

Special Issue

Advances in Molecular Biophysics of Protein-Protein Interactions

Message from the Guest Editors

Protein–protein interactions (PPIs) play a critical role in biological processes and can be mapped experimentally or theoretically. Curated binary PPI networks (PINs), such as the BioGRID and STRING databases, often contain thousands or even millions of PPIs within a proteome or a set of proteins. Recent developments in molecular biophysics have enabled spatial and temporal PPI detection in cells. With the release of AlphaFold2 (AF2), the AF2 database (AFDB), and other tools (e.g., RoseTTAFold), accurate structure models of proteins and protein complexes have also become available. This Special Issue focuses on recent advances in molecular biophysics regarding protein–protein interactions. Possible topics include, but are not limited to: single-molecular PPI detection, single-cell PPI mapping, the protein interaction network, the protein complex, protein aggregation, protein–protein docking, protein–protein binding affinity, and the evolution of PPIs. We welcome experimental and theoretical contributions reports, reviews, and perspectives.

Guest Editors

Dr. Hao-Bo Guo

Air Force Research Laboratory (AFRL), 5135 Pearson Road, Building 10, WPAFB, Dayton, OH 45433, USA

Prof. Dr. Rajiv J. Berry

Air Force Research Laboratory (AFRL), 5135 Pearson Road, Building 10, WPAFB, Dayton, OH 45433, USA

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4052 Basel, Switzerland
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Editor-in-Chief

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Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

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