

Special Issue

Molecular Biology of Hypoxia

Message from the Guest Editor

Oxygen is essential for the survival of cells and organs in the body, and hypoxic conditions can disrupt a wide range of functional and metabolic systems. However, several types of cells and tissues have a reserve capacity that allows the mobilization of defense mechanisms for survival in response to relatively acute and less severe hypoxic conditions.

Intensive studies on the mechanisms that contribute to the development of hypoxia tolerance in cells and tissues are theoretically important as well as necessary to address numerous problems in practical medicine. Studies in this field have significantly advanced our understanding; however, several important questions remain unanswered. Therefore, this Special Issue focuses on the “Molecular Biology of Hypoxia” in various cells and tissues, including the heart, brain, kidneys, articular cartilage, and tumors, and we invite papers reporting novel findings on questions that currently remain unanswered.

Guest Editor

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closed (20 May 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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