

**Steven McKnight, Ph.D., earns  
Lasker Award for biomedical discoveries**

September 11, 2025

To the UT Southwestern Community:

We are pleased to share the news that our colleague [Steven McKnight, Ph.D.](#), Professor of [Biochemistry](#) and former long-serving Chair of the Department, [has been awarded](#) the 2025 [Albert Lasker Basic Medical Research Award](#). This recognition reflects his discoveries that have transformed our understanding of fundamental cellular processes – particularly the role of proteins of low sequence complexity and their influence on the dynamics of cell morphology and biological regulation.

The Lasker Awards have long been regarded as the nation's foremost prize for biomedical research, honoring contributions that represent significant advances in our understanding, diagnosis, treatment, cure, and prevention of human disease.

Dr. McKnight's recognition marks the second consecutive year and fifth time that a UT Southwestern scientist has earned a Lasker Award. With this honor, he joins [Zhijian "James" Chen, Ph.D.](#) (2024), Professor of Molecular Biology and Director of the Center for Inflammation Research, and Nobel Laureates Alfred Gilman, M.D., Ph.D. (1989), Michael Brown, M.D. (1985), and Joseph Goldstein, M.D. (1985), as UT Southwestern recipients selected for the importance of their scientific contributions.

Dr. McKnight's studies – focused on proteins of low sequence complexity – have revealed how these disordered proteins can reversibly self-associate to control innumerable forms of dynamic cellular organization. By recognizing the positions of amino acid sequence change caused by Mendelian human mutations, Dr. McKnight was further able to resolve how low complexity proteins can aggregate in a manner that leads to neurologic and neurodegenerative disease. His work over the past three decades has exemplified our institution's commitment to curiosity-driven research by advancing our understanding of cellular and molecular mechanisms, which ultimately inform new approaches to disease treatment.

Over the course of his distinguished career, Dr. McKnight has made seminal discoveries in pursuing a range of important scientific challenges. Prior to the work that has garnered the Lasker Award, his early studies of gene regulation led to the identification of the leucine zipper, a structural motif in transcription factors – proteins that regulate gene expression. This discovery helped clarify how the expression of cellular genes is turned on and off.

Teaming up with [David Russell, Ph.D.](#), Professor Emeritus and former Vice Provost and Dean of Basic Research, Dr. McKnight also discovered the HIF-2 $\alpha$  transcription factor and identified its role in adapting cells and tissues to conditions of oxygen starvation. Working in collaboration with Richard Bruick, Ph.D., and synthetic chemists in the Biochemistry Department at UT Southwestern, Dr. McKnight discovered drug-like compounds capable of inhibiting the HIF-2 $\alpha$  protein. In 2008, UT Southwestern licensed these chemicals to Peloton Therapeutics Inc., a Dallas-based biotechnology company founded by Dr. McKnight. Following extensive

optimization and subsequent clinical trials, the chemical inhibitor of HIF-2 $\alpha$ , designated belzutifan, was approved in 2021 by the Food and Drug Administration as a treatment for kidney cancer.

A former Howard Hughes Medical Institute Investigator, Dr. McKnight, who holds the Distinguished Chair in Basic Biomedical Research, is a member of the National Academy of Sciences, the National Academy of Medicine, and the American Academy of Arts and Sciences. Other honors include the Robert A. Welch Award in Chemistry (2020), the Wiley Prize in Biomedical Sciences (2014), the National Institutes of Health Director's Pioneer Award (2004), the Monsanto Award in Molecular Biology from the National Academy of Sciences (1991), and the Eli Lilly Award from the American Society for Microbiology (1989).

Dr. McKnight shares the 2025 Albert Lasker Basic Medical Research Award with Dirk Görlich, Ph.D., a biochemist and Director of the Max Planck Institute for Multidisciplinary Sciences in Göttingen, Germany. Dr. Görlich is also being honored for his work on proteins of low sequence complexity.

The Lasker Awards will be presented in New York on Sept. 19.

Please join us in congratulating Dr. McKnight on this well-deserved honor. His leadership and discoveries inspire us all and strengthen the culture of excellence and innovation at UT Southwestern.

**Daniel K. Podolsky, M.D.**

President  
UT Southwestern Medical Center

**W. P. Andrew Lee, M.D.**

Executive Vice President for Academic Affairs and Provost  
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