Special Issue

The Mechanistic Link between Cell Therapy and Neurorehabilitation

Message from the Guest Editor

Cell therapy for neurological disorders has various meanings and offers a variety of potentials. Stem cells exist even in adulthood and possess the capacity to self-renew and differentiate into multiple lineages, contribute to normal homeostasis, and exert therapeutic benefits either endogenously or following transplantation in injured organs, i.e., the brain. Transplanted cells might function as part of a newly developed network in the host tissue or secrete several trophic factors with subsequent neuroprotective/neurorestorative potentials. Furthermore, exercise ameliorates the physical and cognitive impairment of patients with neurological disorders by enhancing brain plasticity, as a major mechanism of action. Key to neuroplasticity is brain remodeling towards recapitulation of a neurodevelopmental microenvironment conducive to stem cell proliferation and differentiation. However, a fundamental gap in our knowledge about the mechanistic link between stem cell and rehabilitation therapies remains unresolved. The novel concepts in this Special Issue embody the mechanistic link between cell therapy and neurorehabilitation.

Guest Editor

Dr. Naoki Tajiri

Department of Neurophysiology & Brain Science, Graduate School of Medical Sciences & Medical School, Nagoya City University 1 Kawasumi, Mizuho-cho, Mizuho-ku, Nagoya-city, Aichi 467-8601, Japan

Deadline for manuscript submissions

closed (30 September 2020)

International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed

mdpi.com/si/30094

International Journal of Molecular Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

mdpi.com/journal/ijms

MDPI

International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed

mdpi.com/journal/ijms

MDPI

About the Journal

Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. Maurizio Battino
Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

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, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)