

Special Issue

Metabolic and Lipidomic Reprogramming in Cancer: Mechanisms and Therapeutic Potential

Message from the Guest Editors

Cancer cells undergo metabolic and lipidomic reprogramming to sustain proliferation, evade apoptosis, and adapt to changing microenvironments. These alterations reflect a fundamental rewiring of cellular energetics and biosynthetic pathways that directly contribute to malignancy. Recent advances in metabolomic and lipidomic technologies have revealed that shifts in energy metabolism, lipid synthesis and degradation, and signaling pathways are pivotal drivers of oncogenesis and disease progression. This Special Issue focuses on how cancer cells reconfigure their metabolic and lipid profiles in response to genetic, environmental, and therapeutic factors. We welcome research and reviews using metabolomics and lipidomics, including stable isotope tracers, to explore key cancer pathways. Emphasis is on studies investigating metabolic changes due to drug treatments, nutrient availability, and stressors. The goal is to highlight altered metabolic and lipidomic pathways in cancer and support precision oncology through the discovery of diagnostic markers and therapeutic targets.

Guest Editors

Dr. Sara Vicente-Muñoz

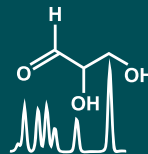
Department of Pathology and Laboratory Medicine, Cincinnati Children's Hospital Medical Center, Cincinnati, OH 45229, USA

Dr. Mariaelena Pistoni

Laboratory of Translational Research, Azienda USL-IRCCS di Reggio Emilia, 42122 Reggio Emilia, Italy

Deadline for manuscript submissions

31 July 2026



Metabolites

an Open Access Journal
by MDPI

Impact Factor 4.5
CiteScore 8.1
Indexed in PubMed



mdpi.com/si/241576

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

[mdpi.com/journal/
metabolites](https://mdpi.com/journal/metabolites)





Metabolites

an Open Access Journal
by MDPI

Impact Factor 4.5
CiteScore 8.1
Indexed in PubMed



[mdpi.com/journal/
metabolites](https://mdpi.com/journal/metabolites)



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.

Editor-in-Chief

Dr. Amedeo Lonardo
Internal Medicine, Ospedale Civile di Baggiovara, Azienda Ospedaliero-
Universitaria, 41126 Modena, Italy

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Endocrinology, Diabetes and Metabolism)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 12.6 days after submission; acceptance to publication is undertaken in 3.7 days (median values for papers published in this journal in the first half of 2026).