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Molecular Simulations of Biomembranes: From Biophysics Fundamentals to Biological Function

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Deadline for manuscript submissions:
closed (10 January 2023)

Message from the Guest Editors

Biophysics fundamentals, such as interactions among membrane lipids and proteins, bilayer elasticity addressing the fluctuations in the physical barrier's structure and geometry, and dielectric conditions of the membrane hydrophobic core and hydrophilic surfaces need to be considered to properly understand membrane functions. Classical and quantum mechanical tunnelling through ion channels spanning across the bilayer thickness have been explored recently, generating a great deal of interest.

This Special Issue encourages contributions from biophysicists, biologists, biochemists, pharmaceutical scientists, medical scientists, agricultural scientists, plant biologists, biomedical engineers, and researchers in related disciplines who actively employ simulations, computations, and experimental investigations including in silico, in vitro and in vivo assays and modelling to investigate diverse biomembrane functions. We seek articles regarding the structure and functions of plasma, nuclear and mitochondrial membranes, and any related aspects.

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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).

Membranes is an international, peer-reviewed open accessjournal of membrane technology published monthly online by MDPI. The journal covers the broad aspects of the science and technology of both biological and non-biological membranes, including membrane dynamics and the preparation and characterization of membranes and their applications in water, environment, energy, and food industries. Articles contributing to better understanding of transport processes in all types of membranes are also welcome. The scientific community and the general public have unlimited and free access to the content as soon as it is published. We would be pleased to welcome you as one of our authors.

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