



## **Towards Next-Frontier Patients-on-Chip as In Vitro Avatars for Personalised Medicine**

Guest Editors:

**Dr. Adele De Ninno**

CNR-Istituto di Fotonica e  
Nanotecnologie, Via Fosso del  
Cavaliere 100, 00133 Roma, Italy

**Dr. Luca Businaro**

CNR-Istituto di Fotonica e  
Nanotecnologie, Via Fosso del  
Cavaliere 100, 00133 Roma, Italy

Deadline for manuscript  
submissions:

**closed (30 November 2023)**

### **Message from the Guest Editors**

Dear Colleagues,

How can we boost precision or personalized medicine translating patients on chip? How can we increase the predictability of clinical outcomes?

Organ-on-a-chip technology plays a cutting-edge role in increasing the physiological relevance and level of clinical mimicry of smart human-relevant coculture methods with potential enhanced predictive capability of response to foods, radiation, drugs, toxins, and infectious pathogens. Several systems are now available in the market.

This Special Issue will target novel organ-on-a-chip with different biological sample sourcing (e.g., organoids, spheroids, iPS cells, biopsies) and with applications ranging from drug discovery and disease modeling to regenerative medicine.

Reports are welcome focusing on innovations in design and manufacturing (i.e., microfabrication, 3D bioprinting, tissue engineering techniques) or data acquisition (microscopy, spectroscopy, omics-technologies, in-line sensoristics) or data processing (AI-assisted analysis and in silico mathematical models).

Dr. Adele De Ninno

Dr. Luca Businaro

*Guest Editors*





an Open Access Journal by MDPI

## 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

## 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.

## 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 & Molecular Biology*) / CiteScore - Q1 (*Inorganic Chemistry*)

## Contact Us

*International Journal of Molecular  
Sciences* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/ijms  
ijms@mdpi.com  
X@IJMS\_MDPI