Special Issue

Targeting TRP Channels for Pain, Itch and Inflammation Relief

Message from the Guest Editors

Transient Receptor Potential (TRP) channels are multifunctional signaling molecules with important roles in sensory perception and cellular physiology. More than two decades of intensive preclinical and clinical research supports the involvement of TRP channels in pain, itch, and neurogenic inflammation. In fact, a number of potent small molecule TRPA1 and TRPV1 antagonists have already been advanced into clinical trials for the treatment of inflammatory and neuropathic pain. Other TRP channels (e.g. TRPV2, TRPV3, TRPM2, TRPM3. TRPM8 and TRPC4/C5) are also of significant interest. This Special Issue will review the preclinical promise and therapeutic value of TRP channel modulators aimed both established and emerging targets, along with the challenges that these compounds may face in clinical practice. Experimental and clinical studies with pain, itch and inflammation will be discussed, along with the emerging roles of TRP gene polymorphism and epigenetic regulation in disease risk and altered sensory perception. Critical review articles of old concepts and new thoughts are also welcome for consideration.

Guest Editors

Dr. Arpad Szallasi

Department of Pathology and Experimental Cancer Research, Faculty of Medicine, Semmelweis University, 1088 Budapest, Hungary

Dr. Ari-Pekka Koivisto

Research and Development, Orion Pharma, Orion Corporation, 20360 Turku, Finland

Deadline for manuscript submissions

closed (30 August 2023)



International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9 CiteScore 9.0 Indexed in PubMed



mdpi.com/si/137439

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)

