

Special Issue

Advances in Protein–Ligand Interactions

Message from the Guest Editor

Protein–ligand interactions are fundamental molecular phenomena in organisms. Proteins, which play important roles in various biological functions, depend on highly specific interactions with ligands to carry out their activities.

Protein–ligand interactions can exhibit remarkable specificity and efficiency, involving diverse types of ligands such as proteins, nucleic acids, lipids, small molecules, substrates, allosteric modulators, inhibitors, and drugs. These interactions play crucial roles in regulating signal transduction within cells, controlling metabolic pathways, facilitating physiological processes, and contributing to pathophysiological conditions. Therefore, comprehending the mechanisms underlying protein–ligand interactions, including their atomic-level binding modalities, conformational flexibility, and mutational effects, holds immense significance for drug design and advancements in biotechnology.

Contributions are invited that shed light on the importance of these interactions in biomedicine and molecular pathology, as well as their applications in biotechnology and the food industry.

Guest Editor

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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