



cells



an Open Access Journal by MDPI

New Insights into Channelopathies

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 Maquod

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

Deadline for manuscript
submissions:

28 February 2025

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 FIGDs opens new avenues for discovering new direct drug targets for specific channelopathies, holding significant implications for diagnosing and treating functional GI diseases.



mdpi.com/si/205313

Special Issue



cells



an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Alexander E. Kalyuzhny

Neuroscience, UMN Twin Cities,
6-145 Jackson Hall, 321 Church St
SE, Minneapolis, MN 55455, USA

Prof. Dr. Cord Brakebusch

Biotech Research & Innovation
Centre, The University of
Copenhagen, Copenhagen,
Denmark

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.

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](#), [MEDLINE](#), [PMC](#), [CAPlus / SciFinder](#), and [other databases](#).

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

Contact Us

Cells Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/cells
cells@mdpi.com
[X@Cells_MDPI](#)