

## Special Issue

# Study on Post-translational Modifications of Protein

### Message from the Guest Editor

The focus of this Special Issue is the study of post-translational protein modifications (PTMs). These modifications, such as phosphorylation, methylation, acetylation, lipidation, glycosylation, sumoylation and ubiquitinylation, which involve catalyzation by specific enzymes after protein translation, can regulate protein function in terms of activity and stability. In particular, the phosphorylation and methylation of proteins are involved in the signal transduction processes of autophagy, apoptosis and RNA metabolism. In this context, the addition of phosphate groups to specific serines or threonines often influences the binding and enzymatic activities of proteins. Proteolytic modification, such as cleavages caused by caspases during apoptosis, can also irreversibly affect protein function. All of these protein modifications play important roles in a wide variety of signaling pathways. In this Special Issue, individual PTMs as well as the interplay between different PTMs will be investigated with respect to activity, stability, localization and structural changes of the target protein.

### Guest Editor

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## International Journal of Molecular Sciences

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