Special Issue

Brain Mechanisms of Hot and Cold Executive Function in Healthy and Clinical Populations

Message from the Guest Editor

Executive function (EF) is the collection of cognitive processes that are required for goal-oriented behavior. It has been theoretically divided into 2 complementary domains: cold EF, which includes logical, decontextualized reasoning, and hot EF, which includes affective and motivational processing. This division has advanced our understanding of EF processes in both healthy and clinical populations, such as individuals with ADHD, OCD, schizophrenia, mood disorders, or conditions with frontal lobe damage. Despite progress in identifying the brain circuits engaged, many questions remain regarding how these systems develop, interact, and guide adaptive or dysfunctional behavior. The goal of this SI is to publish research on the neural underpinnings, development, and functional consequences of hot and cold EF across different populations. We particularly welcome submissions using multimodal methods (EEG, fMRI, TMS/tES, lesion mapping, etc.), transdiagnostic perspectives, or studies of emotion–cognition interactions. Submission types include original research, reviews, meta-analyses, and theoretical or methodological papers within cognitive neuroscience and relevant clinical fields.

Guest Editor

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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

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