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Thomas M. Jessell Wins Top Prize from the Society for Neuroscience

~Award recognizes a career of groundbreaking research deciphering how the brain controls movement~

SAN DIEGO, CA, November 17, 2016 — The Society for Neuroscience honored Thomas M. Jessell, PhD, with its highest award, reserved for scientists whose outstanding research has advanced the entire field. Dr. Jessell, a world expert in the neuroscience of movement and a codirector of Columbia's Mortimer B. Zuckerman Mind Brain Behavior Institute, accepted the prize on Sunday at the Society's annual meeting in San Diego.

"Dr. Jessell's work has revolutionized the study of circuits in the developing spinal cord," said Society President Hollis Cline, PhD, who presented the award. "The rigor of his experiments — coupled with his tightly reasoned interpretations — have set new standards in the field of development and have inspired a generation of scientists."

Dr. Jessell shares the $25,000 Ralph W. Gerard Prize in Neuroscience with Ben Barres, PhD, a Professor of Neurobiology at Stanford University School of Medicine.

"This award recognizes career-long excellence and dedication by researchers who are fundamentally shaping the field's understanding and future progress," said Dr. Cline.

Dr. Jessell has spent his career building a detailed understanding of how the brain tells the body to move. A Howard Hughes Medical Institute investigator, Dr. Jessell has helped to define how individual neurons communicate and assemble into larger groups of complex circuits that, ultimately, give an organism the ability to perform fine motor tasks — such as typing on a keyboard or playing a violin.

His studies of the underlying mechanisms of movement yield critical insight into age-old scientific questions. Earlier this year, for example, Dr. Jessell and several Zuckerman Institute colleagues identified a method to define the myriad types of neurons in the brain and spinal cord. This advance stands to reveal elements of the underlying architecture through which these neurons shape movement, and could also be applied to other brain regions — providing neuroscientists with a critical tool to quantify the cellular diversity of any region of the brain.

At the ceremony, Dr. Jessell said he was honored to share the prize with Dr. Barres, a pioneer in studying how astrocytes (another type of brain cell) guide the growth of the developing brain — and how dysfunctions in this process could contribute to devastating conditions like Alzheimer's disease.

“It is a privilege to receive this award alongside Ben,” said Dr. Jessell, the Claire Tow Professor of Motor Neuron Disorders in Neuroscience and of Biochemistry and Molecular Biophysics at Columbia University Medical Center. “His contributions are both innovative and game-changing, and you could only observe and behold in awe Ben’s amazing affinity for all things astrocyte.”

Dr. Jessell also acknowledged his family, advisors and students.

“Throughout my career, I’ve benefited from many sources of support — but perhaps none as important as the supremely talented students and postdoctoral researchers whom I’ve worked with this last 35 years,” he said. “Without their insight and tenacity, I can assure you I wouldn’t be here this evening.”

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