

Special Issue

Advances in Cardiac Tissue Engineering

Message from the Guest Editors

Recent advances have led to exciting developments in cardiac tissue engineering, ranging from stem cell-derived constructs to new clinical treatments to 3D bioprinting vasculature. Efforts have been made to recapitulate the complex cardiac microenvironment using functional biomaterials. The unique microenvironment includes complex and combinatorial physiological, mechanical and biochemical cues. The physical properties and architecture of cardiac tissue influence both function and differentiation. Functional engineered cardiac tissue has the potential to improve our understanding and approach to cardiology and cardiac disorders.

The aim of this Special Issue is to present the state-of-the-art progress on such advances in cardiac tissue engineering and their scientific and clinical applications. We welcome original research articles, comprehensive reviews, methods, mini-reviews, and perspectives including (but not limited to) the following topics: 3D bioprinting cardiac tissue, tissue biomanufacturing to create functional cardiac tissue, advanced biomaterials systems to model cardiac tissues, and stem cell-based approaches.

Guest Editors

Dr. Jessica Gluck
Prof. Dr. George Truskey
Prof. Dr. Ning Sun

Deadline for manuscript submissions

closed (31 July 2022)



Bioengineering

an Open Access Journal
by MDPI

Impact Factor 3.7
CiteScore 5.3
Indexed in PubMed



mdpi.com/si/106741

Bioengineering
Editorial Office
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 3.7
CiteScore 5.3
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 17 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the second half of 2025).