Special Issue

Protein Folding and Protein Engineering by Combination of Domains: When One plus One Is More than Two

Message from the Guest Editors

The combination and rearrangement of domains is one of the main pathways for protein evolution. The combination of several domains can yield results that exceed the sum of their properties. It is not surprising that this pathway is also attractive for protein engineering. Combining domains as building blocks provides an amazing variety of function combinations. Domain combinations can increase the specificity of enzymes; act as links between domains that have functional roles; mutually regulate activities; combine functions in a single chain that can act independently, consistently, or in a new context, and provide a structural basis for the development of entirely new functions. We invite colleagues whose work is devoted to the design and engineering of proteins to participate in this Special Issue. We are seeking original research articles and reviews that describe advances in protein engineering through a combination of functional and structural domains, as well as articles and reviews devoted to the analysis of these achievements and the search for prospects for the application of this approach. We look forward to receiving your contributions!

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