

Laudation - Prof. Gábor J. Tigyi
Semmelweis University Doctor Honoris Causa Award
11 November 2016

Born and raised in Hungary Gábor Tigyi graduated as a medical doctor in his hometown, Pécs, and received his Ph.D. in cellular and molecular neurobiology from the Hungarian Academy of Sciences in Budapest. His postgraduate training was completed at the Max Planck Institute in Germany, the Biomedical Center of the University of Uppsala, Sweden, the Massachusetts Institute of Technology and the University of California, Irvine. Currently, Dr. Tigyi is the Harriett Van Vleet Professor of Physiology at the University of Tennessee Health Science Center, Memphis, where he served as chairman of the Department of Physiology between 2007 and 2016 and has been appointed to Associate Vice Chancellor for Research last month.

Dr. Tigyi's primary scientific interest concerns to physiological and pathophysiological role of lysophospholipid mediators. Since 1987, when he discovered lysophosphatidic acid (LPA) as a bioactive serum factor, his research focuses on the isolation, biochemical structure elucidation, molecular target identification and cellular signaling of LPA and the closely related lipid mediator sphingosine-1-phosphate (S1P). His group has identified sphingosylphosphorylcholine, cyclic phosphatidic acid, and alkenyl glycerophosphate as novel members of the growth factor-like lysophospholipid family.

Since the mid-nineties, Dr. Tigyi's group has been studying the mechanisms of radiation injury to the gut. They have elucidated several signaling pathways involved in the mitigation of radiation injury, and developed and applied novel computational chemical methods for drug discovery. This work yielded several patents and a rationally designed LPA mimetics that is currently being tested in non-human primates and has entered the FDA approval process on the fast track for the treatment of radiation injury. In addition, they have successfully applied high-throughput and *in silico* screening methods to identify nonlipid agonists of LPA receptor subtype 2, which are very effective promoters of cell survival. Dr. Tigyi's group developed several lead compounds, which inhibit LPA production through blocking lysophospholipase D/autotaxin, as well as LPA and S1P receptor antagonists, which inhibit cancer growth and metastasis *in vivo*. He has published over 215 research papers.

Dr. Tigyi has trained over 50 fellows and postdocs who have successfully transitioned into faculty positions in the US, Europe (Hungary, Germany, UK) and Japan. He has intensive scientific collaborations with several institutions world-wide, including the Institute of Clinical Experimental Research at the Semmelweis University.

Dr. Tigyi is External Member of the Hungarian Academy of Sciences and the European Academy of Arts, Letters and Sciences in Paris. Since 2013 he is executive editor of the "Progress in Lipid Research".