







Special Issue Reprint

Neurodegeneration in Cognitive Impairment and Mood Disorders for Experimental, Clinical and Translational Neuropsychiatry

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Neurodegeneration is a major problem in neuroscience and medicine, as it causes and worsens many neurological and psychiatric disorders. It involves gradually losing neurons at different brain levels, affecting cognition, emotion, behavior, consciousness, and attention. However, the current therapies are mostly symptomatic and ineffective. In light of these limitations, there is an urgent need to develop novel and transformative approaches, among which non-invasive brain stimulation (NIBS) holds considerable promise. NIBS techniques can modulate neural activity and safely and reversibly promote plasticity, presenting an avenue for exploring innovative treatment modalities. Moreover, the NIBS field is evolving rapidly, with ongoing research endeavors to elucidate its mechanisms of action, identify new clinical applications, and investigate synergistic interactions with pharmacological agents. This Special Issue covers the latest progress and challenges in studying neurodegeneration in cognitive impairment and mood disorders from experimental, clinical, and translational perspectives. It addresses the complexities and diversity of these conditions, the scarcity of disease-modifying treatments, the ethical and practical challenges of conducting research in the development and validation of novel methods such as NIBS, artificial intelligence, and drug repurposing. Collaborative efforts among various stakeholders are needed to improve our knowledge and treatment of neurodegenerative, underlying cognitive impairment, and mood disorders.



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