



Special Issue Reprint

## Biomolecular Approaches and Drugs for Neurodegeneration

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This reprint presents a collection of recent contributions addressing the urgent challenges posed by neurodegenerative diseases. In more detail, it explores therapeutic convergence through natural products, drug repurposing, and biomolecular targets, while also examining specific topics like the selective vulnerability of neuronal populations in Alzheimer's disease (AD), cholesterol metabolism in microglia, and innovative approaches to prion inhibition. We also report on studies highlighting mitochondria as key modulators of neurodegeneration. The work also presents nutraceutical strategies in Parkinson's disease (PD) models and investigates anti-inflammatory compounds able to regulate microglial activity. The reprint further expands on the neuroprotective potential of plant-derived molecules, adrenergic receptor signaling in AD, immune system involvement in multiple sclerosis, and therapeutic strategies for spinocerebellar ataxia. Collectively, the different topics discussed in this work emphasize the multifaceted nature of neurodegeneration research, demonstrating how molecular insights, pharmacological innovation, and translational approaches converge to pave the way for future neurotherapies.



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