

Special Issue

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

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.

Guest Editors

Dr. Jesus Minguillon

Dr. Miguel Ángel López Gordo

Prof. Dr. Antoni Ivorra

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Brain Sciences
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
brainsci@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Stephen D. Meriney

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

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