Special Issue

Protein Aggregation—Accident, Threat or Organized Assembly?

Message from the Guest Editor

Most cellular processes are thought to be coordinated by supramolecular assemblies of well-folded proteins interacting accurately and specifically with one another. When this assembly loses its specificity, mostly comprises a single protein component, is often misfolded, and exhibits limited solubility, it is characterized as aggregation. Protein aggregation is implicated in the pathology of several diseases (e.g., amyloid formation in neurodegenerative diseases). It can result from the overexpression of proteins and potentially act as a protective measure against undesirable, aberrant, or toxic proteins in bacteria (inclusion bodies), but it could also represent a method of compartmentalizing cellular processes in membraneless "phase-separated" organelles. This Special Issue aims to illuminate this "dark side" of protein intracellular assembly at the biochemical/biophysical level as well as the cellular and organismal level.

Guest Editor

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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.

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