Special Issue

Metabolic Syndrome and Type 2 Diabetes: From Molecular Pathogenesis to Novel Therapies

Message from the Guest Editor

Metabolic syndrome and type 2 diabetes are closely intertwined conditions that pose significant global health challenges. Metabolic syndrome is characterized by a cluster of factors, including obesity, dyslipidaemia, hypertension, and insulin resistance, which collectively increase the risk of developing type 2 diabetes and cardiovascular diseases. The molecular pathogenesis of type 2 diabetes involves complex interplays between genetic predisposition, lifestyle factors, and metabolic dysregulation, leading to impaired insulin secretion and action. Recent advancements in omics technologies and molecular biology have shed light on the underlying mechanisms, such as gut dysbiosis, chronic inflammation, mitochondrial dysfunction, and altered adipokine signaling. This Special Issue aims to gather cutting-edge research and comprehensive reviews that elucidate the molecular pathogenesis of metabolic syndrome and type 2 diabetes, as well as explore its complications and novel therapeutic strategies.

Guest Editor

Dr. Srinivas Nammi

Discipline of Medical Sciences, School of Science and NICM-Health Research Institute, Western Sydney University, Sydney, NSW 2751, Australia

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomolecules@mdpi.com

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Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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