

Special Issue

Uncovering the Mechanisms of Plant Salinity Stress Response and Tolerance

Message from the Guest Editor

Soil salinity is one of the main causes of crop yield reduction and plant species distribution around the world. Plants have developed a wide range of mechanisms to cope with soil salinity, ranging from physiological to molecular ones. Salinity effects on plants can be divided into osmotic and toxic ones. Therefore, responses of plants to salinity resemble that against drought stress, but there are other specific responses to salt stress such as toxic ion detoxification. Although the responses of plants to salinity have been extensively studied in the last decades, more research is still needed to understand how plants respond and tolerate salt stress.

This Special Issue aims to advance the knowledge of the mechanisms underlying the response and tolerance of plants to salt stress. Ideally, manuscripts should deal with physiological (water relations, photosynthesis, nutrient uptake and assimilation, etc.), biochemical (antioxidant systems, primary and secondary metabolism, hormonal changes, etc.) and molecular (gene expression, genetic resources, transgenic plants, molecular signaling, etc.) responses.

Guest Editor

Dr. Ricardo Aroca

Department of Soil and Plant Microbiology, EEZ-CSIC (Estación Experimental del Zaidín-Consejo Superior de Investigaciones Científicas), E-18100 Granada, Spain

Deadline for manuscript submissions

closed (1 July 2025)



Biology

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 7.4
Indexed in PubMed



mdpi.com/si/193031

Biology
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biology@mdpi.com

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





Biology

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 7.4
Indexed in PubMed



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



About the Journal

Message from the Editorial Board

A major strength of biological science is the diversity of approaches that biological scientists apply to their research problems. *Biology* reflects this diversity and brings together studies employing the varied experimental and theoretical approaches that are fueling biological discovery. *Biology*, the journal, is a fully peer-reviewed publication with a rapid and economical route to open access publication and is listed on PubMed. All articles are peer-reviewed and the editorial focus is on determining that the work is scientifically sound rather than trying to predict its future impact.

Editors-in-Chief

Prof. Dr. Jukka Finne

Research Programme in Molecular and Integrative Biosciences, Faculty of Biological and Environmental Sciences, University of Helsinki, P.O. Box 56, FI-00014 Helsinki, Finland

Prof. Dr. Andrés Moya

Integrative Systems Biology Institute, University of Valencia and CSIC, 46980 Valencia, Spain

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biology) / CiteScore - Q1 (General Agricultural and Biological Sciences)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the second half of 2025).