

# Molecular Mechanisms in Tissue Degeneration and Regeneration

Buenos Aires, Argentina  
1-3 October, 2015



## LECTURE

C9orf72 – Models, Biomarkers, and Therapeutic Strategies.

### Dr. LEONARD PETRUCELLI

He is chair of the Department of Neuroscience at Mayo Clinic in Florida. He is recognized as the Ralph B. and Ruth K. Abrams Professor and has full faculty privileges in molecular neuroscience at Mayo Graduate School.

He earned his Bachelor of Science degree at Barry University, Miami, and his Ph.D. degree in molecular and cellular biochemistry at Loyola University and Stritch School of Medicine, Chicago. He came to Mayo Clinic's Florida campus as a research fellow in 2000 and joined the neurosciences research staff two years later.

Dr. Petrucelli and his research team are at the forefront of their field, researching the cellular mechanisms that cause neurodegeneration in Alzheimer's disease, amyotrophic lateral sclerosis (ALS), or Lou Gehrig's disease, and frontotemporal dementia (FTD). By combining expertise in drug discovery, cell biology and induced pluripotent stem cell (iPSC) modeling, his lab aims to develop therapies for the treatment of diseases characterized by abnormal protein aggregation. Dr. Petrucelli's team recently discovered a new therapeutic target and biomarker with the aim of improving the diagnosis and prognosis for patients suffering from FTD and ALS linked to a mutation in the C9orf72 gene. Most recently, Dr. Petrucelli's team developed a mouse model that exhibits both the neuropathological and behavioral features associated with ALS and FTD. This exciting new development will speed further research into the molecular mechanism behind these disorders.

He is principal investigator for several grants funded by the National Institutes of Health (NIH) and the Department of Defense. He has editorial responsibilities for several scientific journals, and his findings have been published in The Proceedings of the National Academy of Sciences USA, Journal of Clinical Investigation, Journal of Neuroscience, Neuron and Science, among others.

In recognition of his efforts, Dr. Petrucelli has received numerous honors, including: National Research Service Award, conferred by NIH; "Best Advances of 2013" recognition by the Editorial Advisory Board, Neurology Today; and 2013 Health Care Heroes award for research, given by the Jacksonville Business Journal. He was recently appointed to the Florida Alzheimer's Disease Research Grant Advisory Board and his NIH service includes serving as an invited member of the Cellular and Molecular Biology of Neurodegeneration (CMND) Study Section.