

Special Issue

α-Synuclein in Neurons and Glia: From Physiology to Pathology

Message from the Guest Editors

The physiological role of the protein α-synuclein is debated; it is expressed constitutively in neurons and found in glia under certain pathological conditions. α-Synuclein fibrillary aggregation and spreading through neuroanatomically connected regions is a hallmark of a series of neuropathologies termed synucleinopathies that include Parkinson's disease, dementia with Lewy bodies, pure autonomic failure, and multiple system atrophy. However, several questions remain unanswered: is α-synuclein aggregation a cause or effect of the pathological process? What determines the transition from the physiological to pathological state of α-synuclein? Is neuronal α-synuclein different from the α-synuclein found in glial cells? Is it worth using α-synuclein in animal models? In this Special Issue, we want to shed light upon the complex scenario of α-synuclein transition from physiology to pathology in synucleinopathies, with a wide view from the clinic to the basic experimental knowledge.

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