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# Gladstone Scientist Receives 2011 Young Investigator Award from the Society for Neuroscience

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SAN FRANCISCO, CA—Nov. 14, 2011— Gladstone Institutes Assistant Investigator Anatol Kreitzer, PhD, has won the prestigious 2011 Young Investigator Award from the Society for Neuroscience. Dr. Kreitzer, who is also an assistant professor of physiology and neurology at the University of California, San Francisco (UCSF), will share the award with UCSF Associate Professor of Physiology Loren Frank, PhD.

This award recognizes Dr. Kreitzer's and Dr. Frank's pioneering studies of brain circuitry and its relationship to motor control, learning and memory. In addition to both being professors at UCSF, with which Gladstone is affiliated, Dr. Kreitzer and Dr. Frank are also both members of UCSF's Neuroscience Graduate Program. The award will be given today at the Society for Neuroscience annual meeting in Washington, DC.

"One of the Society's most important objectives is providing support and recognition for talented young neuroscientists," said Susan G. Amara, PhD, president of the Society for Neuroscience. "Dr. Kreitzer and Dr. Frank have demonstrated their deep commitment to the field and have given us exciting new insights into the neural circuitry of the brain."

The Young Investigator award is the most prestigious award given in recognition of the achievements of outstanding young neuroscientists. Notable past recipients include National Academy of Science members Marc Tessier-Lavigne, PhD, president of The Rockefeller University, Carla Shatz, PhD, director of BioX and professor of biology and neurobiology at Stanford University and Richard Huganir, PhD, professor and director of the Solomon H. Snyder department of neuroscience at Johns Hopkins University, as well as an investigator with the Howard Hughes Medical Institute.

Over the past five years, Dr. Kreitzer has pioneered the study of neural-circuit function in a part of the brain known as the basal ganglia, in order to understand how modifications in these functions contribute to movement problems in Parkinson's disease. Affecting approximately 1 million Americans, Parkinson's is the second most common neurodegenerative disorder after Alzheimer's disease. It occurs when certain brain cells—those

that produce the chemical dopamine—degenerate. Dr. Kreitzer's research findings have established how the loss of dopamine in the basal ganglia—a critical area of the brain that controls things such as movement, learning and habits—leads to chronic and maladaptive changes in how neurons communicate.

In a paper published in the journal *Nature* in 2010, Dr. Kreitzer's group demonstrated that activation of specific kinds of cells in the basal ganglia, called striatopallidal neurons, was sufficient to cause Parkinson's-like symptoms in mice. In a paper published this year in the journal *Neuron*, Dr. Kreitzer discovered how a different population of brain cells, called fast-spiking neurons, can coordinate the activity of striatopallidal neurons after the loss of dopamine, kicking off a chain of events that eventually leads to difficulties controlling movement—a hallmark of Parkinson's.

Dr. Kreitzer's interest in neuroscience began during his undergraduate years at UC Berkeley, evolving from his study of linguistics. "As I studied words and language, I became curious about how we learn," he said. That curiosity led to graduate studies in cognitive sciences and eventually doctoral studies in neurobiology at Harvard, where he earned his PhD.

"We are gratified that the Society for Neuroscience has recognized Dr. Kreitzer and Dr. Frank for their outstanding scientific contributions. It is a testament to the innovation and strength of the neuroscience community at Gladstone and UCSF," added Lennart Mucke, MD, who directs neurological disease research at the Gladstone Institutes and is a UCSF professor of neurology and neuroscience.

## **About the Society for Neuroscience**

The Society for Neuroscience is the world's largest organization of scientists and physicians devoted to advancing the understanding of the brain and nervous system. The Young Investigator Award was established in 1983 and is supported by AstraZeneca. The award includes \$15,000 and recognizes the achievements of neuroscientists who have received an advanced degree in the past 10 years.

#### **About the Gladstone Institutes**

Gladstone is an independent and nonprofit biomedical-research organization dedicated to accelerating the pace of scientific discovery and innovation to prevent illness and cure patients suffering from cardiovascular disease, neurological disease or viral infections. Gladstone is affiliated with the University of California, San Francisco.