



an Open Access Journal by MDPI

Extended Reality Technologies, Medical Robotics Solutions, and Deep Learning in Translational Medicine

Guest Editor:

Dr. Fabrizio Cutolo

Department of Information
Engineering, University of Pisa,
56122 Pisa, Italy

Deadline for manuscript
submissions:

closed (30 June 2024)

Message from the Guest Editor

In translational medicine, extended reality, wearable sensing, medical robotics, and artificial intelligence solutions aim to provide new diagnostic and treatment tools through a multi-disciplinary and "bench-to-bedside" approach. The ambition is to seamlessly enrich the perceptive efficiency of the healthcare practitioner through contextually blended computer-generated elements obtained by pre-operative and intra-operative medical imaging, and by processing wearable sensors data. Particularly, augmented reality technology has proven to be a key asset for the development of new image-guided surgery paradigms. In addition, augmented reality allows the implementation of efficient user interfaces for surgical simulators capable of providing precise metrics for the evaluation of trainee performance. The joint exploitation of wearable sensing, deep learning, medical robotics, and computer vision solutions is bound to leverage the implementation of new healthcare devices. The purpose of this Special Issue is therefore to connect researchers in these new technologies for the implementation of translational medicine solutions, and to discuss the recent advances in these fields.



mdpi.com/si/155603

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 15.6 days after submission; acceptance to publication is undertaken in 3.1 days (median values for papers published in this journal in the first half of 2024).

Contact Us

Bioengineering Editorial Office
MDPI, Grosspeteranlage 5
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)