

Special Issue

Structural, Functional and Folding Strategies of Oligomeric Proteins

Message from the Guest Editors

Most of the proteins and enzymes that govern the life of cells exist as oligomers, suggesting that forming supramolecular aggregates provide evolutionary advantages. Multisubunit proteins play a key role in the main metabolic pathways. Such tasks are accomplished through tight cooperation among monomers, which give rise to new structural and functional properties, which are unachievable in a single chain protein. Despite the structural and functional advantages provided by multisubunit assembly and cooperation, in some cases monomers association might yield wrong folded intermediates that can lead to aggregation and severe pathologies.

This Special Issue will collect papers in this research field dealing with one of the following topics: a) folding pathways in multisubunit proteins; b) cooperative effects in multimeric structures; c) structural features of intersubunit interfaces; d) contact networks and symmetry analysis of oligomers; and e) the wrong face of oligomerization: aggregation and disease.

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