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Ventral Hippocampus: Features of Functional Organization

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Message from the Guest Editor

Dear Colleagues,

Research during the last few decades has revealed a wide repertoire of functions in which the ventral hippocampus is profoundly involved, including social memory, anxiety, context-dependent fear, and decision making. Furthermore, the ventral hippocampus is preferentially involved in depression, schizophrenia, epilepsy, and autism. Comparisons between the two extreme segments of the hippocampus, i.e., the ventral and dorsal, have revealed notable features of an intrinsic ventral hippocampus circuit, including increased excitability, narrower range of activity-dependent synaptic plasticity, and relatively high levels of several neuromodulators.

Therefore, elucidating the details of this organization will gradually contribute to the understanding of how this organization supports ventral hippocampus-dependent functions. Furthermore, revealing the mechanisms underlying the specific roles that the ventral hippocampus plays in neurological, psychiatric, and neurodevelopmental disorders will advance our ability to design new therapeutic strategies for the treatment of disorders involving the ventral hippocampus.



Specialsue





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