



Membrane Organization and Protein—Lipid Interactions

Guest Editors:

Dr. Priyanka (Pri) Prakash

Frederick National Laboratory for
Cancer Research (FNLRCR),
Frederick, MD 21702, USA

Dr. Yong Zhou

1. Department of Integrative
Biology and Pharmacology,
McGovern Medical School,
University of Texas Health
Science Center, Houston, TX
77030, USA
2. Biochemistry and Cell Biology
Program, Graduate School of
Biomedical Sciences, MD
Anderson Cancer Center and
University of Texas, Houston, TX
77030, USA

Deadline for manuscript
submissions:

closed (15 February 2022)

Message from the Guest Editors

Mounting evidence from super-resolution imaging, quantitative fluorescence imaging, and fractionation assays suggests that biomembranes are highly compartmentalized, with lipids and proteins laterally segregated into nanometer- and/or micrometer-sized domains. Localized enrichment of specific molecules within these membrane domains is one of the key factors for how membrane confers the nonpassive role. Currently, several important questions remain under investigation:

- How do lipids and membrane proteins undergo spatial segregation in the formation of these membrane domains?
- Do proteolipid assemblies act as signaling platforms to assemble key signaling constituents into scaffolds?
- Do lipids directly participate in the membrane binding and activation of proteins?
- How do the lipids and other membrane constituents influence the conformational dynamics of membrane proteins?
- How does membrane-induced conformation/orientation alter the activation states of a protein, their effector recruitment, and oligomerization states?
- How do membrane domains contribute to cell function?

We welcome original articles and reviews with focus on the above points.

Special Issue





an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Peter E. Nielsen

Department of Cellular and
Molecular Medicine, Faculty of
Health and Medical Sciences,
University of Copenhagen,
Blegdamsvej 3C, DK-2200
Copenhagen, Denmark

Prof. Dr. Lukasz Kurgan

Department of Computer
Science, Virginia Commonwealth
University, Richmond, VA 23284,
USA

Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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, MEDLINE, PMC, Embase, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q1 (*Biochemistry & Molecular Biology*) / CiteScore - Q1 (*Biochemistry*)

Contact Us

Biomolecules Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/biomolecules
biomolecules@mdpi.com
[X@Biomol_MDPI](https://twitter.com/Biomol_MDPI)