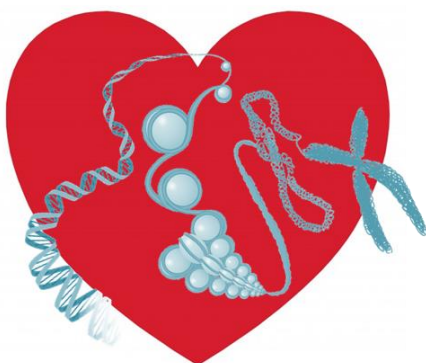




Master Thesis Project

“Epigenetics changes associated with atrial fibrillation”

We are seeking a student for a master thesis project combining the exciting fields of cardiac arrhythmia and epigenetics.



Background and aim: Atrial Fibrillation (AF) is the most common form of cardiac arrhythmia. It affects 5% of the population above 65 years of age. This disease is characterized by rapid electrical discharges in the atria that lead to an increased and irregular heart rhythm. However, the molecular and electrophysiological mechanisms leading to AF are poorly understood. Recent evidence indicates that epigenetic mechanisms are involved in AF pathogenesis.

In this project, we aim at clarifying on how epigenetic features, such as micro RNAs and DNA methylation, influence the gene expression by directly or indirectly binding to regulatory factors of specific target genes.

Project: Taking advantage of our pilot data, you will assess the role of micro RNAs in AF. You will investigate possible mRNA-miRNA interactions by luciferase reporter essays followed by functional analysis. Furthermore, you will have the opportunity to analyze next generation sequencing data to identify variations in methylation and gene expression.

Qualifications: You should be interested in doing your Master thesis in the fields of epigenetics and cardiac disease. We expect you to be highly motivated, ambitious and able to work independently. Also, since this project is part of a larger study, you should be a responsible team player. Ideally, you are enrolled in the study courses molecular biomedicine, human biology, biochemistry or related fields.

Main supervisor: Associate Professor Nicole Schmitt

Daily supervisor: PhD student Joana Larupa dos Santos

Project start: Between May and September 2017

Project duration: 1 year minimum

Location: Panum Building

Contact information: nschmitt@sund.ku.dk, joana.santos@sund.ku.dk

If you are interested, send us a brief letter of motivation including information about your study background.

More information about the Ion Channel Group can be found at <http://ionchannel.ku.dk>.