



Recent Advances in Immune-Mediated Cerebellar Ataxias: Pathogenesis, Diagnostic Approaches, Therapies, and Future Challenges

Guest Editors:

Prof. Dr. Mario Ubaldo Manto
Fonds de la Recherche
Scientifique - FNRS, Brussels,
Belgium

Dr. Hiroshi Mitoma
Medical Education Promotion
Center, Tokyo Medical University,
Tokyo 160-0023, Japan

Deadline for manuscript
submissions:
closed (10 June 2022)

Message from the Guest Editors

The clinical category of immune-mediated cerebellar ataxias (IMCAs) has been established after 3 decades of clinical and experimental research. IMCAs include diverse etiologies, including paraneoplastic cerebellar degeneration (PCD), post-infectious cerebellitis, gluten ataxia, and anti-GAD ataxia.

Recent remarkable progress has clarified various characteristics of these etiologies and therapeutic strategies in terms of immunotherapies. Some patients whose clinical profiles do not match those of classic types are now gathered in a spectrum of primary autoimmune cerebellar ataxia (PACA).

It is still unclear how immune tolerance is broken, leading to autoimmune insults of the cerebellum, and how cerebellar circuits are damaged by antibody- or cell-mediated mechanisms. Antibodies may specifically target the cerebellar circuitry and impair synaptic mechanisms (synaptopathies).

The present Special Issue aims to illuminate what is solved and what is unsolved in clinical practice and pathomechanisms of IMCAs.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Stephen D. Meriney

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

Message from the Editor-in-Chief

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.

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, Embase, PSYINDEX, PsycInfo, CAPlus / SciFinder, and other databases.

Rapid Publication: manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.6 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the second half of 2025).

Contact Us

Brain Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/brainsci
brainsci@mdpi.com
[X@BrainSci_MDPI](https://twitter.com/BrainSci_MDPI)