Special Issue

Computational Models in Cardiovascular Medicine

Message from the Guest Editor

The use of computational models over the last three decades has provided important support for surgical and clinical techniques in the cardiovascular field. The models can be used as predictive and statistical tools to understand the advantages and disadvantages that may arise from the use of assist devices or invasive and minimally invasive surgical procedures. Computational analysis has been used to model the human physiological heart in 3D, not only to mimic natural situations, but also to guide surgeons during high-risk open-heart procedures. The aim of our Special Issue would be dedicated to this topic, collecting the best evidence regarding the development of artificial networks, which help predict post-operative risks, thus helping clinicians and surgeons to evaluate clinical and periprocedural decisions, and assessing haemodynamic parameters in patients undergoing ventricular assist devices such as ECMO, extracorporeal circulation or LVAD.

Guest Editor

Prof. Dr. Giuseppe Filiberto Serraino

Department of Experimental and Clinical Medicine, University Magna Graecia of Catanzaro, 88100 Catanzaro, Italy

Deadline for manuscript submissions

closed (31 July 2023)

Bioengineering

an Open Access Journal
by MDPI

Impact Factor 3.7
CiteScore 5.3
Indexed in PubMed

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, 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 19.2 days after submission; acceptance to publication is undertaken in 3.3 days (median values for papers published in this journal in the first half of 2025).

Recognition of Reviewers:

reviewers who provide timely, thorough peer-review reports receive vouchers entitling them to a discount on the APC of their next publication in any MDPI journal, in appreciation of the work done.