

Special Issue

Heart Development Defects: Focus on the Myoarchitecture of the Heart

Message from the Guest Editor

With recent advances in cardiac imaging, it is necessary to update our understanding of the anatomy of the normal heart and those with developmental anomalies. These methodologies provide insights into quantitative 3D myoarchitecture at various spatial resolutions, ranging from the micrometer level, utilizing synchrotron imaging and multiphotonic microscopy, to the submillimeter level, employing speckle echocardiographic, CT and MRI techniques. Nevertheless, the process of 3D imaging encompasses more than merely the analysis of stacked slices of the heart. In order to comprehend the full scope of the information provided by these novel tools, it is essential to grasp the fundamental concepts of discrete differential geometry and continuum mechanics. This Special Issue will provide a comprehensive overview of the relationships between the trabecular and the compact ventricular wall, accompanied by a thorough exploration of several developmental anomalies. This is a foundational piece of work, and it is the right time to engage with it.

Guest Editor

Prof. Dr. Pierre Simon Jouk

Département de Génétique et Reproduction, CHU Grenoble Alpes,
Grenoble BP217, CEDEX 09, 38043 Grenoble, France

Deadline for manuscript submissions

31 January 2027



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/247218

*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](https://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](https://mdpi.com/journal/jcdd)



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 24.7 days after submission; acceptance to publication is undertaken in 3.6 days (median values for papers published in this journal in the second half of 2025).