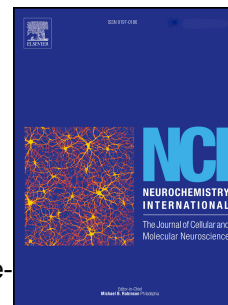


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**Melatonin attenuates the high-fat diet and streptozotocin-induced reduction in rat hippocampal neurogenesis**

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**Abbreviations:** DCX, doublecortin; ERK1/2, extracellular signal-regulated kinase 1/2; GFAP, glial fibrillary acidic protein; HFD, high-fat diet; IR- $\alpha$ , insulin receptor- $\alpha$ ; IR- $\beta$ , insulin receptor- $\beta$ ; Mel, melatonin; MT1, melatonin receptors1; MT2, melatonin receptors1; NFD, normal-fat diet; NR2A, N-methyl-D-aspartate receptor NR2A subunit; NR2B, N-methyl-D-aspartate receptor NR2B subunit; p-ERK, phosphorylated extracellular signal-regulated kinase; p-IR- $\beta$ , phosphorylated insulin receptor- $\beta$ ; PSD-95, post synaptic density 95; STZ, streptozotocin

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