

## Special Issue

# Multimic Approaches in the Microbiome and Microbial Ecology of Health and Disease

### Message from the Guest Editors

Advances in microbiome research have provided insights into microbial taxonomic membership and microbial ecology in health and various disease phenotypes. The field has also benefited from the application of other 'omics including meta- (transcriptomics), meta- (proteomics) and metabolomics for the characterization of transcriptional and translational activities within microbial communities. Most microbiome studies, thus far, have applied a single-omics approach, and few have shown the utility of combining various 'omics datasets to understand microbial membership and function. Challenges exist for multimics data generation, integration, normalization, database selection, data storage and dissemination. The present Special Issue welcomes studies of the microbiome as well as the microbial ecology of health and disease using multimics approaches. Sample types may include, but are not limited to those originating from human, animal or environment (e.g., built, soil, water and wastewater). Articles describing one or several of the mentioned challenges in the field of multimics are also welcomed.

### Guest Editors

Dr. Gary A. Toranzos

Environmental Microbiology Laboratory, Biology Department, University of Puerto Rico, San Juan, PR 00932, USA

Dr. Tasha M. Santiago-Rodríguez

Diversigen Inc., 2450 Holcombe Blvd, Suite BCMA, Houston, TX 77021, USA

### Deadline for manuscript submissions

closed (30 April 2022)



## International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/si/86523](https://mdpi.com/si/86523)

*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/  
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)