



## Cellular and Molecular Regulatory Signals in Root Growth and Development

Guest Editor:

**Prof. Dr. Guzel Kudoyarova**

Laboratory of Plant Physiology,  
Ufa Institute of Biology of the  
Russian Academy of Sciences,  
Ufa 450054, Russia

Deadline for manuscript  
submissions:

**20 September 2024**

### Message from the Guest Editor

Responses of root growth and development to environmental changes ensure adequate adaptation of plants to availability of water and nutrients. For example, accelerating root elongation allows them to reach deeper soil layers, where water is still stored during drought, when the top layers become dry. Increased root branching in the soil patches enriched with mineral nutrients facilitates their acquisition by plants. These types of responses are initiated by environmental signals that induce and interact with endogenous signals resulting in the changes in division, elongation and differentiation of root cells. Although the complicated net of these signals has been thoroughly studied, many questions still remain unanswered. Therefore we invite researchers to submit their experimental and review articles to the present Special Issue





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