Special Issue

Regulation of Ubiquitin Family Signaling in Disease

Message from the Guest Editor

Proteins are regulated by the conjugation of ubiquitin or ubiquitin-like proteins. While a synchronized cascade of three enzyme classes (E1, E2, and E3) is responsible for conjugation, deubiquitinating enzymes (DUBs) are the proteases that remove ubiquitin or ubiquitin-like molecules. This post-translational modification marks proteins by regulating their cellular functions, including their degradation, through the proteasome or the autophagy/lysosome pathway. Thus, ubiquitination/ubiquitin-like modifications have been involved in the regulation of important cellular processes such as cell proliferation, cell differentiation, DNA damage repair, cell cycle, apoptosis, signal transduction, and vesicle traffic, among others. Dysregulation of the conjugation process has been associated with multiple diseases such as neurodegeneration, cancer, viral infections, and inflammation. Understanding the molecular mechanisms involved in all these processes and their regulation is crucial to identify potential targets for the therapeutic treatment of associated diseases. As leading researchers in this field, we would like your participation.

Guest Editor

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Message from the Editor-in-Chief

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