Special Issue

Genetic and Epigenetic Regulation of Reproduction

Message from the Guest Editors

Reproduction is fundamental to the continuity of life. Reproductive processes are regulated at both genetic and epigenetic levels. Numerous studies have contributed to our knowledge of the molecular mechanisms underlying the genetic and epigenetic aspects of both natural and assisted/controlled reproduction. The definition of epigenetics refers to heritable changes in gene function and, thus, phenotypes that are not caused by genetic changes. Unlike the genome, the epigenome is highly dynamic and is able to modulate genome function under the influence of exogenous factors. This Special Issue endeavors to underscore the pivotal roles played by genetic and epigenetic factors in processes such as gametogenesis, fertilization, and embryonic development, as well as the genetics of infertility. We invite original research as well as review manuscripts discussing gene expression regulation, DNA methylation, histone modifications, and non-coding RNA involvement in reproductive events. Join us in disseminating groundbreaking discoveries and fostering a comprehensive discourse on the latest advancements in reproductive biology.

Guest Editors

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Deadline for manuscript submissions

closed (20 July 2025)



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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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