LURIE PRIZE IN BIOMEDICAL SCIENCES RECIPIENTS

FNIH
Foundation for the National Institutes of Health

Jeannie T. Lee, M.D., Ph.D., 2016 Recipient

Dr. Lee is an Investigator of the Howard Hughes Medical Institute and Professor of Genetics at Harvard Medical School. Dr. Lee's pioneering work has elucidated how long noncoding RNAs (lncRNAs) control gene expression and chromosome architecture, and how an entire sex chromosome can be turned off. Her work has shown that lncRNAs have a special place in epigenetics regulation, for — unlike proteins — lncRNAs can target biological activities to a unique location in our genome. Dr. Lee has also invented novel methods in RNA therapeutics, such as "RNA-activation," which are opening up new ways of treating diseases from autism to cancer.

Karl Deisseroth, M.D., Ph.D., 2015 Recipient

Dr. Deisseroth is the D.H. Chen Professor of Bioengineering and of Psychiatry and Behavioral Sciences at Stanford University and a Howard Hughes Medical Institute Investigator. He pioneered the field of optogenetics, which has greatly expanded our understanding of normal behavior as well as of diseases like Parkinson's, schizophrenia and depression by combining genetic manipulation and optics to activate or deactivate precisely targeted brain cells. In addition to leading the development of optogenetics, his team also pioneered CLARITY, a chemical engineering method for making biological tissues such as the intact brain fully transparent and accessible, enabling scientists to observe intricate molecular-resolution details within healthy brains as well as brains from Alzheimer's disease and autism patients.

Jennifer Doudna, Ph.D., 2014 Recipient

Dr. Doudna is the Henry Ford II Professor of Molecular Biophysics and Biochemistry at the University of California, Berkeley and a Howard Hughes Medical Institute Investigator. Her research seeks to understand how non-coding RNA molecules control the expression of genetic information and she has published extensively in the field of CRISPR-Cas biology. In 2012, she and her colleagues at UC Berkeley and Sweden discovered CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats), a gene-editing technique that gives researchers the equivalent of a molecular surgery kit for routinely disabling, activating or changing genes.

Ruslan M. Medzhitov, Ph.D., 2013 Recipient

Dr. Medzhitov is the David W. Wallace Professor of Immunobiology at Yale University School of Medicine and a Howard Hughes Medical Institute Investigator. He was awarded the inaugural Lurie Prize in the Biomedical Sciences for seminal discoveries related to the innate immune system, the human body's first line of defense against invading organisms which cause infection. Dr. Medzhitov discovered and characterized a class of proteins called Toll-like receptors that recognize and facilitate the immune response to toxic proteins. He has dramatically expanding our understanding of the key roles Toll-like receptors play in controlling adaptive immunity, infections, chronic inflammation and tumor growth.

In 2013, the FNIH presented the first Lurie Prize in Biomedical Sciences, an annual award of $100,000 recognizing outstanding achievement by a promising young scientist in biomedical research. Any member of an accredited educational and/or scientific institution can nominate a biomedical investigator.
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