

**Biosketch: Arthur A.M. Wilde**, got his M.D. at the University of Amsterdam in 1983 and was registered as a Cardiologist in 1994 and electrophysiologist in 1996.

Between 2003 and 2020 he served as head of the Department of Clinical and Experimental Cardiology (Academic Medical Centre) and between 2012 and 2019 as Chair of the Heart Centre Division, AMC. He published over 600 SCI papers with a major focus on different aspects of inherited arrhythmia syndromes.

In 2011 he was appointed as member of the Dutch Academy of Science and in 2012 he received the Distinguished Investigator award of the Heart Rhythm Society. Since 2017 he leads the European Research Network (ERN) GUARD-heart on inherited diseases of the heart.

Abstract: Sudden cardiac death and inherited arrhythmia (Keynote lecture)

Sudden Cardiac Death (SCD) is a major cause of death in civilized societies. In the Western world it is estimated that 1 in 1000 adults dies suddenly each year and that adds up to almost 20% of total mortality. When it occurs at young age (<40y) it is most often based on an inherited cardiac arrhythmia syndrome with or without a structural substrate in the heart. Pathology studies of deceased individuals at young age reveal a structurally normal heart in up to 30-40% of patients. Genes involved in SCD in this age group include genes encoding for ionchannels and their subunits. In deceased individuals with a structural abnormality, genes encoding for sarcomeric, cytoskeletal or desmosomal proteins are involved. The identification of a pathogenic genetic substrate in the deceased has enabled the identification of presymptomatic family members at risk (harboring the same variant) and provide the opportunity for timely treatment. In addition, it has provided enormous insight into the pathophysiology of these syndromes and into detailed risk-stratification, optimizing therapeutic management. In addition, in some of these syndromes it had lead to new therapeutic choices based on the pathophysiological substrate. In other words the identification of the genetic substrate has provided new therapeutic armentarium.