

Special Issue

Common Mechanisms in Alzheimer's Disease and Other Neurodegenerative Disorders

Message from the Guest Editors

Neurodegenerative disorders, in particular Alzheimer's disease (AD), represent one of the most urgent unmet medical needs and a serious threat to an aging society. After a series of substantial drawbacks in advanced phase clinical trials, there are now promising results from recent clinical studies, in particular those using monoclonal antibodies targeting pathogenic protein assemblies. However, basic molecular, cellular and systemic mechanisms contributing to the initiation and/or progression of disease are not yet completely understood. There might be common mechanisms leading to neurodegeneration that are shared by different clinical entities, including AD, Parkinson's disease (PD), dementia with Lewy bodies (DLB), multiple system atrophy (MSA) and Huntington's disease (HD). These mechanisms may include oxidative stress, neuroinflammation, pathological protein processing, post-translational protein modification, compromised protein degradation and the formation of pathogenic protein aggregates. Here, such potential cross-disease pathways are highlighted with a focus on novel perspectives for the development of new treatment approaches.

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Deadline for manuscript submissions

closed (31 May 2022)



Biomolecules

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/82286

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