Special Issue

Non-canonical Functions of Membrane Proteins: Novel Opportunities for Drug Discovery

Message from the Guest Editor

Membrane proteins and cell-surface-associated biomolecules have a diverse range of well-established and classically characterized functions that help cells to communicate, maintain their shape, respond to various stimuli, and transport innumerable biomolecules in and out of the cell. In addition to these established activities, a number of membrane molecules possess alternative noncanonical features, which simultaneously perform multiple autonomous and often unrelated activities executed by distinct domains and motifs. Their discovery led to a resurrection of scientifically long-forgotten membrane molecules, thereby increasing their attractiveness as novel drug targets for human diseases.

Although a number of multitasking membrane proteins have recently been identified, thereby improving our understanding of cellular diversity and complexity, several noncanonical protein functions remain to be uncovered. Hence, identification and comprehensive analysis of these functional features will lead to important new insights into molecular mechanisms of human diseases and improved drug discovery strategies to produce novel therapeutics.

Guest Editor

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Biomedicines (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to Biomedicines, be it original research, review articles, or developing Special Issues of current key topics.

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