Special Issue

Role of Ubiquitin in Cellular Quality Control

Message from the Guest Editor

Cellular ubiquitin pools are composed of free ubiquitin and ubiquitin conjugates that are in dynamic equilibrium. Cells must maintain free ubiquitin above certain threshold levels, which can fluctuate depending on the cellular environment. As one can imagine, cells need sufficient free ubiquitin to be readily available under stress conditions. In this Special Issue, we would like to focus on the role of ubiquitin in cellular quality control under stress conditions. Cellular effects of ubiquitin can be investigated through alterations in free ubiquitin levels, equilibrium shifts to different forms of ubiquitin, expression of mutant ubiquitin, or regulation of ubiquitin gene expression. Cellular quality control can be monitored by observing the status of protein degradation and protein aggregation, or the activity of the cellular quality control system, such as the ubiquitin–proteasome system or the autophagic pathway. Identifying new roles for ubiquitin or re-examining its role in cellular quality control will provide strong evidence that ubiquitin is a key molecule for cellular survival.

Guest Editor

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Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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