



Protein Unfolding Induced by Chemical Agents

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Message from the Guest Editors

Dear Colleagues,

Protein folding and unfolding has been an important research area since the Anfinsen dogma was established. We know that biologically important proteins work best around room temperature, atmospheric pressure, neutral pH, and in the absence of chemicals (e.g. small, organic molecules). However, the equilibrium that favours folded protein conformation can be shifted by changing any of the conditions mentioned above. Here, we aim at chemical unfolding as it has pharmaceutical importance. Importantly, folding and unfolding time scales are generally too fast for straight experimental (e.g. NMR, AFM, FRET) observations. Therefore, often the equilibria are studied by physical methods as shifted to irreversible „denatured” states. Sometimes even the unfolded states are interesting because they provide insight into the nature of disordered proteins (IDPs). In addition to experimental techniques, in-silico, molecular dynamics simulations may be of help for understanding the mechanism of chemical denaturation.





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