

Bennett Van Houten, PhD

Dr. Bennett Van Houten is the Richard M. Cyert Professor of Molecular Oncology, in the Department of Pharmacology and Chemical Biology, and a member of the Molecular Biophysics & Structural Biology Graduate faculty. Until June of this year, Dr. Van Houten co-lead with Dr. Patricia Opresko the Genome Stability Program at the UPMC-Hillman Cancer Center, where they oversee a group of 38 faculty studying mechanisms of genome stability and cancer.



Dr. Van Houten is internationally recognized for his pioneering work on structure-function studies of proteins involved in DNA repair pathways in bacterial cells and in the nucleus and mitochondria of human cells. As well as his work in understanding the molecular consequences of DNA damage. His laboratory is currently doing cutting-edge research on the dynamics of how DNA repair proteins assembly and work at sites of DNA in real-time at the single molecule level and is currently supported by a NIEHS Revolutionizing Innovative Visionary Environmental health Research (RIVER) Award R35 ES031638. Dr. Van Houten's talk today will describe how his laboratory uses light to both damage specific genomic regions of the cell and also interrogate fluorescently-labeled proteins in living cells and at the single molecule level as they search for and process specific sites of DNA damage.

Dr. Van Houten received his Bachelor's degree from Clarion University, Pennsylvania in 1980, and his Ph.D. from the University of Tennessee at the Oak Ridge Graduate School of Biomedical Sciences, Tennessee, in 1984. Ben did his postdoctoral training with Professor Aziz Sancar who was recognized with a Nobel Prize for Chemistry in 2015 for his mechanistic insights into DNA repair. Prior to moving to the University of Pittsburgh, Dr. Van Houten was the Chief of the Program Analysis Branch and Senior Investigator in the Laboratory of Molecular Genetics at National Institute of Environmental Health Sciences, NIH from 1999-2008. While at the NIEHS as a science administrator, Dr. Van Houten helped to develop a publication tracking system, Scientific Publication Information Retrieval and Evaluation System (SPIRES), which is now used in NIH RePORTER. He was recognized with five NIH Merit Awards, and a NIH Director's Award, and for his service to science was awarded a Medal of Science by the Slovak Academy of Sciences in 2008, the same year he moved to the University of Pittsburgh. Most recently, due to his outstanding contributions to science, Dr. Van Houten was elected as an American Association for the Advancement of Science (AAAS) Fellow, April 18, 2024.

During his independent career spanning more than three decades, Dr. Van Houten has trained over 45 postdoctoral fellows and graduate students. He holds four patents (three additional applications are pending), and has authored over 275 scientific articles, co-edited a book on DNA damage recognition, two volumes of single-molecule techniques in DNA repair, and has also published 30 book chapters and reviews. He has help organize several international meetings focused on DNA repair and has chaired Gordon Conferences on Genetic Toxicology and Oxidative Stress and disease. He has served as Chair of the NIH Cancer Etiology study section panel. His Web of Science, H-index is 78, with an average of 6.5 publications per year, since his first publication in 1982. Dr. Van Houten currently serves, with Dr. Penny Jeggo, as the Co-Editors in Chief for the journal, *DNA Repair*.