

Abstract

The lack of agents that can promote neuroprotection against neurodegenerative disorders, makes the need for the development of new treatment strategies pertinent. However, dozens of tentative therapeutic agents, despite passing preclinical screening, fail to show efficacy in clinical trials. It is obvious thus, that in vitro and in vivo testing of new treatments should change and become more effective. A possible improvement among others could be the thorough evaluation of dendritic field alterations on neurons under different conditions and substances. Here, the effect of the antidiabetic agent empagliflozin is presented on the dendritic tree of primary hippocampal cell cultures.

Short Bio

Konstantinos Tsamis is Neurologist and Assistant Professor of Physiology in the Faculty of Medicine, University of Ioannina since May 2021. His research interests are mainly focused on the structure and function of neurons and neuronal circuits, on mechanisms underlying synapses' formation, their disruption in neurological disorders and the effect of different therapeutic agents. His team is currently working on the efficacy of the antidiabetic treatments on models of Alzheimer's disease. Other research interests include brain oscillations, brain- machine interface, nerve conduction studies, and diagnostic approaches to neuropathies and myopathies. His teaching activities include physiology and neurology in pre-graduate medical students and neuroscience in master students. He is also enthusiastically engaged in science outreach events with the team ExploringTheBrain.