

## Special Issue

# Green Synthesis of Biomaterials Using Plant Extracts with Potential Application in Medicine and Biotechnology

### Message from the Guest Editor

The emergence of multidrug-resistant microorganisms poses a global public health concern due to the misuse and overused of antibiotics. In order to mitigate this problem, researchers have been investigating the therapeutic potential of biomaterials as antimicrobial agents. These biomaterials can be synthesized using either chemical, physical, or environmentally friendly (green synthesis) methods. Among these, green synthesis using biological resources is considered a more economical, rapid, and environmentally friendly method for mitigating the drawbacks of chemical and physical methods. This Special Issue focuses on recent advances in the use of renewable resources, such as plant-derived polymers and bio-based monomers, for the synthesis of environmentally friendly biomaterials. In addition, it covers the physicochemical properties essential for the rapid and efficient synthesis of stable high-yield biomaterials, including their antimicrobial activity, mode of action, and potential applications. Original research articles, reviews, and perspectives from experts in the field are welcome.

### Guest Editor

Dr. Divine Yufetar Shyntum

Biotechnology Center, Silesian University of Technology, 44-100 Gliwice, Poland

### Deadline for manuscript submissions

30 April 2026



## International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/si/255951](https://mdpi.com/si/255951)

*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)