



## Natural Product-Derived Compounds for Targeting Multidrug Resistance in Cancer and Microorganisms

Guest Editor:

**Prof. Dr. Maria José Umbelino Ferreira**

Research Institute for Medicines (iMed.U.Lisboa), Faculty of Pharmacy, University of Lisbon, 1649-004 Lisboa, Portugal

Deadline for manuscript submissions:

**closed (31 May 2023)**

### Message from the Guest Editor

As is widely known, cancer is a major burden of disease globally. Multidrug resistance (MDR) is one of the main impairments in successful cancer chemotherapy. Similarly, the rise and spread of antimicrobial resistance, which may occur in bacteria, viruses, fungi, and parasites, is one of the most important public health threats worldwide, leading to a cause of death. Although resistance in cancer and microorganisms can arise owing to multiple factors, drug efflux, by transporter proteins, is one of the major reasons for the MDR phenotype. Natural products, characterized by huge chemical diversity and privileged scaffolds, coupled with biological activities, have long been playing a decisive role in drug discovery and development, namely to treat cancer and infectious diseases. Today, many natural product-derived compounds have shown promising potential as MDR reversers, in both resistant cancer cells and microorganisms, this Special Issue invites researchers to contribute with original research or updated review articles focused on relevant natural compounds, obtained by isolation from natural sources, or semisynthetic derivatives, as MDR reversers in cancer and infectious diseases.





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 and Molecular Biology) / CiteScore - Q1 (Inorganic Chemistry)

## Contact Us

---

*International Journal of Molecular  
Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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

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