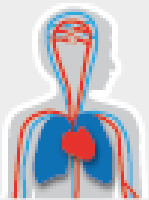
Heart Failure & Arrhythmias



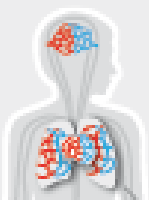
Pulmonary Hypertension
& Thrombosis



Atherosclerosis
& Ischemic Syndromes



Diabetes & Metabolism



Microcirculation

Focus of research group (I)

Name PI: Gerard Boink

Department, UMC: Medical Biology, AMC

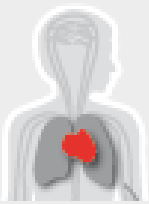
Size of research group: 12 fte

CARDIAC RHYTHM REGENERATION GROUP

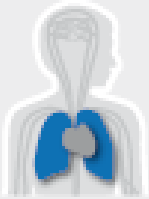
Current mission, vision and aims

Aim: Improve heart rhythm management
by
novel regenerative therapies
to
prevent or cure cardiac arrhythmias.

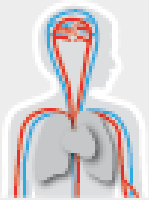
<https://www.medischebiologie.nl/boink-group/>



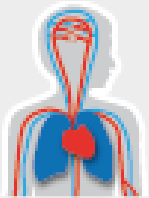
Heart Failure & Arrhythmias



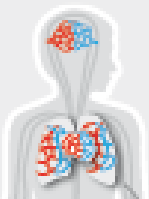
Pulmonary Hypertension
& Thrombosis



Atherosclerosis
& Ischemic Syndromes



Diabetes & Metabolism



Microcirculation

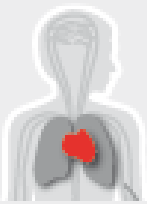
Focus of research group (II)

Current expertise

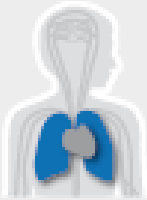
- Cardiac Arrhythmias
- Translational Gene and Cell Therapy
- Vector Engineering: Adenovirus, AAV, Lentivirus
- Direct Reprogramming
- hiPSC-CMs: Models & Therapeutics
- Animal models

Current funding

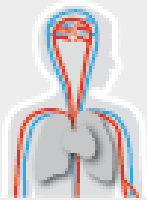
- ERC Starting Grant
- Health Holland (TKI)
- Medtronic
- Nederlandse Hartstichting Dekker
- ZonMw: Game Changer
- ZonMw: Meer Kennis Minder Proefdieren
- ZonMw: Veni



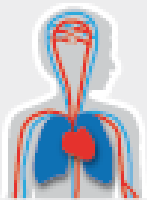
Heart Failure & Arrhythmias



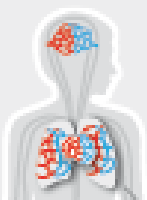
Pulmonary Hypertension
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Diabetes & Metabolism



Microcirculation

Future plans

Short term (1-2 year) plan:

- In vitro function therapeutic viruses
- Proof-of-principle *in vivo* rhythm repair (animal models)

Necessary infrastructure:

- Stem cell lab
- Virus production
- *In vitro/ex vivo* cardiac function measurement
- Relevant animal models cardiac rhythm disease

Long term (>2 year) plan:

- Preclinical animal models
- Clinical trials biological pacemaker constructs

Necessary infrastructure:

- GLP/GMP manufacture
- Trial support

Collaborations in ACS:

Connie Bezzina, Bas Boukens, Vincent Christoffels,
Ruben Coronel, Frances de Man, Hanno Tan, Arie Verkerk