

Special Issue

Dual Function Molecules and Processes in Cell Fate Decision

Message from the Guest Editors

Recent molecular discoveries in cell biology have highlighted a number of molecules playing opposite roles in different processes, including cell death, survival, proliferation, and differentiation. This unusual behavior can be dependent on cell environment, post-translational modifications, epigenetic regulation, and complex network interactions. In some cases, hormetic responses can occur, as is the case with molecules, such as reactive oxygen species (ROS), which are active as bio-modulators at low doses and destructive at high concentrations. In addition, many cellular proteins exert a dual role in regulating cell fate determination, although the regulation mechanisms are not well known. The “Janus” role is not restricted to molecules but also involves cellular processes. The proposal for this Issue is to focus on these double-faced molecules/processes in the regulation of cell fate to provide a critical analysis of different situations and the regulative mechanisms involved in opposite cell responses.

Guest Editors

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