



Advances toward a New Generation of Neural Interfaces Based on Minimally Invasive Technologies

Guest Editors:

Dr. Jesus Minguillon

Dr. Miguel Ángel López Gordo

Prof. Dr. Antoni Ivorra

Deadline for manuscript
submissions:

closed (31 March 2024)

Message from the Guest Editors

Neural interfaces are well known to the biomedical community and, increasingly, to the general public. In comparison with non-invasive technologies, implantable approaches are usually advantageous in terms of spatial selectivity, quality of signal, and usability. However, there are some important risks associated with implantable devices, such as tissue damage or infection. Thanks to technological advances in recent years, many authors have proposed several minimally invasive approaches based on miniaturized and wireless implants with different capabilities. This promising and disruptive new generation of neural interfaces will minimize the risks associated with implantable devices, while keeping the advantages over non-invasive interfaces.

This Special Issue aims to present a collection of studies that address the advances, challenges, and prospects in the framework of neural interfaces based on minimally invasive technologies. This encompasses implant design, wireless power transfer methods, networking and communication protocols, biosignal acquisition and processing, applications, and use cases.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Stephen D. Meriney

Department of Neuroscience,
University of Pittsburgh,
Pittsburgh, PA 15260, USA

Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Brain Sciences* (ISSN 2076-3425). *Brain Sciences* is an open access, peer-reviewed scientific journal that publishes original articles, critical reviews, research notes, and short communications on neuroscience. The scientific community and the general public can access the content free of charge as soon as it is published.

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, Embase, PSYINDEX, PsycInfo, CAPlus / SciFinder, and other databases.

Rapid Publication: manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.2 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).

Contact Us

Brain Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/brainsci
brainsci@mdpi.com
[X@BrainSci_MDPI](https://twitter.com/BrainSci_MDPI)