

**Ted M. Dawson, MD, PhD** is the Leonard Madlyn Professor of Neurodegenerative Diseases in the Departments of Neurology and Neuroscience and the Graduate Program in Cellular & Molecular and the Institute for Cell Engineering at the Johns Hopkins University School of Medicine. He is the Director of the Johns Hopkins University School of Medicine's Morris K. Udall Parkinson's Disease Research Center of Excellence and Director of the Neuroregeneration and Repair Program in the Institute for Cell Engineering. Dr. Dawson is world-renowned for his novel contributions on the role of nitric oxide in neuronal injury. He has published over 360 full-length manuscripts and review articles. He is one of the top five cited Neuroscientists in the last decade. He has a strong background in neuroanatomy, pharmacology, molecular biology, protein biochemistry, and the use of in vivo and in vitro model systems to study pathogenic mechanisms. Dr. Dawson has won several awards including the Derek Denny-Brown Young Neurological Scholar Award, the Paul Beeson Physician Faculty Scholar Award, the Santiago Grisolia Medal (2001). He was honored in 2000 with the ISI Highly Cited Researcher Award. He is the Chairman of Scientific Advisory Board of the Bachman-Strauss Dystonia and Parkinson Foundation and serves on the Medical Advisory Board (MAB) of the Society for Progressive Supranuclear Palsy (PSP) and he is a member of the Faculty of 1000 Biology Neurobiology of Disease and Regeneration Section of the Neuroscience Faculty. Many advances in neurobiology of disease have stemmed from Dr. Dawson's identification of the mechanisms of neuronal cell death and the elucidation of the molecular mechanisms of neurodegeneration. He pioneered the role of nitric oxide in neuronal injury in stroke and excitotoxicity and elucidated the molecular mechanisms by which nitric oxide and poly (ADP-ribose) polymerase and apoptosis inducing factor kills neurons. His studies of nitric oxide led to major insights into the neurotransmitter functions of this gaseous messenger molecule. He co-discovered the neurotrophic properties of non-immunosuppressant immunophilin ligands. When disease causing genes were identified in rare familial cases of PD, Dawson began investigating the biology and pathobiology of the proteins and mutant proteins linked to Parkinson's disease where he has been at the forefront of this important body of work. Dawson's lab showed that parkin functions as a ubiquitin E3 ligase and his laboratory has identified several important substrates that appear to play prominent roles in the pathogenesis of PD. He also showed that LRRK2 possesses kinase activity and disease causing mutations in LRRK2 lead to cell death that is kinase-dependent. These studies are providing major insights into understanding the pathogenesis of PD and are providing novel opportunities for therapies aimed at preventing the degenerative process of PD.