

Special Issue

Integrative Omics Strategies for Biomarker Discovery and Mechanistic Insights into Disease

Message from the Guest Editor

Recent advances in high-throughput technologies have enabled a systems-level understanding of the molecular complexity underlying human diseases. In particular, integrative omics strategies—encompassing genomics, transcriptomics, proteomics, phosphoproteomics, and metabolomics—have become powerful tools for uncovering novel disease mechanisms, identifying predictive biomarkers, and guiding therapeutic interventions. This Special Issue will focus on innovative studies that combine multiple omics layers to unravel the molecular underpinnings of diseases, with a special emphasis on cancer and therapy resistance. We welcome original research papers and reviews that employ integrative omics approaches to discover new regulatory networks, define cell-state transitions, identify druggable targets, or develop computational frameworks for biomarker prioritization. Studies addressing disease-specific signaling pathways, tumor heterogeneity, immune responses, and therapy-induced adaptations are particularly encouraged, as well as contributions that leverage patient-derived models or clinical datasets to provide translational insights.

Guest Editor

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Deadline for manuscript submissions

30 September 2026



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 5.6
CiteScore 10.0
Indexed in PubMed



mdpi.com/si/246744

*International Journal of
Molecular Sciences*
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Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* 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, and molecular biophysics. *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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