

Special Issue

Insulin Resistance and Hyperinsulinemia: From Molecular Mechanisms to Clinical Translation

Message from the Guest Editor

Insulin resistance (IR) with associated hyperinsulinemia is a fundamental pathophysiological state at the center of a spectrum of disorders, including type 2 diabetes, obesity, cardiovascular disease, cellular senescence, cancer, and neurodegenerative diseases. Characterized by an impaired cellular response to insulin, IR disrupts glucose homeostasis, lipid metabolism, and inflammatory signaling, and is a driving force in the global health crisis.

This Special Issue, “Insulin Resistance and Hyperinsulinemia: From Molecular Mechanisms to Clinical Translation”, seeks to assemble cutting-edge original research and comprehensive reviews that illuminate the molecular foundations of IR and accelerate translational applications. We welcome submissions exploring the genetic, epigenetic, and environmental factors influencing insulin signaling pathways, as well as studies on the emerging roles of gut microbiota, adipokines, mitochondrial metabolism, and chronic inflammation in the onset and progression of IR.

Guest Editor

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Message from the Editor-in-Chief

Biomedicines (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to *Biomedicines*, be it original research, review articles, or developing Special Issues of current key topics.

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