



Insulin Signaling in Metabolic Homeostasis and Disease

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Message from the Guest Editors

Insulin is a peptide hormone secreted by pancreatic β -cells that functions as a key regulator of metabolic homeostasis and fine-tunes the metabolism of carbohydrates, lipids, and proteins.

The discovery of insulin was a watershed moment in medicine, transforming both the treatment and prognosis of diabetes mellitus. Type 2 diabetes mellitus is a complex disease caused by impaired insulin action mainly in skeletal muscle, liver, and adipose tissue (insulin resistance) and reduced insulin secretion from pancreatic β -cell results. We welcome contributions from researchers in the form of original studies or review articles that address the rapidly growing field of insulin signaling in metabolic health and disease. The topics that will be covered in this Special Issue include but are not limited to diverse signaling mechanisms of insulin, novel players that modulate insulin signaling, insulin and GPCR signaling crosstalk, insulin signaling and mitochondrial dysfunction, molecular mechanism of insulin resistance, and effects of insulin resistance in other related pathologies, such as cardiovascular disease.





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Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies have shown utility for elucidating mechanisms which underlie fundamental biological processes including disease pathology. *Metabolites* is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

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