

## SYNOPSIS – THE CARDIOVASCULAR NETWORK – AARHUS UNIVERSITY

### Introduction

The vision of this centre is to nurture and develop the cardiovascular field at Aarhus University (AU) and strengthen its international reputation.

### Background

*The competitive situation:* Competition for research funding is increasing on the national and international levels. To maintain and develop the cardiovascular field at AU it is pivotal to attract – and retain – skilled talents within the university and associated university clinics throughout the Central Denmark Region.

*Prevention perspectives:* Despite fewer deaths from cardiovascular disease, reducing the number of new cardiovascular patients among the population remains fundamentally important. To achieve this, research on causes of cardiovascular disease, as well as education of the public regarding primary preventative measures (based on existing knowledge and cutting-edge developments) remain areas of great potential.

*The patient perspective:* Mortality associated with cardiovascular disease has markedly decreased in Denmark over the past 20-25 years due to increased public awareness about prevention as well as improved treatment. As more people live longer with cardiovascular disease demands for improved rehabilitation and long-term treatment also increase.

### Vision

Establishment of a cardiovascular centre at AU promotes knowledge gain through research. The primary purpose being to prevent cardiovascular disease, thereby saving lives, extending long-term survival, and bringing patients with cardiovascular disease back to a symptom-free existence with a sustained improvement of life quality.

*Knowledge sharing:* Regular annual meetings, workshops and knowledge sharing between the cardiovascular centre and partner institutions, including clinics throughout the region are arranged as an integral part of the collaboration. The first annual meeting was held in autumn of 2019 and the second annual meeting in September 2021.

*Training and education:* The cardiovascular centre must be capable of providing innovative education and training programmes, to contribute to a continuous quality improvement within the field. These programmes will cover pre-graduate, post-graduate, and expert levels, as well as covering interdisciplinary fields. Cardiovascular research will be integrated in the degree programmes.

*Recruitment:* The idea behind the initiative is to establish an environment that will attract and retain talented researchers across environments and institutes, regionally and internationally.

## Organisation

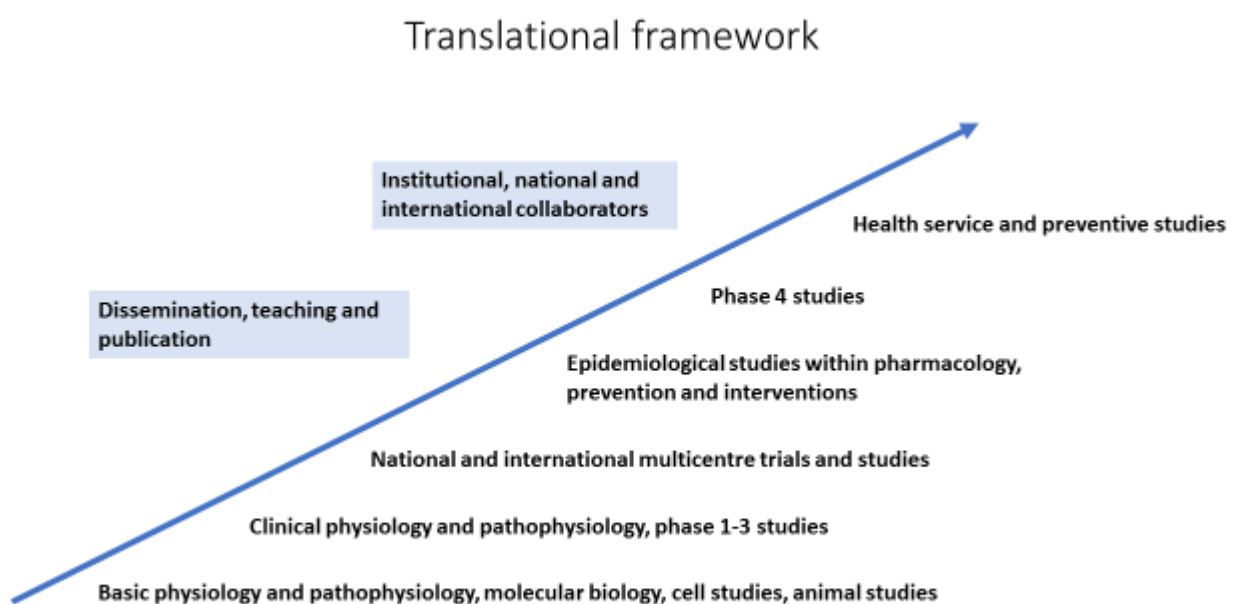
We strive to establish an interdisciplinary collaboration between the cardiovascular research environments at AU: represented by members from Department of Public Health, Department of Clinical Medicine and Department of Biomedicine in close collaboration with existing and new collaborators at AU, in the Central Denmark Region, as well as nationally and internationally. A collaboration originating from, and coordinated through, a central cardiovascular centre.

*Infrastructure:* Early establishment of an organisation making it possible to share information between the parties across clinics and research centres. Establishment of an efficient and process-oriented structure led by a relevant chairmanship and a coordinator who will facilitate project development and fundraising. Furthermore, set up of an internet-based catalogue of competencies, resources, and facilities in the active environments within the cardiovascular field and a web page for the cardiovascular centre that will be regularly updated.

*Plan for external funding:* In cooperation with The Dean's Office at Health, AU, a plan of action for the specific focus areas will be launched to proactively establish contact to potential sponsors and explore the options for funding from both industry, foundations, and public institutions.

## Objective

Through coordinating activities, with AU as the central institution, the cardiovascular centre will work strategically and systematically to increase and improve collaboration between basic, clinical, and health services research. The goal is to create better settings for research at the highest international level, foster a research environment that increases our knowledge and improves quality and efficiency of patient care through a translational strategy, and to extend and improve our professional knowledge sharing.



## Focus areas

The focus areas include the major cardiovascular diseases: heart failure, ischemic heart disease, hypertension, arrhythmias, and cardiomyopathies.

Across the focus areas, a battery of different techniques and infrastructures can help elucidate fields where the cardiovascular centre at AU desires to grow stronger, including vascular biology, physiology and pharmacology, cardiology, clinical pharmacology, heart surgery, vascular surgery, epidemiology/genetics, prevention and health services research.

	Prevalence in Denmark
Heart failure	66.000
Ischemic heart disease	150.000
Hypertension	950.000
Atrial fibrillation	144.000
Hereditary heart disease	75.000

## Strategy 2021

- Cardiovascular research at AU and AUH contributes to the health and welfare of patients and the development of society
- Interdisciplinary cardiovascular research to address societal changes
- Cardiovascular research of the highest international quality
- Development of talents within cardiovascular research and integration into the degree programmes
- Cardiovascular research degree programmes of the highest international quality
- Graduates within Cardiovascular research for the labour market of the future

