Special Issue

Dual Function Molecules and Processes in Cell Fate Decision 2.0

Message from the Guest Editors

Recent discoveries in cell biology have highlighted a number of molecules playing dual, opposite roles in different processes, including cell death, survival, proliferation, and differentiation. This unusual behavior can be dependent on the cell environment, post-translational modifications, epigenetic regulation, and complex molecular network interactions. In addition, many cellular proteins exert a dual role in regulating cell fate determination, but the regulation mechanisms are not well known. Therefore, the molecular switches controlling this behavior remain to be elucidated. This "Janus" role is not restricted to molecules but also involves cellular processes such as autophagy, a well characterized form of degradation of intracellular material that can be triggered either as a pro-survival response or as a cell death inducer. The aim of this Special Issue is to focus on these double-faced molecules and processes participating in the regulation of cell fate to provide a critical analysis of different cell states and of the regulative mechanisms involved in opposite cell responses.

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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