

MECHANISMS OF GENETIC HYPERTENSION

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Description:

This project utilizes molecular biological as well as electrophysiological techniques to study gain of function mutations of the epithelial Na⁺ channel. This channel and mutations thereof are implicated in multiple forms of genetic hyper- and hypo-tension. These mutations lead to changes of channel activity and ultimately salt and water reabsorption. We have previously identified multiple channel domains that lead to changes of channel activity. This project deals with a better characterization of the molecular mechanisms of these domains and how they regulate channel function and ultimately blood volume and pressure.

Prerequisites:

This project requires a high degree of dedication and has the potential for paid/volunteer research during the academic year. Qualifications include prior laboratory experience, good grasp of Physiology/Cell Biology and most of all dedication to complete this potentially rewarding work.