

Special Issue

Extracellular Signals in the Control of Gene Expression Regulating Cellular Survival, Death and Differentiation

Message from the Guest Editors

How do cells “read” information from the environment and translate it into specific cell fate decisions? Recent findings suggest that cell fate is encoded in early signaling events and can be predicted from defined signal properties. Specifically, the time course of activated key signaling molecules can be related to cellular fate such as proliferation or differentiation. Nowadays, the identification of the key signal mediators and their linking to cell fate is also facilitated by transcriptomics and proteomics analyses, assisted by bioinformatics and mathematical modeling. This Special Issue focuses on the recent progress in understanding the biochemical and molecular biology of cellular survival, death and differentiation, considering in particular changes coming from the cellular microenvironment that affect the transcriptional network. Specific changes in gene expression patterns and alterations in the protein expression in cellular or animal models will also be considered in this Special Issue.

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Message from the Editor-in-Chief

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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