Special Issue

Mechanisms of Gene Regulation in Embryos

Message from the Guest Editors

The precise regulation of gene expression during embryonic development is fundamental to the proper formation of tissues, organs, and body structures. These processes are influenced by a variety of factors, including DNA methylation, chromatin modifications, alternative RNA splicing, noncoding RNAs, protein folding, and protein degradation. Advances in genomic technologies, such as single-cell RNA sequencing and CRISPR-based genome editing, have provided new insights into how gene regulation contributes to normal embryonic development and diseases.This Special Issue seeks to highlight recent advances in the field, focusing on the molecular and cellular mechanisms governing gene regulation in embryos. We aim to bring together original research and review articles that explore how gene expression is modulated during critical developmental stages, as well as how dysregulation can lead to developmental disorders and diseases. The goal of this Special Issue is to provide a comprehensive resource for researchers and clinicians interested in the molecular and cellular foundations of embryonic development.

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Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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