







an Open Access Journal by MDPI

# The Immune System in Neurobehavioral Diseases: Research Progress

Guest Editors:

### Dr. Katia Mangano

Department of Biomedical and Biotechnological Sciences, University of Catania, 95123 Catania, Italy

## Dr. Paolo Fagone

Department of Biomedical and Biotechnological Sciences, University of Catania, 95123 Catania, Italy

#### Dr. Maria Cristina Petralia

Department of Clinical and Experimental Medicine, University of Messina, 98122 Messina. Italy

Deadline for manuscript submissions:

25 September 2024

## **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.













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, PSYNDEX, CAPlus / SciFinder, and other databases.

**Rapid Publication:** manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.6 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 2023).

#### **Contact Us**