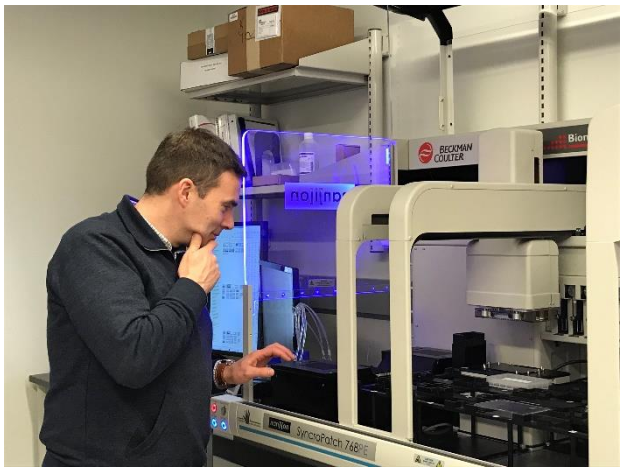
HIGH-END INSTRUMENTATION PROPOSAL

SyncroPatch 384i – Advance Ion Channel Screening

Northwestern University – Feinberg School of Medicine

The Feinberg School of Medicine is situated in the heart of Chicago and is committed to be part of a forward-thinking institution committed to improving human health through education and discovery. Research in Prof. Al George Jr.'s lab is focused on the structure, function, pharmacology and molecular genetics of ion channels. Al is an internationally recognized leader in the field of channelopathies based on his important discoveries on inherited muscle disorders (periodic paralysis, myotonia), inherited cardiac arrhythmias (congenital long-QT syndrome) and genetic epilepsies.

Prof Al George's laboratory was the first to determine the functional consequences of a human cardiac sodium channel mutation associated with an inherited cardiac arrhythmia. His group has elucidated the functional and molecular consequences of several brain sodium channel mutations that cause various familial epilepsies and an inherited form of migraine. These finding have motivated pharmacological studies designed to find compounds that suppress aberrant functional behaviors caused by mutations.



SyncroPatch 384PE welcomes a visitor to the Northwestern lab.

Project Summary

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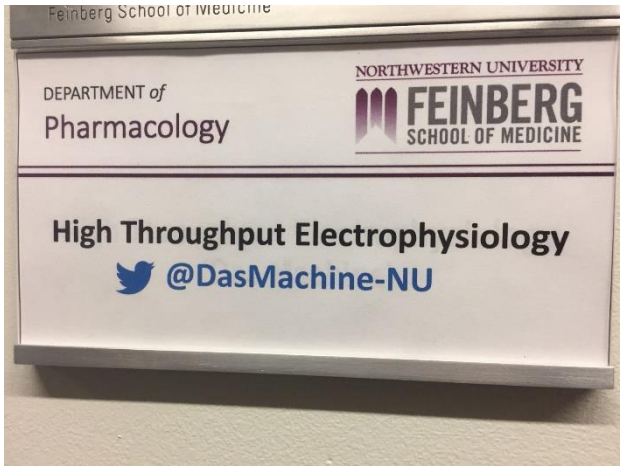
The **SyncroPatch 768PE** situated in Prof. Al George Jr.'s lab, has been used to characterize the electrophysiological properties of more than 200 variants in voltage-gated sodium and potassium channels using the **SyncroPatch 768PE** system, with many more in the pipeline.

Determining the functional effects of ion channel variants can help with classification as potentially disease causing or not. In their recent study of long QT syndrome type 1, the George laboratory was able to reclassify >65% of KCNQ1 (encoding KV7.1) variants of uncertain significance as likely pathogenic. Most recently, they presented a study of 80 KCNQ2 variants at the annual meeting of the American Epilepsy Society.



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This Promotion is sponsored by Nanion Technologies GmbH, Ganghoferstraße 70a, 80339 Munich, Germany.
Please send an e-mail
SyncroPatch_Grant@nanion.de
for more information.

Nanion Technologies GmbH
Ganghoferstraße 70a
80339 Munich
Germany
www.nanion.de