



Daniel J Drucker, MD

Dr. Drucker is an Endocrinologist and Professor of Medicine in the Division of Endocrinology at the Lunenfeld Tanenbaum Research Institute of Mt. Sinai Hospital and the University of Toronto in Toronto, Canada. He holds the Banting and Best Diabetes Centre-Novo Nordisk Chair in Incretin Biology, and a Canada Research Chair in Regulatory Peptides. His discoveries of GLP-1, GLP-2, and dipeptidyl peptidase-4 (DPP-4) activity have enabled the development of multiple new innovative classes of medications for the treatment of diabetes, obesity, and obesity-associated comorbidities. He demonstrated that GLP-1 directly stimulates insulin secretion from pancreatic beta cells.

Over the past 35 years, Drucker has led the field in delineating the importance of GLP-1 action for the control of pancreatic beta cell proliferation and survival, regulation of endoplasmic reticulum (ER) stress, and beta cell plasticity. Drucker is widely recognized for his ongoing contributions to multiple new actions of GLP-1 in the brain, gut, the endocrine and exocrine pancreas, the immune system, and the heart and blood vessels. He played a pivotal role in identifying cardiovascular mechanisms of action for incretin agents, including studies of heart rate, blood pressure, atherosclerosis, inflammation, and cardio

protection, thus laying the scientific groundwork for the exciting results of recent cardiovascular outcome studies.

Collectively, these findings have provided broad support for the development, use, and safety of GLP-1 therapeutics in human subjects with diabetes and obesity, and have identified new disease areas (NASH, CNS disorders such as Parkinson's and Alzheimer's disease) that may benefit from therapy with GLP-1R agonists. He also described the basic mechanisms linking DPP-4 activity to metabolic control. His pioneering studies validated DPP-4 as a drug target and described the importance of DPP-4 for the control of the enteroinsular axis.

A Fellow of the Royal Society, London, Drucker's discoveries have been recognized by numerous scientific and medical societies. He has been honored with one of Time's Time 100 Most Influential People of 2024, the 2023 Wolf Prize in Medicine, the Endocrine Society's 2020 John D. Baxter Prize for Entrepreneurship, a 2009 Clinical Investigator Award, and the 1993 Richard E. Weitzman Memorial Award; the American Diabetes Association's Banting Award; the Claude Bernard Award from the European Foundation for the Study of Diabetes; the Manpei Suzuki International Prize; the Rolf Luft Award from the Karolinska Institute; and the Harrington Prize for Innovation in Medicine. He is also a past editor-in-chief of the peer-reviewed journal *Endocrine Reviews*.