



## **Matteo Caleo, PhD**

Matteo Caleo is a Research Associate at the CNR Institute in Pisa, and a Professor of Physiology at the University of Padua, Italy.

The main goal of his laboratory is to characterize the plastic modifications of neuronal connections occurring during the development and in pathologies of the central nervous system (stroke, brain tumors, and epilepsy). A characteristic feature of the laboratory is the exploitation of specific bacterial toxins (such as botulinum neurotoxins, tetanus neurotoxin, and cytotoxic necrotizing factor) for studies of brain physiology and pathology. Specifically, we study how botulinum and tetanus neurotoxins may affect the central nervous system following peripheral administration. Research in the laboratory relies on combining different electrophysiological (single-unit, local field potential, and EEG recordings), optogenetic/chemogenetic, neuroanatomical, behavioral, and neurochemical approaches in vivo.