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

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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.

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