RESEARCH INTEREST

1. Calcium signaling.
2. Neurodegenerative diseases, screening of neuroprotectant compounds.

In the past ten years, I focused on the regulation of the calcium channel named CALHM1 “Calcium Homeostasis Modulator 1”. First, CALHM1 was involved as a risk factor in Alzheimer disease; however, its role on the pathophysiology of this disease is controversial, and upon revision. From its physiological point of view, CALHM1 play a role in the taste pathway of the sweet, salt and human. In addition, it is a voltage dependent channel that its opening regulates the neuronal action potential. For this reason my work hypothesis in which I am working on, is to clarify whether CALHM1 its implicated on the propagation of neuronal death in the stroke. Pharmacology of CALHM1 with potential therapeutic application in neurodegenerative diseases and stroke. In 2015, I published a paper showing that a compound called CGP was able to modulate CALHM1, using the HeLa cells as a model. CGP and its derivate could be a potential neuroprotective compounds and with potential therapeutic applications to neurodegenerative diseases (particularly Alzheimer’s disease) and cerebrovascular diseases (stroke). Research focus. I would focus the basic research on the understanding of the role of CALHM1 and the mitochondrial sodium/calcium exchanger in ischemia and neurodegenerative diseases. In addition, I will try to develop newly synthesized compounds as neuroprotective medicines for Alzheimer’s disease and ischemia, taking as model the mitochondrial sodium/calcium estranger as a goal for neuroprotection.

RECENT PUBLICATIONS


