



an Open Access Journal by MDPI

Recent Advances in Cardiac Assist Devices

Guest Editor:

Dr. Navin K. Kapur

Molecular Cardiology Research
Institute, Tufts Medical Center,
Boston, MA, USA

Deadline for manuscript
submissions:

31 October 2024

Message from the Guest Editor

From rudimentary cardiopulmonary bypass systems to magnetically levitated micro-rotary flow pumps mounted onto catheters with self-expanding elements, we are in the midst of the next major inflection point in bioengineering for cardiac assist devices. In parallel to growth in mechanical engineering, our understanding of both the biologic and physiologic impacts of cardiac assist devices on myocardial recovery and multi-organ perfusion continues to develop. Finally, the promise of closed-loop communication between sensors and actuators driven by alternative intelligence platforms is emerging as a reality. To advance our understanding of this exciting field, this Special Issue of *Bioengineering* will promote interdisciplinary exchange, facilitate new collaborations, and stimulate expanded applications of innovations in the field of cardiac assist devices. The next major advance in cardiac assist devices is more likely to occur when seemingly disparate fields come together to innovate and disrupt existing paradigms. We invite engineers, scientists, healthcare professionals, and innovators from all disciplines to submit their original reports for consideration.



mdpi.com/si/192002

Special Issue



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Anthony Guiseppi-Elie

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

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPlus / 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 17.7 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 2023).

Contact Us

Bioengineering Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/bioengineering
bioengineering@mdpi.com
[X@Bioeng_MDPI](https://twitter.com/Bioeng_MDPI)