

Special Issue

Metabolic–Epigenetic Interplay in Healthy and Diseases

Message from the Guest Editor

Metabolites such as acetyl-CoA, NAD⁺, S-adenosylmethionine, and α -ketoglutarate serve not only as essential intermediates but also as substrates and cofactors for chromatin-modifying enzymes, directly linking metabolic states to gene expression profiles. The dysregulation of this interplay has emerged as a critical driver in the pathogenesis of complex diseases, including cancer, neurodegeneration, metabolic syndromes, and aging-related disorders. This Special Issue of the International Journal of Molecular Sciences aims to gather original research and comprehensive reviews that explore the bidirectional relationship between metabolism and epigenetics in both physiological and pathological contexts. We welcome contributions that elucidate novel molecular mechanisms, highlight therapeutic targets, or present integrative omics approaches that expand our understanding of this intricate interface. Through this collection, we seek to advance the field toward innovative strategies for diagnosis, prevention, and treatment based on the metabolic–epigenetic interplay.

Guest Editor

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Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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