

Special Issue

Unravelling the Intricate Link Between Microvascular Dysfunction and Cardiovascular Disease

Message from the Guest Editor

Microvascular dysfunction is a key factor in the pathogenesis of cardiovascular diseases (CVDs), contributing to heart failure, major adverse cardiovascular events, and increased cardiovascular mortality.

Recent advances in research have unveiled the molecular mechanisms underlying microvascular dysfunction, highlighting the pivotal roles of endothelial dysfunction, oxidative stress, reduced nitric oxide (NO) bioavailability, VEGF dysregulation, and endothelin-1 overactivity. These processes are further implicated in conditions such as diabetes, hypertensive disorders of pregnancy, chronic kidney disease, rheumatoid arthritis, and aortic valve stenosis. Notably, microvascular dysfunction often precedes the onset of diastolic dysfunction and heart failure with preserved ejection fraction (HFpEF).

This Special Issue focuses on the latest molecular insights into microvascular dysfunction and its pivotal role in cardiovascular pathogenesis. This Special Issue serves as a platform with which to integrate fundamental discoveries with translational research, emphasizing microcirculation as a critical target for future cardiovascular therapies.

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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