

## Special Issue

# Integrating Metabolism and Molecular Biology in Cancer Research and Therapeutics

### Message from the Guest Editor

Cancer systems biology has revealed profound molecular and metabolic complexity driving tumorigenesis and therapy response. Alterations in oncogenic signaling and metabolic reprogramming of glucose, lipid, and amino acid pathways are hallmarks that support uncontrolled growth, immune evasion, and treatment resistance. These changes are actively driven by cancer cells to meet high demands for energy and biomass, making metabolic pathways promising therapeutic targets. Growing evidence also highlights the crosstalk between tumor metabolism, signaling networks, and the tumor microenvironment, which influences growth, survival under hypoxia or nutrient deprivation, and responses to therapy. Dysregulated DNA damage responses, redox balance, and mitochondrial function further enhance metabolic flexibility and cancer heterogeneity. This Special Issue, “Integrating Metabolism and Molecular Biology in Cancer Research and Therapeutics,” welcomes research that bridges molecular signaling, cancer metabolism, and therapy. Topics include epigenetic regulation, cancer stem cells, resistance, gut microbiota effects, and strategies targeting metabolic vulnerabilities to advance precision medicine.

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### Guest Editor

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### Deadline for manuscript submissions

30 June 2026



## Metabolites

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Impact Factor 3.7  
CiteScore 6.9  
Indexed in PubMed



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## About the Journal

### Message from the Editor-in-Chief

The metabolome is the result of the combined effects of genetic and environmental influences on metabolic processes. Metabolomic studies can provide a global view of metabolism and thereby improve our understanding of the underlying biology. Advances in metabolomic technologies have shown utility for elucidating mechanisms which underlie fundamental biological processes including disease pathology. *Metabolites* is proud to be part of the development of metabolomics and we look forward to working with many of you to publish high quality metabolomic studies.

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### Editor-in-Chief

Dr. Amedeo Lonardo

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.7 days after submission; acceptance to publication is undertaken in 3.6 days (median values for papers published in this journal in the second half of 2025).