

## Special Issue

# The Microbiota and Its Association with Cellular Transformation and Metabolic Changes, 2nd Edition

### Message from the Guest Editors

In recent years, scientists have made significant discoveries concerning the link between human microbiota and both human cancers and metabolic changes. New findings suggest altered immune responses, metabolism shifts, and dysregulated kinase activation, which potentially impairs cellular signal transduction. In vitro studies also revealed that certain bacteria can drive epigenetic changes, and stimulate the production of inflammatory substances that may cause DNA damage. In vivo experiments have demonstrated that administering cancer-causing agents to germ-free animals results in less tumor formation compared to non-germ-free mice. However, the exact mechanisms of cellular transformation remain largely mysterious. This Special Issue aims to gather original research articles and review papers exploring any aspect of the interaction between the human microbiota and host cells. The focus is on the description and elucidation of the potential molecular mechanisms that may promote cellular transformation and metabolic changes, we also encourage the submission of papers examining its effects on cardiovascular diseases, diabetes, and reproductive issues, among others.

---

### Guest Editors

Dr. Davide Zella

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

Dr. Francesca Benedetti

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

---

### Deadline for manuscript submissions

closed (20 June 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/179424](https://mdpi.com/si/179424)

*International Journal of  
Molecular Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto: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/](https://mdpi.com/journal/ijms)

[ijms](https://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)