

Special Issue

New Insights into Channelopathies

Message from the Guest Editors

Several gastrointestinal (GI) tract abnormalities, including visceral hypersensitivity, motility, and intestinal permeability alterations, have been implicated in functional GI disorders (FGIDs). Ion channels play a crucial role in all these functions. Channelopathies in gastroenterology are gaining a strong interest, and the evidence of co-relationships is increasing. For instance, mutations in the ABCC7/CFTR gene have been described as a cause of constipation and diarrhea, whereas mutations of the SCN5A gene are instead associated with irritable bowel syndrome. Furthermore, mutations of the TRPV1 and TRPA genes manifest hypersensitivity and visceral pain in sensory nerves. Recently, mice and humans affected by Cantu syndrome, which is associated with mutations of the KCNJ8 and ABCC9 genes encoding for the Kir6.1 and SUR2 subunits, showed severe dysfunction of contractility throughout the intestine. The discovery of a correlation between channelopathies and FGIDs opens new avenues for discovering new direct drug targets for specific channelopathies, holding significant implications for diagnosing and treating functional GI diseases.

Guest Editors

Prof. Dr. Domenico Tricarico

Section of Pharmacology, Department of Pharmacy-Pharmaceutical Sciences, University of Bari, Via Orabona 4, 70125 Bari, Italy

Dr. Fatima Maqoud

Functional Gastrointestinal Disorders Research Group, National Institute of Gastroenterology IRCCS "Saverio de Bellis", 70013 Castellana Grotte, BA, Italy

Deadline for manuscript submissions

closed (28 February 2025)



Cells

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed



mdpi.com/si/205313

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, CAPus / 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).