Special Issue

Advancements and Future Directions in Real-Time fMRI Neurofeedback Research

Message from the Guest Editors

Clinical applications of rtfMRI-nf have shown improved cognitive, emotional, and/or behavioral functioning in response to neurofeedback training.   Although many advancements have been made in the rigor of rtfMRI-nf research, the following gaps remain: (1) Mechanisms of Action: The neural mechanisms underlying volitional control of brain activity, and subsequent brain–behavior linkages, remain unclear;   (2) Long-Term Effects: There is limited evidence on the time course of neurofeedback learning;   (3) Generalization of Results: There is insufficient evidence on whether neurofeedback leads to broad cognitive, emotional, or behavioral improvements across different contexts or individuals; (4) Sample Size and Replication: Larger. (5) Individual Differences: There is limited research on predictors of neurofeedback success

Original manuscripts and review papers addressing these knowledge gaps will likely advance basic science and clinical applications of rtfMRI-nf.

Guest Editors

Dr. Meghan Martz

Dr. Scott Peltier

Dr. Stefanie Russman Block

Deadline for manuscript submissions

31 October 2025

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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