

Special Issue

Cellular and Molecular Mechanisms of Heart Development

Message from the Guest Editor

The heart develops through a highly dynamic and complex process, disruptions to which underlie a broad spectrum of heart diseases. A deeper understanding of the mechanisms governing cardiac development is therefore crucial in elucidating disease etiologies and advancing diagnostic and therapeutic strategies.

This Special Issue will explore regulatory mechanisms in cardiogenesis, with a particular focus on the underlying cellular and molecular events. We aim to highlight research on key signaling pathways and transcriptional networks that coordinate cardiac cell fate specification, differentiation, and tissue morphogenesis. We welcome studies that utilize diverse experimental models to reveal evolutionarily conserved and species-specific principles.

We invite the submission of original research and review articles. Contributions to this Special Issue should significantly advance our knowledge of developmental biology and provide critical insights into the pathogenesis of heart disease, informing the development of novel therapeutic interventions.

Guest Editor

Dr. Jun K. Takeuchi

Medical Research Institute, Advanced Molecular Medicine, Bio-Informational Pharmacology, Tokyo Medical and Dental University, Tokyo 113-8510, Japan

Deadline for manuscript submissions

31 May 2026



Cells

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed



mdpi.com/si/259316

Cells
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
cells@mdpi.com

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





Cells

an Open Access Journal
by MDPI

Impact Factor 5.2
CiteScore 10.5
Indexed in PubMed



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



About the Journal

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

Editors-in-Chief

Dr. Alexander E. Kalyuzhny

Dental Basic Sciences, University of Minnesota, 308 Harvard St. SE,
Minneapolis, MN 55455, USA

Prof. Dr. Cord Brakebusch

Biotech Research & Innovation Centre, The University of Copenhagen,
Copenhagen, Denmark

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Cell Biology) / CiteScore - Q1 (General Biochemistry, Genetics and Molecular Biology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).