

UT Southwestern Medical Center

Zhijian “James” Chen, Ph.D., earns Lasker Award & Paul Ehrlich and Ludwig Darmstaedter Prize for biomedical breakthroughs

Sept. 19, 2024

To the UT Southwestern Community:

We are very pleased to share the news that our esteemed colleague [Zhijian “James” Chen, Ph.D.](#), Professor of Molecular Biology and Director of the Center for Inflammation Research, was today named the recipient of the [Albert Lasker Basic Medical Research Award](#). Dr. Chen is being honored for his discovery of the cGAS enzyme, a breakthrough that solved a pivotal biomedical mystery of how DNA stimulates immune and inflammatory responses and holds promise for therapeutic interventions that target myriad illnesses.

The Lasker Awards are regarded as the preeminent biomedical research prize in the United States. Dr. Chen becomes the fourth UT Southwestern faculty member to earn a Lasker Award, following Nobel Laureates Alfred Gilman, M.D., Ph.D., Michael Brown, M.D., and Joseph Goldstein, M.D.

In addition, earlier this week, Dr. Chen was named a recipient of [the Paul Ehrlich and Ludwig Darmstaedter Prize](#), the most significant medical prize in Germany.

These most recent honors celebrate Dr. Chen’s transformative discoveries and their potential to accelerate the development of new treatments for autoimmune diseases such as lupus, advanced immunotherapies for cancer, and novel approaches for vaccine development. Dr. Chen’s work exemplifies our institution’s decades-long commitment to excellence in basic scientific discovery that can ultimately lead to better treatment and prevention of disease.

Dr. Chen, who was awarded the [Breakthrough Prize](#) in Life Sciences in 2019, studies mechanisms of signal transduction, namely how a cell communicates with its surroundings, detects harmful or foreign insults, and mounts an appropriate response to restore homeostasis. He has identified proteins, such as the mitochondrial protein MAVS, which are crucial to the body’s defense against RNA viruses such as influenza, Ebola, and SARS-CoV-2. Investigations dissecting a signaling pathway involving cyclic GMP-AMP (cGAMP) synthase, or cGAS, have revealed its critical role in immune defense. As Dr. Chen has so aptly described his discovery, “cGAS is like a burglar alarm that is turned on when a danger is detected, and it sets off the body’s defense against viruses, bacteria, and parasites.”

Dr. Chen, who holds the George L. MacGregor Distinguished Chair in Biomedical Science, is a member of both the National Academy of Sciences and the National Academy of Medicine as well as a Howard Hughes Medical Institute Investigator. In addition to the Breakthrough Prize, he has previously received the [Louisa Gross Horwitz Prize](#) (2023), the [William B. Coley Award for Distinguished Research in Basic and Tumor Immunology](#) (2020), the Switzer Prize (2019), and the [Lurie Prize in Biomedical Sciences](#) (2018). At UT Southwestern, he is a member of the Center for the Genetics of Host Defense and the Harold C. Simmons Comprehensive Cancer Center.

The Lasker Award will be presented Sept. 27 in New York City. Dr. Chen will receive the Paul Ehrlich Prize March 14, 2025, at a ceremony in Frankfurt.

Please join us in congratulating Dr. Chen for these impressive and well-deserved honors and for inspiring the next generation of biomedical scientists.

Daniel K. Podolsky, M.D.
President
UT Southwestern Medical Center

W. P. Andrew Lee, M.D.
Executive Vice President for Academic Affairs and Provost
Dean, UT Southwestern Medical School