

Special Issue

Research on Plant Cell Wall Biology

Message from the Guest Editors

Plant cells walls are highly variable between species and organs and during plant development. Primary cell walls are mainly composed of polysaccharides, but they also contain a large diversity of peptides and cell wall proteins (CWPs). These latter are critical players in cell wall dynamic processes. They are capable of sensing the cell wall structure changes and accordingly convert them to signals triggering appropriate physiological responses. Secondary cell walls may contain aromatic polymers which contribute to cell wall rigidification and cell death for particular tissues. The sensing of cell wall integrity, in order to balance and restore cell wall homeostasis, is still puzzling. Another fascinating subject concerns the cell wall dynamics and constraints during lateral organ formation. Indeed, cell walls which are necessary to maintain cell structure and integrity in response to cell turgescence need to be locally loosened to allow lateral organ emergence. To summarize, the plant cell wall is a solid, plastic, intelligent exoskeleton capable of sensing and responding to all types of stimuli. **Keywords** cell wall proteins dynamics integrity plasticity signaling

Guest Editors

Prof. Dr. Christophe Dunand

Laboratoire de Recherche en Sciences Végétales, UPS, UMR 5546, Université de Toulouse, Castanet-Tolosan, France

Dr. Elisabeth Jamet

Laboratoire de Recherche en Sciences Végétales, Université de Toulouse, CNRS, UPS, 24 Chemin de Borde Rouge, 31320 Auzeville-Tolosane, France

Deadline for manuscript submissions

closed (31 January 2022)



Cells

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed



mdpi.com/si/45110

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

[mdpi.com/journal/
cells](https://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](https://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 15.5 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).