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# The Biology and Pharmacology of Glucagon

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## Message from the Guest Editors

The discovery of insulin and its pharmacology in 1921 was closely followed by that of glucagon in 1923. However, unlike insulin, glucagon action has been historically stigmatized as diabetogenic and its clinical use restricted to rescue from severe hypoglycemia. Hampered by a short half-life and poor solubility in physiological buffers, this glucocentric view of glucagon has overshadowed that glucagon is a pleiotropic hormone with broad biological action not only in the pancreas and the liver but also in the brain, heart, stomach and the white and brown adipose tissue. The diabetogenic view of glucagon is urged by reports that failure of glucose to suppress glucagon secretion can play a pathophysiological role in the development of type 2 diabetes, while blockade of glucagon can ameliorate hyperglycemia in diabetic patient. Ironically, the diabetogenic view of glucagon has recently been challenged by the generation of pharmacotherapies that along with insulinotropic peptides recruit glucagon receptor agonism into the same entity to treat obesity and type 2 diabetes. In this Special Issue, we report the multifaceted nature of glucagon that far beyond its role on glucose metabolism.

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