

## Special Issue

# Novel Approaches to the Regeneration and Repair of the Nervous System: Neuronal Reprogramming

### Message from the Guest Editor

While adult neurogenesis has been observed in specific brain regions, the potential for generating new neurons in the adult human central nervous system is severely constrained. Despite significant advances in medicine, the task of replenishing lost neurons following central nervous system injuries and neurodegenerative diseases remains highly challenging. A promising avenue to address this challenge is in situ neuronal reprogramming, an emerging approach that involves converting somatic cells into induced neurons capable of functioning like existing neurons. Neuronal reprogramming involves various obstacles, including cell death, low reprogramming efficiency, difficulties with off-target gene delivery, incomplete reprogramming, and the unintended generation of undesirable cell types. Effectively overcoming these critical hurdles is essential to pave the way for a future where neuronal reprogramming has transformed the landscape of medicine and human health. This Special Issue aims to gather original research articles and review papers specifically focused on neuronal reprogramming, both in vivo and in vitro, with a particular emphasis on addressing the aforementioned obstacles.

### Guest Editor

Dr. Xuanyu Chen

Medical College of Georgia, Augusta University, Augusta, GA 30912, USA

### Deadline for manuscript submissions

closed (31 May 2024)



## Biomedicines

an Open Access Journal  
by MDPI

Impact Factor 3.9  
CiteScore 6.8  
Indexed in PubMed



[mdpi.com/si/191821](https://mdpi.com/si/191821)

*Biomedicines*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[biomedicines@mdpi.com](mailto:biomedicines@mdpi.com)

[mdpi.com/journal/  
biomedicines](https://mdpi.com/journal/biomedicines)





# Biomedicines

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.9  
CiteScore 6.8  
Indexed in PubMed



[mdpi.com/journal/  
biomedicines](https://mdpi.com/journal/biomedicines)



## About the Journal

### Message from the Editor-in-Chief

*Biomedicines* (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to *Biomedicines*, be it original research, review articles, or developing Special Issues of current key topics.

---

### Editor-in-Chief

Prof. Dr. Felipe Fregni

1. Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, CAPus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q1 (Medicine (miscellaneous))

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).