

Special Issue

Molecular Insights into Nutrition, Genetics, and Biochemistry: From Mechanisms to Therapeutics

Message from the Guest Editors

Advances in molecular biology and biochemistry are rapidly reshaping our understanding of how genetic factors and nutritional interventions influence health and disease. Genetic predispositions, nutrient–gene interactions, and biochemical pathways collectively determine metabolic balance, disease risk, and therapeutic potential. This Special Issue aims to bring together original research and comprehensive reviews at the intersection of genetics, biochemistry, and nutrition/dietetics, with an emphasis on molecular mechanisms and novel biomarkers.

We welcome submissions exploring, but not limited to, the following topics:

Nutrigenomics and nutrigenetics: Gene–diet interactions shaping metabolism, disease susceptibility, and therapeutic response.

Molecular mechanisms of nutrients and bioactive compounds in modulating oxidative stress, inflammation, lipid and glucose metabolism, and signaling pathways.

Epigenetic regulation by diet: DNA methylation, histone modification, and non-coding RNAs.

Mitochondrial biology and redox regulation in relation to diet and nutrient status.

Multi-omics approaches (genomics, transcriptomics, proteomics...) in nutrition-related research.

Guest Editors

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About the Journal

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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