Hereditary Disease Foundation Announces 2022 Prize Winners for Leadership in Huntington's Disease Research

NEW YORK – (October 19, 2022) – The Hereditary Disease Foundation today announced the winners of its 2022 prizes for leadership in Huntington's disease research.

-- **Steven Finkbeiner, MD, PhD**, (Gladstone Institutes and University of California, San Francisco) is the winner of the **2022 Leslie Gehry Prize for Innovation in Science** for his advancements in developing powerful, cutting-edge technologies to understand and develop treatments for Huntington's disease.

-- **Natalia Barbosa, PhD** (Stanford) is the winner of the **2022 Nancy S. Wexler Young Investigator Prize** for her work that is potentially opening up new strategies for effective therapeutic interventions for Huntington's disease.

Dr. Finkbeiner and Dr. Barbosa will be featured speakers at the Hereditary Disease Foundation Virtual Gala on Thursday, November 10, 7pm ET.

Steven Finkbeiner, MD, PhD

Natalia Barbosa, PhD

Steven Finkbeiner, Translating Research into Therapeutics
Dr. Finkbeiner is Senior Investigator, Director of the Center for Systems and Therapeutics, and Director of the Taube/Koret Center for Neurodegenerative Disease Research at Gladstone Institutes, as well as Professor of Neurology and Physiology at the University of California, San Francisco. He has studied HD for over 25 years, solidifying himself as a leader in neuroscience at the forefront of understanding neurodegenerative diseases. He is best known for the invention of a robotic imaging device that helped capture the life of brain cells and the cellular and subcellular processes leading to their death in HD. He was among the very first in the world to implement deep learning to find cellular features that humans couldn't see. He has recently developed a new robotic microscopy pipeline that includes computer vision models trained to annotate neuronal degeneration in a dish at – as he defined – "superhuman" precision. Dr. Finkbeiner has also established the Taube/Koret Center for Neurodegenerative Disease Research at Gladstone to accelerate the identification of treatments for neurodegenerative diseases. The Center provides researchers around the world with access to comprehensive biological and clinical data from thousands of people with neurological diseases, setting the stage for machine-learning and artificial-intelligence analysis as a gateway to mechanisms and treatment of neurodegenerative diseases. For his advancements in developing these powerful, cutting-edge technologies to understand and develop treatments for HD, Dr. Finkbeiner has been honored with the 2022 Leslie Gehry Prize for Innovation in Science.

Natalia Barbosa, Investigating Crucial Connections in HD
Dr. Barbosa is a postdoctoral fellow in the laboratory of Judith Frydman, PhD at Stanford University. Dr. Barbosa's work is a stunning example of selecting the right model system to answer a scientific line of inquiry effectively and efficiently – she will use simple baker's yeast to understand how a particular cellular component (mitochondria) participates in the formation of protein clumps in HD that contribute to neuronal breakdown. Yeast can be grown under conditions where mitochondria are dispensable or essential for their survival. This unique feature allowed Dr. Barbosa to develop experiments that test if and how mitochondria participate in the formation of protein clumps in yeast that have the gene that leads to HD. Her work will first define this process in yeast before identifying genes and interventions in neurons. Understanding the connections between mitochondria and protein clumping may change the way we think about Huntington's disease, potentially opening up new strategies for effective therapeutic interventions. For this work, Dr. Barbosa has been awarded the 2022 Nancy S. Wexler Young Investigator Prize.

The Gehry Prize is presented annually to recognize an outstanding scientist whose originality, spontaneity, precision, and rigor have advanced the search for treatments and cures for Huntington's disease and other brain disorders. The award was created by the acclaimed architect and HDF Founding Director Frank Gehry and his family in memory of his late daughter.

The Wexler Prize honors the pioneering spirit, relentless dedication, and enduring optimism of Nancy S. Wexler, PhD, President of the Hereditary Disease Foundation. It is presented annually to an early career researcher whose work reflects the highest caliber of excellence, diligence, and creative thinking.

“Research to find treatments and cures for Huntington’s disease is giving hope to families around the world who are impacted by this devastating disorder,” says Meghan Donaldson, CEO of the Hereditary Disease Foundation. “We celebrate Steven Finkbeiner and Natalia Barbosa for their extraordinary work and their commitment to scientific exploration that is leading to discoveries.”

About the Hereditary Disease Foundation
The Hereditary Disease Foundation (HDF) funds innovative scientific research to cure Huntington’s disease (HD), a genetic disorder that strikes in early- to mid-adulthood, destroying brain cells and causing irreversible decline in control of mood, memory, and movement. Since HD is caused by a single gene, it serves as a model to potentially unlock cures for other complex brain disorders like Parkinson’s, Alzheimer’s, and Lou Gehrig’s (ALS) diseases. Research organized by HDF led to the discovery of the genetic marker for HD in 1983. HDF organized and funded a decade-long international collaboration of over 100 scientists who discovered the gene that causes Huntington’s in 1993. This work played an important role in the development of the Human Genome Project.

Source: Hereditary Disease Foundation

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