



PRÊMIO PG

AARON GITLER



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Aaron Gitler is an assistant professor in the Department of Cell and Developmental Biology at the University of Pennsylvania School of Medicine. Dr. Gitler received his B.S. degree at Penn State University and his Ph.D. in cell and molecular biology from the University of Pennsylvania, where he investigated the role of endothelial cell signaling pathways in cardiovascular development.

In postdoctoral research with Susan Lindquist, at the Whitehead Institute for Biomedical Research, he performed high-throughput genetic screens in yeast for modifiers of toxicity associated with the Parkinson's disease protein alpha-synuclein. His group at the University of Pennsylvania is combining yeast and human genetics to elucidate novel pathways involved in neurodegenerative disease, focusing on the role of RNA-binding proteins in the motor neuron disease ALS.

Dr. Gitler's laboratory is investigating the mechanisms of human neurodegenerative diseases by defining critical genes and cellular pathways affected by aggregation-prone human disease proteins. He uses the budding yeast as a model system to study mechanisms underpinning protein-misfolding diseases. His approach has been to construct yeast models to study human neurodegenerative disease proteins and to perform high-throughput genome-wide screens for modifiers of toxicity.

Dr. Gitler has focused on the ALS disease protein TDP-43 and discovered several potent modifiers of TDP-43 aggregation and toxicity. Dr. Gitler and his colleagues have begun to extend these findings to human disease, discovering that mutations in ataxin 2, the human homolog of one of the yeast TDP-43 toxicity modifier genes, are associated with increased risk for ALS in humans. These findings show the power of simple experimental model systems for providing completely new insight into mechanisms of complicated human diseases.

Corpo de Jurado

NOME	INSTITUIÇÃO
Mamede de Carvalho	Institute of Molecular Medicine - Faculty of Medicine (Lisboa - Portugal)
Prof. Orla Hardiman	National Neuroscience Centre (Dublin-Irlanda)
Walter G. Bradley	Miller School of Medicine - University of Miami (Miami-EUA)
Francisco Rotta	Associação Regional de Esclerose Lateral Amiotrófica- RS e Alliance ALS-MND (Rio Grande do Sul - Brasil)
Brian Dickie	MND Association - Motor Neuron Disease