Special Issue

Therapeutic Aspects of Gasotransmitters in Cardiovascular and Renal Disease 2.0

Message from the Guest Editors

Gasotransmitters (NO, CO and H2S) are protective in various conditions because of their vasodilatory, anti-inflammatory, antioxidant, and antifibrotic characteristics. They exert their effects via signal transduction via guanylate cyclase and cGMP in many tissues. Another protective pathway involves signaling via the Nrf2/keap1pathway. Moreover, all three gasotransmitters inhibit mitochondrial respiration and reduce ROS production.

Well-known pharmacological strategies involving NO include NO donors for pulmonary hypertension and phosphodiesterase inhibitors for erectile dysfunction. This Special Issue focuses on Therapeutic Aspects of Gasotransmitters in Cardiovascular and Renal Disease. Different donor compounds have a wide range of kinetics. Various compounds target signaling pathways. Tolerance is well-recognized for NO donors but has barely been addressed for CO. Data on thiosulfate tolerance have recently been reported. The interdependency of cardiac, renal, and vascular function, as well as their involvement in systemic conditions, such as diabetes and pre-eclampsia, encourage an integrative systems approach. Original studies and reviews are all welcome.

Guest Editors

Prof. Dr. Jaap A. Joles

Department of Nephrology and Hypertension, University Medical Center Utrecht, 3584 CX, Utrecht, The Netherlands

Prof. Dr. Harry van Goor

Department of Pathology and Medical Biology, University Medical Center Groningen, University of Groningen, 9713 GZ Groningen, The Netherlands

Deadline for manuscript submissions

closed (15 November 2022)



International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed



mdpi.com/si/70873

International Journal of Molecular Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ijms@mdpi.com

mdpi.com/journal/ ijms





International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed





Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

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, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)

