

Special Issue

Advances in Angiogenesis Research: From Novel Compounds to Mechanistic Insights and Therapeutic Strategies

Message from the Guest Editor

Angiogenesis—the formation of new blood vessels from pre-existing vasculature—is a tightly regulated physiological process essential for tissue development, repair, and regeneration. Dysregulated angiogenesis, such as pathological neovascularization, underlies the progression of various diseases, including cancer, ocular disorders, and chronic inflammation. In these cases, therapeutic strategies aimed at inhibiting angiogenesis have shown clinical relevance by targeting the abnormal vascular network that sustains disease progression. Conversely, insufficient angiogenesis can compromise tissue perfusion and regeneration, particularly in ischemic or hypoxic conditions such as chronic wounds, myocardial infarction, and neurodegenerative diseases. In these contexts, pro-angiogenic strategies and molecular inducers of neovascularization represent promising therapeutic approaches to restore tissue function and viability.

We invite original research articles focused on the molecular mechanisms of angiogenesis, including signaling pathways, transcriptional and epigenetic regulation, microRNAs, extracellular vesicles, and the tumor microenvironment.

Guest Editor

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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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