

## Special Issue

# Heart Diseases: Molecular Mechanisms and New Therapies

### Message from the Guest Editor

Cardiovascular disease is a leading cause of death globally and its incidence is growing. Understanding the molecular changes that occur in the heart during the development of disease is critical to creating and applying novel therapies to treat heart diseases. This Special Issue aims to highlight and promote our understanding of heart disease, including its molecular basis and emerging therapies to treat these conditions. Papers focused on a range of cardiac conditions from genetic cardiomyopathies to ischemia-reperfusion injury, and stressors that impact heart function from diabetes and hypertension to pregnancy and menopause are welcomed. Furthermore, we invite studies that are fundamental in nature and use animal models of disease, alongside research involving patients and their care. The focus of studies and reviews should be identifying the molecular mechanisms of conditions that impact the heart and/or testing novel therapeutic strategies that mitigate dysfunction and injury. We look forward to receiving your contributions.

### Guest Editor

Dr. Glen Pyle

1. IMPART Network, Dalhousie Medicine, 100 Tucker Park Rd., Saint John, NB E2K 5E2, Canada
2. Women's Health Research Institute, BC Women's Hospital + Health Centre, H214 – 4500 Oak Street, Box 42B, Vancouver, BC V6H 3N1, Canada
3. Department of Biomedical Sciences, Ontario Veterinary College, University of Guelph, Guelph, ON, Canada

### Deadline for manuscript submissions

closed (30 April 2025)



## Biomolecules

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.8  
CiteScore 9.2  
Indexed in PubMed



[mdpi.com/si/203880](https://mdpi.com/si/203880)

*Biomolecules*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[biomolecules@mdpi.com](mailto:biomolecules@mdpi.com)

[mdpi.com/journal/  
biomolecules](https://mdpi.com/journal/biomolecules)





# Biomolecules

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.8  
CiteScore 9.2  
Indexed in PubMed



[mdpi.com/journal/  
biomolecules](https://mdpi.com/journal/biomolecules)



## About the Journal

### Message from the Editorial Board

*Biomolecules* is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

---

### Editors-in-Chief

Prof. Dr. Peter E. Nielsen

Department of Cellular and Molecular Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Blegdamsvej 3C, DK-2200 Copenhagen, Denmark

Prof. Dr. Lukasz Kurgan

Department of Computer Science, Virginia Commonwealth University, Richmond, VA 23284, USA

---

### Author Benefits

#### Open Access

— free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Embase, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Biochemistry)