Special Issue

Ca^{2+}-Activated Chloride Channels and Phospholipid Scramblases

Message from the Guest Editors

TMEM16A/Ano1 and TMEM16B/Ano2 form Ca2+ -activated Cl– channels that are involved in a variety of physiological functions, such as transepithelial ion transport, olfaction, phototransduction, smooth muscle contraction, nociception, cell proliferation and neuronal excitability.

Despite sharing a similar structural organization, other members of the TMEM16/Anoctamin family have a completely different molecular function: these so-called Ca2+ dependent phospholipid scramblases mediate the passive transfer of phospholipids between the leaflets of the membrane bilayer, causing the regulated collapse of membrane asymmetry. Mutations in several TMEM16/Anoctamin genes, TMEM16C/Ano3, TMEM16E/Ano5, TMEM16F/Ano6 and TMEM16K/Ano10, cause various genetic diseases, however their molecular physio-pathology is not established yet.

Following the recent progress on this unique protein family and with new techniques becoming available, these are exciting times to study all aspects of TMEM16 physiology.

This Special Issue calls for original research, full reviews, and perspectives that address the current knowledge in the field of Ca2+-activated chloride channels and scramblases.

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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

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