

Special Issue

Endothelial Cells in Health and Disease

Message from the Guest Editors

Endothelial cells are key regulators of vascular and tissue homeostasis. Their unique organization ensures both selective permeability—controlling blood flow, immune responses, and fluid exchange—and the formation of a protective barrier against toxins and pathogens. Under healthy conditions, this balance supports tissue perfusion and organ integrity. However, endothelial dysfunction is a critical early event in many diseases, including cardiovascular disorders, cancer, and inflammatory conditions. One of the major challenges for endothelial cells is managing oxidative stress, which induces significant molecular and morphological alterations. This Special Issue aims to collect manuscripts concerning investigations into the multifaceted roles of endothelial cells, highlighting recent advances in molecular and morphological events occurring in healthy endothelium and how endothelial cells can recover when damage occurs. The Special Issue seeks to provide a comprehensive view of endothelial cell biology under physiological conditions as well as their involvement in disease onset and progression.

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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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