First Laureate
Fundamental Research

Project Title: Development of therapeutic strategies to treat neurodegenerative diseases.
Researcher: Prof. Claudio Andrés HETS FLORES
Country: Chile
Field: Biomedicine, Biotechnology
Scientific Affiliation: Faculty of Medicine, University of Chile

Abstract:

My research focuses on understanding the molecular basis of organelle stress and its relationship to pathological conditions affecting the nervous system, in addition to develop of prototypic therapies to prevent this damage. Our laboratory is committed to study cellular strategies involved in adaptation to chronic protein folding stress and use this knowledge to develop therapeutic strategies. We have been pioneer in defining the functional impact of protein folding stress to brain diseases using preclinical models and genetic manipulation of stress pathways. We are also developing gene therapy strategies to alleviate cellular damage in different diseases involving protein misfolding such as Parkinson, Alzheimer and amyotrophic lateral sclerosis. Our laboratory is one of the most productive laboratories in Latin America and currently funded by various national and international organizations. We are committed to train the new generation of researchers in biotechnology and biomedicine and have built a highly competitive and innovative laboratory.

Biography:

Claudio Hetz was originally trained as Biotechnology Engineer at the University of Chile and performed a Ph.D in Biomedical Sciences at Serono Pharmaceutical Research Institute, Switzerland. Then he did his postdoctoral training at Harvard University. He joined the University of Chile during 2007 and is currently Full Professor at Faculty of Medicine and adjunct Professor at Harvard. He is also currently the Co-Director of the Biomedical Neuroscience Institute. His research focused on understanding the molecular basis of protein folding stress, its relationship to pathological conditions affecting the nervous system, the generation of new animal models, and the development of prototypic strategies to prevent neuronal damage. He has received important award including the TWAS-ROLAC Young Scientist Prize as outstanding young scientist in Latin America, was finalist in the Eppendorf and Science Award in Neurobiology, and was awarded with the Cell Biology Society and Bios-Chile prize as the best young scientist of Chile.