Focus of research group (I)
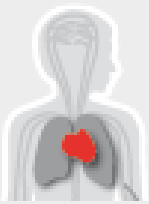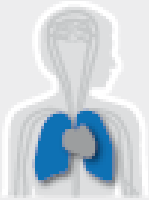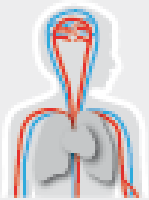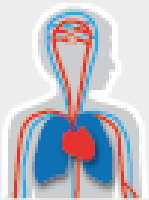
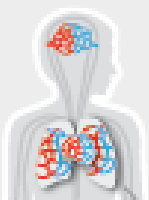

Heart Failure & Arrhythmias

Pulmonary Hypertension & Thrombosis

Atherosclerosis & Ischemic Syndromes

Diabetes & Metabolism

Microcirculation

Name PI: **Prof. Connie Bezzina**
Department, UMC: **Experimental Cardiology, AMC**
Size of research group: **17**
3 postdocs *(E.M. Lodder, I. Mengarelli, R. Walsh)*
8 PhD students *(D. Milosavljevic, J. Offerhaus, M. Nicastro, O. Woudstra, N. Lahrouchi, K. Lieve, A. Vermeer, S. Podliesna, C. Krijger)*
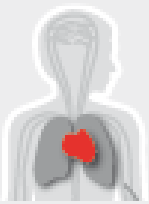2 long term visitors *(C. Glinge, S. Rezazadeh)*
2 technicians *(L. Beekman, L. Wilde)*
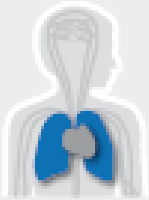
Current mission, vision and aims
Understanding the genetic architectures of inherited cardiac disorders to enable:
1. an increased understanding of the underlying mechanisms
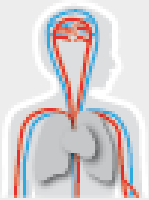2. improved prevention and care

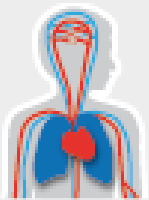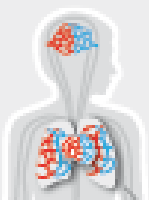Conduct studies at the intersection of clinic-genetics-function

Focus of research group (II)

Current expertise

- (Cardio)genetics
  - Whole Genome Sequencing (WGS)
  - Genome Wide Associaton Studies (GWAS)
- Systems genetics in rodents
- Bioinformatics
- Electrophysiology
- Mouse and hiPSC-CM models of cardiac disease

Current funding of the group

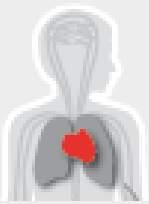**CVON-PREDICT** (Connie Bezzina)
CVON-ConcorGenes (Connie Bezzina)
CVON-RESCUED (Hanno Tan, Elisabeth Lodder)
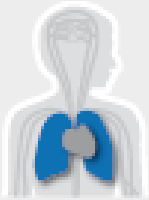**FONDATION LEDUCQ** (Connie Bezzina, Carol Ann Remme)
H2020-EscapeNet (Hanno Tan, Connie Bezzina)
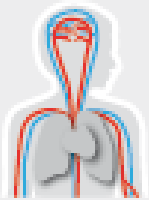**NWO-VICI** (Connie Bezzina)
NWO-VIDI (Elisabeth Lodder)

Heart Failure & Arrhythmias

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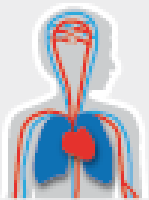
Diabetes & Metabolism
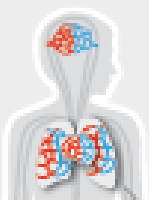
Microcirculation

Future plans

Short term (1-2 year) plan
Plan:
WGS in > 1000 patients, functional follow up of ~10 candidate genes
Necessary infrastructure:
Data storage infrastructure !!!, (super)computing facilities, hiPSC lab, electrophysiology and molecular biology labs, operating mouse facility

Long term (>2 year) plan
Plan:
WGS & GWAS in 10000+ patients
functional follow up of >50 candidate genes and compounds
Necessary infrastructure:
As above +
high throughput electrophysiology

Collaboration in ACS
Arthur Wilde, Hanno Tan, Carol Ann Remme, Connie Jimenez, Jolanda van der Velden, Joris de Groot, Vincent Christoffels, Arie Verkerk

Heart Failure & Arrhythmias

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