

Special Issue

Artificial Intelligence for Computer-Aided Detection in Biomedical Applications

Message from the Guest Editor

This Special Issue explores the integration of AI techniques within CAD systems to revolutionize biomedical applications. The use of Artificial Intelligence (AI) in Computer-Aided Detection (CAD) has led to significant advancements in biomedical applications. AI encompasses the development of intelligent machines that can simulate human intelligence, enabling them to learn from large datasets and make predictions or decisions based on complex patterns and algorithms. CAD systems, on the other hand, aid healthcare professionals in the identification and analysis of various medical conditions, utilizing computer algorithms to improve accuracy and efficiency.

Topics of interest within this Special Issue include, but are not limited to, the development and evaluation of novel AI algorithms for CAD in biomedical imaging, the application of machine learning techniques to enhance detection and diagnosis accuracy, the utilization of deep learning architectures in CAD systems, the integration of AI technologies into medical decision making, the impact of AI on CAD-assisted diagnosis and treatment planning, and ethical considerations surrounding the use of AI in biomedical applications.

Guest Editor

Dr. Lawrence Chan

Department of Health Technology and Informatics, Hong Kong Polytechnic University, Hong Kong, China

Deadline for manuscript submissions

31 August 2025



Bioengineering

an Open Access Journal
by MDPI

Impact Factor 3.7
CiteScore 5.3
Indexed in PubMed



mdpi.com/si/187320

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.