

Originally from Nova Scotia, Canada, William Louch received his PhD in Pharmacology from Dalhousie University in 2001. Following postdoctoral positions at the University of Leuven, Belgium and the University of Oslo, Norway, Louch became Professor of Medicine at the University of Oslo in 2015. His research group studies the structure and function of cardiomyocytes, with particular focus on functional units called dyads. Here, membrane invaginations called t-tubules interface with ryanodine receptors in the sarcoplasmic reticulum to trigger calcium release and cellular contraction. Louch's group have shown that dyads exhibit impressive plasticity, as they are assembled gradually in the developing heart, and can be grown during compensatory cardiac remodeling to augment calcium homeostasis. However, during diseases such as heart failure, dyads disassemble as they regress to an immature phenotype, resulting in decreased power of the heartbeat. Based on these insights, Louch's group endeavours to develop novel cellular therapies for cardiac disease.