

Special Issue

Artificial Intelligence in Biomedical Imaging, Biosignals and Healthcare

Message from the Guest Editors

The integration of advanced biomedical data processing and artificial intelligence (AI) into biomedical imaging, biosignals, and healthcare is revolutionizing the field, enabling more precise diagnostics, personalized treatments, and improved patient outcomes. This Special Issue will focus on original research papers and comprehensive reviews that explore state-of-the-art methodologies and innovations in this rapidly evolving field. The topics of interest for this Special Issue include, but are not limited to, the following: Advanced techniques for the processing and analysis of biomedical data; AI-driven algorithms for the segmentation and interpretation of medical images; Machine learning models for predicting patient-specific disease progression and treatment outcomes; The integration of AI with medical imaging modalities, such as EEG, ECG, MRI, CT, and ultrasound; The development and application of AI in personalized diagnostics and therapy planning; The quantitative analysis of biomedical images for tissue characterization and disease detection; Verification, validation, and uncertainty quantification in AI-based medical imaging.

Guest Editors

Dr. Ioannis Kakkos

Prof. Dr. George K. Matsopoulos

Dr. Athanasios Anastasiou

Deadline for manuscript submissions

30 November 2025



Bioengineering

an Open Access Journal
by MDPI

Impact Factor 3.7
CiteScore 5.3
Indexed in PubMed



mdpi.com/si/222028

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 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.