

## Special Issue

# The Immune System in Neurobehavioral Diseases: Research Progress

### Message from the Guest Editors

Scientists are investigating the complex interplay of immune responses within the central nervous system, shedding light on how immune dysregulation may contribute to conditions such as Alzheimer, Parkinson, autism, schizophrenia, and other diseases.

One key focus is the role of neuroinflammation, where immune cells activated in the brain influence neural circuits and contribute to cognitive and behavioral changes. Researchers are uncovering specific immune molecules and pathways involved in these processes, providing potential targets for both prophylactic and therapeutic interventions. Investigations into the gut-brain axis highlight the influence of the microbiome on immune activity and its impact on neurobehavioral health. Moreover, advancements in technology such as imaging techniques and single-cell analysis also enable a more detailed understanding of immune responses in the context of neurobehavioral diseases.

This Special Issue welcomes innovative pathogenic and therapeutic concepts, focused reviews and diverse perspectives about the intricate connections between the immune system and the manifestation of neurobehavioral diseases.

---

### Guest Editors

Dr. Katia Mangano

Dr. Paolo Fagone

Dr. Maria Cristina Petralia

---

### Deadline for manuscript submissions

closed (25 September 2024)



## Brain Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.6  
Indexed in PubMed



[mdpi.com/si/198544](https://mdpi.com/si/198544)

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

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





# Brain Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.6  
Indexed in PubMed



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



## About the Journal

### 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.

---

### Editor-in-Chief

Prof. Dr. Stephen D. Meriney

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

---

### Author Benefits

#### 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 16.2 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the first half of 2025).

#### Recognition of Reviewers:

reviewers who provide timely, thorough peer-review reports receive vouchers entitling them to a discount on the APC of their next publication in any MDPI journal, in appreciation of the work done.