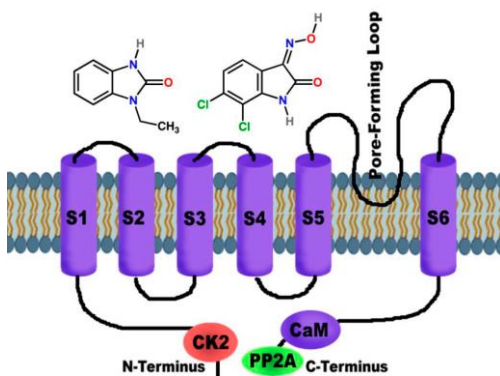


Deciphering the molecular composition and pharmacology of cardiac SK channels

The small conductance calcium activated K⁺ channel (SK-channel) is a promising new drug target for treatment of atrial fibrillation (AF), which is the most common form of cardiac arrhythmia. We are collaborating with the Danish biotech company (Acesion Pharma) on understanding the role of SK channels in AF and the molecular composition and pharmacology of cardiac SK channels.

While the role of SK channels in cardiac electrophysiology is well established, the molecular composition in the heart and the structural basis for drug interaction are not resolved yet. Your work will establish the composition of the cardiac SK channel complex. This will have great impact on the design of future drugs targeting the SK channel complex for the treatment of cardiac arrhythmia.



The Master thesis project will aim at deciphering the molecular composition and pharmacology of the cardiac SK channel complex. The work will involve designing, cloning and electrophysiological characterization of SK channel concatemers, as well as biochemical and imaging techniques for studying the composition of the cardiac SK channel.

We offer state-of-the-art facilities and a great working environment with both academic and translational interests and a lot of social activities.

The project is primarily suited for students with

laboratory experience such as from the study courses Human Biology and Molecular Biomedicine, but others are of course welcome to apply, too.

Supervision and contact

Supervision by Associate Professor Bo Hjorth Bentzen and Professor Nicole Schmitt.

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