1. Background and development

The progress of scientific research and its increasingly expanding fields has awakened a beautiful wish to extend the human lifespan and provide better quality of life for people with disabilities or impairments. The clinical exploration of neurorestoration, which began in the first decade of the 21st century, has revealed that it is possible to restore damaged or impaired neurological functions—including structural changes—and improve quality of life for patients with what were once assumed to be untreatable and incurable neurological diseases.1 2 A novel discipline, neurorestoration, was proposed; this discipline integrates several similar concepts of neurorestoration, including restorative neurology, restorative neurosurgery, cellular and/or molecular neurosurgery, neural repair, neurorestorative techniques/therapies, restorative neuroscience, and neuroprosthetics.3 The International Association of Neurorestoratology (IANR) was founded in 2007 as an “exchange platform” for experts and specialists related to the field of neurorestoratology in the widest sense. In 2013, the Journal of Neurorestoratology was set up in collaboration with Dove Press as the official journal of the IANR; it was developed as a platform to publish basic and clinical research findings in this discipline. In 2018, the Journal of Neurorestoratology was subsequently transferred to and managed by Tsinghua University Press. Now the journal is managed by Tsinghua University Press in collaboration with Elsevier since 2022.4 To date, the journal has grown for 10 years.

2. Scope

The journal is international, peer-reviewed, and open access. It focuses on original experimental and clinical research into neurorestorative mechanisms, therapeutic methodological advances in cell therapy, tissue engineering and bioengineering, neuremodulation by electromagnetic stimulation, neural prostheses and brain–machine interfaces, pharmacotherapies and neurochemical therapies, neurorestorative surgery, active rehabilitation training and combined applications, clinical therapeutic guidelines, and standards in neurorestoratology. The journal especially focuses on clinical therapeutic explorations and trials for geriatric, pediatric, hereditary, and traumatic disorders of the central nervous system.

3. Aims, objectives, and salient features

The journal’s main aims are to disseminate the results of neurorestorative research in innovative clinical translational medicine worldwide; to promote the clinical exploration of neurorestorative treatments; to spread novel knowledge, concepts, and recognition of neurorestoratology as a discipline; and to present current ethical and legal aspects of neurorestoratology.

The major objectives of the journal are to build a high-level academic exchange platform for scientists and clinicians specializing in the field of neurorestoratology, and to attract and educate young scientists and physicians in this new and rapidly growing field.

Salient features of the journal include the wish to provide fair treatment to every author who submits a manuscript to the journal, even with different opinions, and to publish controversial explorations of novel treatments.

4. Databases

The journal is currently indexed in the Directory of Open Access Journals, the Emerging Sources Citation Index of the Web of Science (impact factor 3.3), the World Journal Clout Index report (WJCI) and Scopus.

5. Important past publications

The first paper in the Journal of Neurorestoratology was published in July 2013 by Gao, Thonhoff, Dunn, and Wu.5 Since then, the journal has published many notable papers across several different categories.

5.1. Declarations, guidelines, and standards

The first Beijing Declaration of the IANR (2009) was published in Cell Transplantation.6 However, both the second version (2015), revised in Tehran, and the third version (2023), revised in Xian, were published in the Journal of Neurorestoratology.2 3 The IANR was the first to announce to the world that functional neurorestoration is achievable in central nervous system injury and neurodegenerative diseases, including at chronic stages.2 3 The journal has also published a series of clinical neurorestorative therapeutic guidelines, such as for spinal cord injury, traumatic brain injury, and stroke, as well as for clinical neurorestorative cell therapy [https://www.sciencedirect.com/journal/journal-of-neurorestoratology/issues]. The journal has also published several standard operation protocols for clinical-grade cell preparation and quality control (such as for olfactory ensheathing cells, neural progenitors/precursors, or mesenchymal stromal cells), as well as an assessment scale for spinal cord disorders [https://www.sciencedirect.com/journal/journal-of-
neurorestoratology/issues]. These declarations, guidelines, and standards provide regulatory neurorestoratology-related documents for physicians in clinical practice and scientists in pre-clinical research, and are key references for administrators in government and other agencies/institutions.

5.2. Noteworthy reviews

The Yearbooks of Neurorestoratology have been updated each year since 2017. These annual yearbooks review new findings related to the pathogenesis of nervous diseases, important neurorestorative mechanisms, and clinical achievements of novel neurorestorative treatments. Several of these reviews have introduced neurorestorative clinical advances in key neurological diseases, such as spinal cord injury, traumatic brain injury, stroke, Alzheimer’s disease, and Parkinson’s disease. These reviews detail the latest clinical therapeutic achievements and encourage experts to participate in neurorestorative therapeutic exploration.

5.3. Clinical reports of novel treatments

Clinical neurorestorative therapeutic explorations include cell therapy, neuromodulation and brain–machine interfaces, neurorestorative surgery, and neurorestorative pharmacy, among others [https://www.sciopen.com/journal/join_journal/archive?journalId=1405060522752729089&issn=2324-2426; https://www.sciencedirect.com/journal/journal-of-neurorestoratology/issues]. Some reports published in the Journal of Neurorestoratology have described innovative achievements in this field. For example, the report of a patient with amyotrophic lateral sclerosis who used a brain–computer interface based on steady-state visual evoked potentials to achieve accurate and rapid computer input, or the report of patients with chronic stroke who achieved improved neurological functions in a multi-center, randomized, double-blind, placebo-controlled clinical trial of olfactory ensheathing cell treatment. Together, these reports have further confirmed that impaired neurological functions in central nervous system injury and neurodegenerative diseases can be restored, even during chronic periods of these disorders.

6. Prospects

The journal’s progress has grown substantially since its inception. Contributors—including authors, reviewers, the editorial team, press, and readers—continue to work hard to improve this academic exchange platform. The special issue celebrating 10 years of the Journal of Neurorestoratology will present outstanding articles describing recent advances in the discipline. In the future, the journal will continue to publish increasing numbers of innovative achievements in clinical trials, with high standards.

Funding

No funding support for this article.

Authors’ contribution

Hongyun Huang drafts the manuscript, all other authors revise it and complete more information.

Declaration of competing interest

The authors report no conflict of interests in this work except Hongyun Huang, who is an inventor with intellectual property relating to some technologies and devices.

References


Hongyun Huang*
Cell Therapy Center, Beijing Hongtianji Neuroscience Academy, Beijing 100143, China

Hari Shanker Sharma
Experimental Central Nervous System Injury & Repair, Anesthesiology & Intensive Care Medicine, Department of Surgical Sciences, University Hospital, Uppsala University, SE-75185 Uppsala, Sweden

Paul R. Sanberg
Center of Excellence for Aging & Brain Repair, Department of Neurosurgery & Brain Repair, Morsani College of Medicine, University of South Florida, Tampa 33612, FL, USA

Ali Otom
Department of Rehabilitation Medicine, Jordan University Hospital, Amman 11183 Jordan

Lin Chen
Department of Neurosurgery, Dongzhimen Hospital, Beijing University of Traditional Chinese Medicine, Beijing 100007, China

Anna Sarnowska
Mossakowski Medical Research Center, Polish Academy of Sciences, Warsaw 02-106 Poland

Kyoung-Suok Cho
Department of Neurosurgery, Uijongbu St. Mary’s Hospital, The Catholic University of Korea College of Medicine, Seoul 06591, South Korea

* Corresponding author.
E-mail address: huanghongyun001@126.com (H. Huang).

15 December 2023