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Modeling and Simulation of Lipid Membranes

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Message from the Guest Editors

Dear Colleagues,

Membranes are highly complex, dynamic structures that are absolutely fundamental to life, forming the most relevant interface in biology. They are composed of a wide variety of elements, such as lipids, sterols, and proteins, each of them playing a key role in membrane function. The knowledge of the structure, energetics, and dynamic properties of biomembranes has become one of most important challenges in biophysics.

The use of different computational techniques and modeling approaches, combining computer simulations with available experimental data, will provide such information and let us learn at different levels—from atomic resolution to coarse-grained models—unknown details about the microscopic interactions that play a role in membrane structure and dynamics.

This Special Issue aims to gather new key contributions to the field and also give an overview about the connection between experiments and computer simulations, addressing fundamental aspects and applied research in biological membranes, with particular attention paid to the applications of modeling and simulation to biomedicine.



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Special Issue



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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 access journal 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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