“Calcium Channels at Synaptic Terminals Following Gene Alteration in Animal Models of Ataxia and Migraine”

The primary function of the presynaptic nerve terminal is to release transmitter. In almost every step of this mechanism there is a substantial involvement of ion channels. Of special interest are the voltage dependent Ca\(^{2+}\) channels that open upon depolarization. The main hypothesis of our research activity is that different types of Ca\(^{2+}\) channels have specific functions. They are expressed depending on the biological status of the neuron. We are using electrophysiological techniques to record synaptic activity at the neuromuscular junction and at the giant CNS synapse, the “calyx of Held,” in animal models with neurological disorders linked to alterations in the P/Q type Ca\(^{2+}\) channels.

Selected Publications:


