

Special Issue

Molecular Studies on the Impact of Microbiome on Anticancer Drug Resistance

Message from the Guest Editors

Recent studies highlight the critical role of the microbiome in modulating the efficacy and resistance of anticancer therapies. As cancer remains a significant global health burden, understanding the molecular interactions between the microbiome and anticancer drugs could unveil novel strategies to overcome drug resistance. This Special Issue titled “Molecular Studies on the Impact of Microbiome on Anticancer Drug Resistance” aims to gather original research and comprehensive reviews that delve into these complex interactions. We invite contributions that explore how microbiome composition, metabolic pathways, and microbial-derived molecules affect cancer cell responses to therapies. Topics of interest include, but are not limited to, the role of microbial metabolites, immune modulation by microbiota, microbiome-influenced drug metabolism, and the identification of microbiome-based biomarkers for therapy resistance.

This issue also welcomes studies examining how targeted manipulation of the microbiome composition and its metabolites might improve therapeutic outcomes or reduce side effects.

Guest Editors

Dr. Francesca Benedetti

Department of Internal Medicine, Morsani College of Medicine,
University of South Florida, Tampa, FL 33612, USA

Dr. Davide Zella

Department of Internal Medicine, Morsani College of Medicine,
University of South Florida, Tampa, FL 33612, USA

Deadline for manuscript submissions

20 November 2025



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/222153

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

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





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



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



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.

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences,
Sez-Biochimica, Faculty of Medicine, Università Politecnica delle
Marche, Via Ranieri 65, 60100 Ancona, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

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

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore
- Q1 (Organic Chemistry)