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Lipid Regulation of Ion Channels and Transporters

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Deadline for manuscript submissions:
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Message from the Guest Editors

Membrane proteins are interfaced with a highly complex and heterogeneous lipid environment. There are abundant non-phospholipids and fatty acids in cell membranes, among which cholesterol alone accounts for about 20% of total lipids in animal cell plasma membranes. Moreover, these complex membrane compositions further generate high-order dynamic organizations of lipids (e.g., lipid rafts, protein islands, and other lateral nanodomains of specific lipid composition) and create intricate lipid properties such as membrane curvature and fluctuations, interleaflet coupling, bilayer asymmetry, and hydrophobic mismatch. Many, if not all, of these lipid properties have been implicated in protein activity. In particular, there has been growing appreciation in the last decades that lipids can specifically bind to membrane proteins much like ligands to influence protein biological functions, in addition to altering the physical properties of the lipid bilayer (e.g., fluidity, tension, or hydrophobic defects). This Special Issue calls for papers examining all aspects of protein–lipid interactions, with a focus on ion channels and transporters.

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Message from the Editor-in-Chief

You are cordially invited to contribute a research article or a comprehensive review for consideration and publication in *Membranes* (ISSN 2077-0375).

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