Cristina Molina

"My primary scientific interests are in understanding the basic cellular pathomechanisms underlying cardiac arrhythmias, the role of sympathetic activation and how the remodelling on cAMP/cGMP-dependent kinases (such as PKA, PKG and CaMKII) signalling is linked to compartment-specific changes in Ca2+-handling in human myocytes and neurons."

Cristina E. Molina is a professor at the University Medical Center Hamburg-Eppendorf in Germany and has 20 years of experience as a cardiac cellular electrophysiologist. She obtained her PhD from the Universitat Autonoma de Barcelona in 2009 and did her first post-doctoral work at the University of Paris 11. After her IEF Marie Curie fellowship at the Cardiovascular Research Centre in Barcelona, she moved to Germany in 2015 and in 2023 she obtained a full professor Heisenberg position. She studies pathophysiological aspects of cardiac EC coupling and arrhythmogenesis in human myocytes. She is best known for her work on the role of receptor-mediated modulation of ionic currents, intracellular Ca2+-handling and second messengers in atrial fibrillation, including the contribution of different phosphodiesterases to the pathophysiological mechanisms underlying this arrhythmia. She has developed an isolation method that allows her to transduce and culture human primary cardiomyocytes from any type of human cardiac tissue, from centimetre to millimetre sized tissue, atrial or ventricular, from healthy or diseased patients, to genetically manipulate human cardiac cells and monitor cAMP changes using FRET.