

REGULATION OF HIPPOCAMPAL ADULT NEUROGENESIS AND ADULT-BORN GRANULE CELL ACTIVITY

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Neurogenesis is the new neurons generation from neural precursor cells. Apart from the embryonic development, neurogenesis occurs in distinct neurogenic niches in the brains of adult mammals. Two major sites are the subventricular zone of the lateral ventricle and the subgranular zone of the dentate gyrus in the hippocampus. Regulation of adult neurogenesis refers to the modulation of mechanisms controlling the neurogenic processes. Several chemical, physical, epigenetic and genetical factors regulate adult neurogenesis. Adult neurogenesis, effective mechanisms in this process and regulation of these mechanisms are new research topics in the literature. It is known that adult neurogenesis is regulated chemically, physically, and molecularly, but it is still not fully understood what are these mechanisms and how these regulatory mechanisms work. With this study, we aimed to review the studies that have been made up to now, to clarify the issues that are not covered in the literature, to give new perspectives for future studies and therapeutic interventions and to provide a guiding resource.

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