



Hun Taeg Chung

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**Mitochondrial ROS-Mediated PERK Activation
Enhances CO-Induced Ferroptosis Sensitivity
in Cancer Cells**

<Biography>

Hun Taeg Chung, MD, PhD, is a Professor at Daegu Haany University and a distinguished immunologist known for his pioneering work on immunoregulation and gasotransmitter biology. He previously served as Professor at the University of Ulsan (2009–2023) and Wonkwang University (1984–2009), and held several major leadership positions including Dean of Biological Sciences at the University of Ulsan and Director of multiple national research centers including the Bio-Active Gases (BAG) Research Center and the Genome Research Center for Immune Disorders.

Dr. Chung received his B.S. in Medicine from Chonnam National University Medical School and obtained both his M.S. and Ph.D. in Immunology from Chonbuk National University. Since the early stages of his career, he has focused on immune regulation and the mechanisms by which immune cells maintain homeostasis and respond to pathological conditions.

Over several decades, Dr. Chung has made fundamental contributions to understanding the immunoregulatory roles of nitric oxide (NO), carbon monoxide (CO), and other gasotransmitters, revealing how these signaling molecules control inflammation, metabolic disorders, aging, and host defense. His work has elucidated molecular pathways linking oxidative stress, ER stress signaling, and immune metabolism, including the roles of PERK signaling, heme oxygenase-1 (HO-1), and stress response pathways in disease pathogenesis.

His laboratory has also contributed significantly to research on immunometabolism, ferroptosis, autophagy-lysosomal signaling, and metabolic disease, identifying novel mechanisms that regulate hepatic metabolism, neurodegeneration, and inflammatory disorders. These findings have been widely published in leading international journals and have helped establish new therapeutic strategies targeting metabolic inflammation and stress-response signaling pathways.

Dr. Chung has published over 250 international scientific papers and has received numerous prestigious awards, including the Bunsch Medical Award from the Korean Medical Association and the Mok-Am Biological Science Award. He is a member of the Korean Academy of Science and Technology and has served as President of several major scientific societies, including the Korean Society of Cell Biology and the Korean Society of Molecular and Cell Biology.

His current research focuses on immunometabolism and gasotransmitter-mediated signaling networks, aiming to develop novel therapeutic approaches for inflammatory, metabolic, and age-related diseases.