

ESCAPE-NET

The European Sudden Cardiac Arrest network towards Prevention, Education, New Effective Treatment

The problem

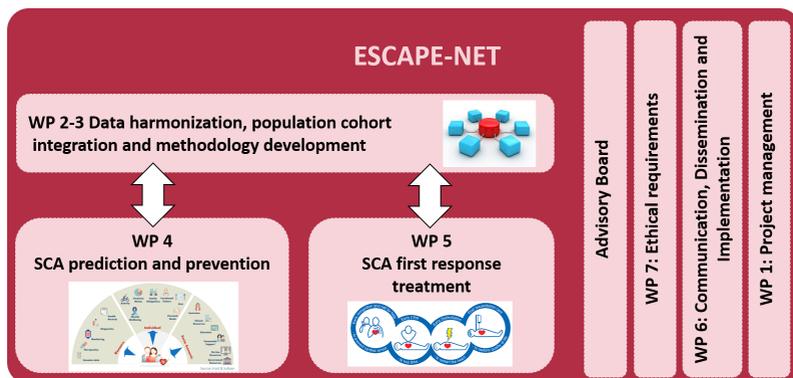
Sudden cardiac arrest (SCA) is a vast public health problem, causing ~50% of cardiac death and ~20% of all natural deaths in Europe. This problem is expected to rise further as the population ages. While improvements in primary and secondary prevention have resulted in substantial declines in overall mortality from heart disease in general and coronary heart disease in particular over the past 30 years, SCA rates have declined to a lesser extent and may be on the rise in some segment of the population.

There are great disparities in SCA incidence and survival rates after SCA across Europe and the world. Clearly, SCA prevention is a major opportunity to further reduce mortality from heart disease. This requires early recognition of individuals at risk and an understanding of the causative factors on an individual's level. This

knowledge is still lacking, and SCA now usually occurs unexpectedly, often in individuals who are unaware of their increased risk. Also, new treatment strategies for SCA have shown to increase survival rates.

Main objective

The aim of the ESCAPE-NET project is to maximize the exploitation of the European cohorts by bringing together Europe's largest SCA study cohorts in one joint database consisting of >94,000 SCA cases. This will generate the power necessary to unravel the complex causes of SCA with the strategy of a multi-scale approach, ranging from genomics to the socio-economic environment of each individual in the community. This will form the foundation of a personalized risk score, and the development of effective individualized prevention and treatment strategies.



The solution

The ESCAPE-NET consortium members have invested heavily in the last decades to create such infrastructures and have collected large European SCA cohorts with the required information, including DNA samples collected during resuscitation. ESCAPE-NET will elevate these cohorts synergistically by adding new data on novel potential risk factors. A comprehensive integration strategy of these joint exceptionally large and complete datasets constitutes a quantum leap in SCA research.

The Partners

Partners in this consortium are:

Academisch Medisch Centrum – Amsterdam, The Netherlands

Region Hovedstaden – Copenhagen, Denmark

Université Paris Descartes – Paris, France

Universita Degli Studi di Pavia – Pavia, Italia

Istituto Auxologico Italiano – Milan, Italy

Stichting VUMC – Amsterdam, The Netherlands

European Society of Cardiology – Biot, France

BioComputing Platforms Ltd. Oy. – Helsinki, Finland

Karolinska Institutet – Stockholm Sweden

Zdravotnická záchranná služba Královéhr-

deckého kraje – Hradec Králové, Czech Republic

European Resuscitation Council – Brussels, Belgium

Istituto di Ricerche Farmacologiche Mario Negri – Milan, Italy

PANAXEA BV – Amsterdam, The Netherlands

Fundacio Istitut Mar D'Investigacions Mediques IMIM – Barcelona, Spain

Catalyze BV – Amsterdam, The Netherlands

Helmholtz Zentrum München – München, Germany

Project Coordination

Hanno Tan, MD PhD

Marieke Blom PhD

Frank Groen

Tim van Beelen, MSC



Email: escape-net@outlook.com

Website: <https://escape-net.eu/>