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High sucrose consumption induces memory impairment in rats associated with electrophysiological modifications but not with metabolic changes in the hippocampus

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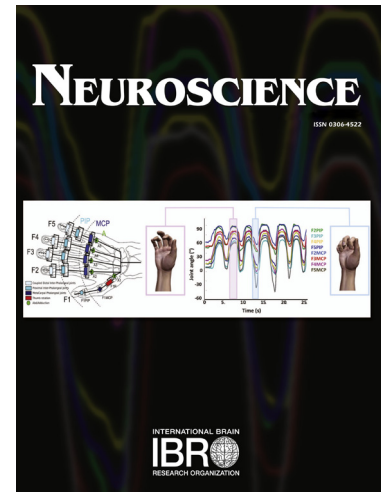
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**HIGH SUCROSE CONSUMPTION INDUCES MEMORY IMPAIRMENT IN RATS
ASSOCIATED WITH ELECTROPHYSIOLOGICAL MODIFICATIONS BUT NOT WITH
METABOLIC CHANGES IN THE HIPPOCAMPUS**

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Keywords: sucrose, memory, adenosine, hippocampus, synaptic plasticity.

Highlights:

- 1) High sucrose consumption leads to cognitive and emotional impairments in rats
- 2) High sucrose consumption does not trigger metabolic alterations in the hippocampus
- 3) High sucrose consumption impairs synaptic plasticity in the temporoammonic pathway
- 4) High sucrose consumption up-regulates adenosine A₁ receptors in the hippocampus

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