Special Issue

Membrane Dynamics and the Role of Aquaporins in Plant Cells

Message from the Guest Editor

Aquaporins, integral membrane proteins that facilitate the rapid transport of water and, in some cases, other small molecules across cellular membranes, are critical for various physiological processes in plants. These include growth, development, stress responses, and nutrient acquisition. The dynamics of membrane trafficking and the regulation of aquaporin activity are therefore central to understanding plant health, adaptation and productivity. This Special Issue welcomes reviews and original research articles dealing with the molecular mechanisms that govern aquaporin function and the cellular and physiological implications of their regulation. Our special issue aims to provide a comprehensive overview of the intricate processes that govern membrane behavior and the pivotal role of aquaporins in plant cellular functions. Join us as we uncover the complexities of membrane dynamics and the essential role of aquaporins in shaping the vitality and resilience of plant life.

Guest Editor

Dr. Farzana Sabir

1. Linking Landscape, Environment, Agriculture and Food (LEAF), Departmento de Recursos Biológicos, Ambiente e Território (DRAT), Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, 1349-017 Lisbon, Portugal
2. Research Institute for Medicines (iMed.ULisboa), Faculty of Pharmacy, Universidade de Lisboa, 1649-003 Lisbon, Portugal

Deadline for manuscript submissions

28 February 2026

Cells

an Open Access Journal by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed

mdpi.com/si/218778

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

mdpi.com/journal/cells

Cells

an Open Access Journal by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed

mdpi.com/journal/cells

About the Journal

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

Editors-in-Chief

Dr. Alexander E. Kalyuzhny
Dental Basic Sciences, University of Minnesota, 308 Harvard St. SE, Minneapolis, MN 55455, USA

Prof. Dr. Cord Brakebusch
Biotech Research & Innovation Centre, The University of Copenhagen, Copenhagen, Denmark

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Cell Biology) / CiteScore - Q1 (General Biochemistry, Genetics and Molecular Biology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).