

## Special Issue

# Emerging Topics in Molecular Biology and Plant Biotechnology: Innovations and Applications

### Message from the Guest Editor

The field of molecular biology and plant biotechnology is rapidly evolving, driven by groundbreaking advancements in technology and their transformative applications. This Special Issue, *Emerging Frontiers in Molecular Biology and Plant Biotechnology: Innovations and Applications*, will highlight the latest innovations, methodologies, and tools shaping this dynamic discipline. We encourage submissions highlighting recent breakthroughs in genome editing (e.g., CRISPR/Cas systems); high-throughput sequencing technologies; multi-omics approaches such as transcriptomics, metabolomics, and proteomics; and applications of AI and machine learning in molecular biology. Research exploring advancements in plant biotechnology, including but not limited to tissue culture techniques and genetic/plant transformation, is especially welcome. This Special Issue also seeks studies addressing practical applications, including stress-tolerant crop development, biofortification, precision breeding, and innovations in sustainable agricultural practices. Interdisciplinary approaches that bridge computational tools with experimental biology to unlock new insights are highly encouraged.

### Guest Editor

Dr. Ramin Bahmani

Department of Plant Food and Environmental Sciences, Dalhousie University, Halifax, NS B3H 4R2, Canada

### Deadline for manuscript submissions

10 January 2026



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/229396](https://mdpi.com/si/229396)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

[mdpi.com/journal/  
appls](https://mdpi.com/journal/appls)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, 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), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )