Special Issue

Mechanisms of Cardiac Arrhythmias: Focus on Cardiomyocytes

Message from the Guest Editor

Cardiac arrhythmias are the result of complex interactions between various factors that affect the electrical activity of cardiomyocytes. These factors include ion channel dysfunction, dysregulation of calcium handling, myocardial ischemia, structural abnormalities in the heart, imbalances in the autonomic nervous system, and genetic mutations. Understanding these mechanisms is crucial for the development of effective treatments for arrhythmias. In cardiomyocytes, alterations in ion channels and calcium handling can lead to abnormal electrical activity, while structural abnormalities and ischemia can alter the conduction of electrical impulses. The autonomic nervous system also plays an important role in regulating heart rate and rhythm. Inherited genetic mutations can cause ion channel dysfunction or structural abnormalities in the heart, leading to arrhythmias. Overall, a comprehensive understanding of the mechanisms of cardiac arrhythmias is essential for the development of effective therapies to prevent and treat these potentially life-threatening conditions.

Guest Editor

Dr. Marie-Louise Ward

Department of Physiology, Faculty of Medical and Health Sciences, The University of Auckland, Private Bag 92019, 1023 Auckland, New Zealand

Deadline for manuscript submissions

closed (20 February 2024)

Journal of Cardiovascular Development and Disease

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 3.7
Indexed in PubMed

mdpi.com/si/180287

Journal of Cardiovascular Development and Disease
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
jcdd@mdpi.com

mdpi.com/journal/jcdd

Journal of Cardiovascular Development and Disease

an Open Access Journal by MDPI

Impact Factor 2.3
CiteScore 3.7
Indexed in PubMed

mdpi.com/journal/jcdd

MDPI

About the Journal

Message from the Editor-in-Chief

The primary goal of the *Journal of Cardiovascular Development and Disease* (*JCDD*, ISSN 2308-3425) is to provide cardiovascular scientists a platform to publish their work in a quick and efficient way. Topics can range from studies designed to decipher the events underlying early heart development to studies focusing on the origins of congenital and acquired heart disease. Papers submitted to *JCDD* undergo a fast, yet thorough, peer-review process. In this process, we will apply strict ethical policies and standards. *JCDD* guarantees fast dissemination of results to a large scientific audience

Editor-in-Chief

Prof. Dr. Thomas Brand
National Heart & Lung Institute, Imperial College London, South Kensington Campus, London SW7 2AZ, UK

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Cardiac and Cardiovascular Systems) / CiteScore - Q2 (General Pharmacology, Toxicology and Pharmaceutics)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 28.8 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).