Special Issue

Integration of Proteomics and Metabolomics: A Comprehensive Approach to Omics Research

Message from the Guest Editor

The regulatory interplay between metabolism, hub molecules, proteins, and protein modification is known to regulate cellular homeostasis, and alterations can lead to disease development. Cross-omics approaches combining proteomics, metabolomics, and fluxomics are powerful tools to elucidate molecular mechanisms and gain functional insights into cellular homeostasis and pathobiochemical phenotypes. However, combined proteomic and metabolomic analyses remain an analytical challenge. Ideally, metabolite and protein compositions are analyzed simultaneously and are dynamically and spatially resolved. This requires the development of strategies at the level of sample preparation, mass spectrometric acquisition, bioinformatic analysis, computational modelling, and, in particular, data integration. This Special Issue collects papers reporting on the recent developments and applications of innovative approaches in metabolomics, proteomics, and fluxomics, including computational omics, to provide new insights into the molecular aspects of pathophysiology and biochemistry in cellular homeostasis, health, and disease.

Guest Editor

Dr. Marcel Kwiatkowski Institute of Biochemistry, Faculty of Chemistry & Pharmacy, University of Innsbruck, 6020 Innsbruck, Austria

Deadline for manuscript submissions

28 February 2026



an Open Access Journal by MDPI

Impact Factor 3.7 CiteScore 6.9 Indexed in PubMed



mdpi.com/si/220335

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

mdpi.com/journal/







Metabolites

an Open Access Journal by MDPI

Impact Factor 3.7 CiteScore 6.9 Indexed in PubMed



MDPI

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 - Q2 (Endocrinology, Diabetes and Metabolism)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.4 days after submission; acceptance to publication is undertaken in 3.6 days (median values for papers published in this journal in the first half of 2025).