

## Special Issue

# Emerging Roles of Multifunctional Aquaporin Channels

### Message from the Guest Editor

Aquaporins are multifunctional proteins that serve essential biological functions in bacteria, protista, plants, and animals. More than simple water channels, aquaporins display an array of properties that still remain to be fully characterized. The expanding roster of permeable substrates includes not only water and glycerol but also urea, ammonia, nitric oxide, hydrogen peroxide, ions, gases, and other molecules. Regulation via signaling pathways and partnerships with other proteins add further complexity. The emerging roles of these channels in mediating diverse functions have catalyzed important areas of current research interest in topics spanning a broad array of processes, including fluid homeostasis, signal transduction, sensation, development, metabolism, barrier function, motility, pathology, and others, with likely many additional roles yet to be discovered.

---

### Guest Editor

Prof. Andrea J. Yool

School of Biomedicine, The University of Adelaide, Adelaide, Australia

---

### Deadline for manuscript submissions

closed (31 March 2024)



## Biomedicines

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.9  
CiteScore 6.8  
Indexed in PubMed



[mdpi.com/si/175960](https://mdpi.com/si/175960)

*Biomedicines*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[biomedicines@mdpi.com](mailto:biomedicines@mdpi.com)

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





# Biomedicines

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.9  
CiteScore 6.8  
Indexed in PubMed



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



## About the Journal

### Message from the Editor-in-Chief

*Biomedicines* (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to *Biomedicines*, be it original research, review articles, or developing Special Issues of current key topics.

---

### Editor-in-Chief

Prof. Dr. Felipe Fregni

1. Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

---

### Author Benefits

#### High Visibility:

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

#### Journal Rank:

JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q1 (Medicine (miscellaneous))

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).