

## Special Issue

# From Neural Mechanisms to Plasticity-Driven Therapies: A Focus on Auditory Processing

### Message from the Guest Editors

We invite contributions that bridge basic neuroscience, clinical research, and translational approaches, highlighting how insights into auditory neural mechanisms can inform the development of plasticity-driven interventions for auditory-related disorders.

Topics may span molecular, cellular, systems, and cognitive levels of analysis, encompassing both animal and human studies. Topics of interest:

- Neural encoding and decoding of sensory information in healthy and disordered systems;
- Cellular pathways involved in the physiological regulation and adaptation in response to sensorial stimuli;
- Plasticity of auditory pathways following sensory deprivation, hearing loss, or tinnitus;
- Neurophysiological and neuroimaging studies of auditory learning, adaptation, and rehabilitation;
- Cognitive and perceptual aspects of sensory processing and their neural correlates;
- Auditory system development, aging, and critical periods for plasticity;
- Plasticity-based therapeutic strategies (e.g., auditory training, neurostimulation, pharmacological interventions);
- Computational and modeling approaches linking auditory mechanisms to behavior and therapy outcomes.

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### Guest Editors

Dr. Giulia Cartocci

Dr. Bianca Maria Serena Inguscio

Dr. Dario Rossi

Dr. Saviana Antonella Barbati

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### Deadline for manuscript submissions

31 July 2026



## Brain Sciences

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## 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.

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### Editor-in-Chief

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