Aryn Gittis

Professor at Carnegie Mellon University

Pittsburgh, PA, US

Aryn Gittis studies neural circuits in a multifunctional brain region that plays a role in the regulation of movement, learning, and reward.

Biography

Aryn Gittis received her Ph.D. from UCSD in 2008 where she studied the vestibular system in the lab of Sascha du Lac. From 2008-2012 she was a postdoc with Anatol Kreitzer at the Gladstone Institute/UCSF where she began her studies of basal ganglia circuitry and its plasticity in disease. She started her lab at CMU in 2012 in the Department of Biological Sciences and the Center for the Neural Basis of Cognition and is now an Associate Professor. The Gittis lab studies the neural basis of motor control in health and disease. Using mouse models of Parkinson?s disease, our lab has identified cellular nodes where optogenetic interventions promote long-lasting recovery of movement in the disease state. Current studies seek to understand the broader motor circuits in which these nodes function, using a combination of behavior, electrophysiology, and anatomical approaches. We are also innovating new experimental models for the study of network compensation during progressive dopamine loss, and how these compensatory mechanisms preserve, or possible paradoxically exacerbate symptoms of movement disorders.

Industry Expertise

Health and Wellness, Education/Learning, Research

Areas of Expertise

Movement Disorders, Optogenetics, Neuroscience, Electrophysiology, Neural Circuits

Education

Gladstone Institute for Neurological Disease
Postdoctoral Appointment

University of California, San Diego
Ph.D.

Accomplishments

Eberly Family Career Development Endowed Chair in Biological Sciences
2015