



Polyamines in the Central Nervous System: Neurons, Glial Cells and Diseases

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Message from the Guest Editors

Dear Colleagues,

Polyamines contribute to the pathogenesis of Alzheimer's, Parkinson's, and other diseases of the central nervous system (CNS), while polyamine supplementation induces regeneration of neurons and increases longevity. In the normal adult CNS, the polyamines spermidine and spermine are accumulated preferentially in astrocytic cells, not in neurons, and are key molecules regulating many receptors and channels. Recent evidence emphasizes that the localization of polyamines; their metabolites, including agmatine; and their biosynthetic enzymes in CNS (brain and retina) vary with age and are altered in diseases. This Special Issue will highlight the uneven functional distribution of polyamines in the CNS, their effects on channels and transporters, as well as their roles in CNS disorders. We invite investigators to contribute high-quality original research and review articles focused on the roles of polyamines in health and disease, concerning the biological functions of neurons, gliotransmission, and the importance in the glial system.





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