

Special Issue

New Strategies for Cardiac Tissue Repair and Regeneration

Message from the Guest Editors

The heart is one of the least regenerative organs in the body, necessitating innovative interventional therapies to restore cardiac function following injury or disease. Research in cardiac tissue engineering seeks to develop, evaluate, and implement interdisciplinary strategies for repairing the heart. In this Special Issue, we aim to organize a collection of emerging technologies and translational research that will lead to impactful medical breakthroughs in cardiovascular medicine. Topics of interest include, but are not limited to: human pluripotent stem cell differentiation; transdifferentiation of cardiac fibroblasts into cardiomyocytes; biofabrication techniques of engineered cardiac tissues; cardiac biomechanics; computational cardiophysiology; cardiotoxicity testing; arrhythmia and electrical coupling; cardiac vascularization; tissue engineered vascular grafts for cardiac applications; heart valve repair; cardiac delivery of exosomes, RNAs, or other biologics; in vitro microphysiological models of cardiac tissue and disease; preclinical applications of cardiovascular research technologies. We look forward to receiving your valuable contributions.

Guest Editors

Dr. Rajeev J. Kant

Dr. Arvin Soepriatna

Dr. Bum-Rak Choi

Deadline for manuscript submissions

closed (20 January 2025)



Bioengineering

an Open Access Journal
by MDPI

Impact Factor 3.8
CiteScore 4.0
Indexed in PubMed



mdpi.com/si/179061

Bioengineering
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
bioengineering@mdpi.com

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





Bioengineering

an Open Access Journal
by MDPI

Impact Factor 3.8
CiteScore 4.0
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Bioengineering* (ISSN 2306-5354). *Bioengineering* is published in open access format – research articles, reviews and other contents are released on the Internet immediately after acceptance. The scientific community and the general public have unlimited and free access to the content as soon as it is published. *Bioengineering* provides an advanced forum for the science and technology of bioengineering. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Anthony Guiseppi-Elie

Department of Biomedical Engineering, Texas A&M University, College Station, TX 77843, USA

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Engineering, Biomedical)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.4 days after submission; acceptance to publication is undertaken in 3.5 days (median values for papers published in this journal in the second half of 2024).