

THE HIPPOCAMPAL AND CORTICAL NEUROPROTECTIVE EFFECT OF SILICON REDUCING PROINFLAMMATORY CYTOKINES IN A LATE-STAGE TYPE 2 DIABETES MELLITUS RAT MODEL

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INTRODUCTION

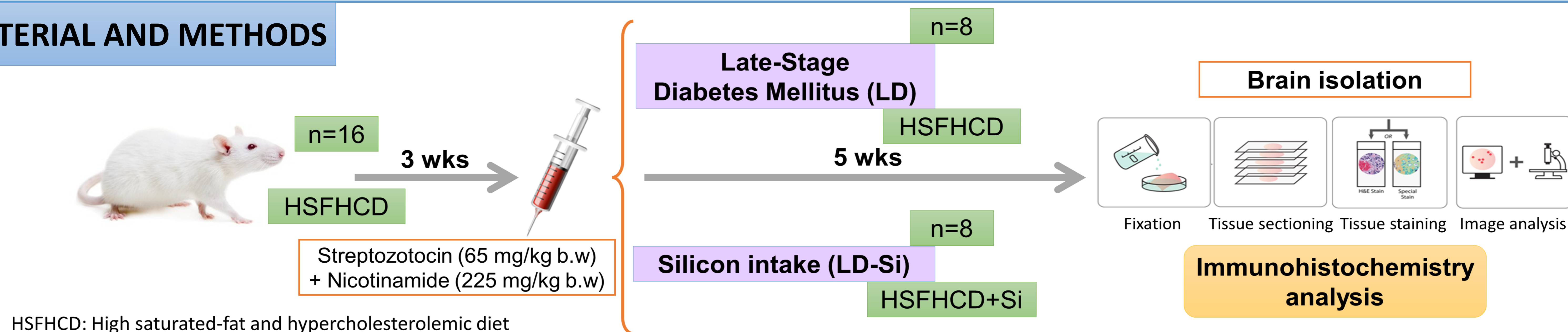
Type 2 Diabetes Mellitus (T2DM) is closely related to cognitive impairment and dementia. Inflammatory response, which occurs mainly through NF-κB pathway in T2DM, may contribute to the brain dysfunction.

Silicon has antidiabetic, antioxidant, and anti-inflammatory properties; however, its effects on the inflammatory responses in the brain of T2DM rats are unclear.

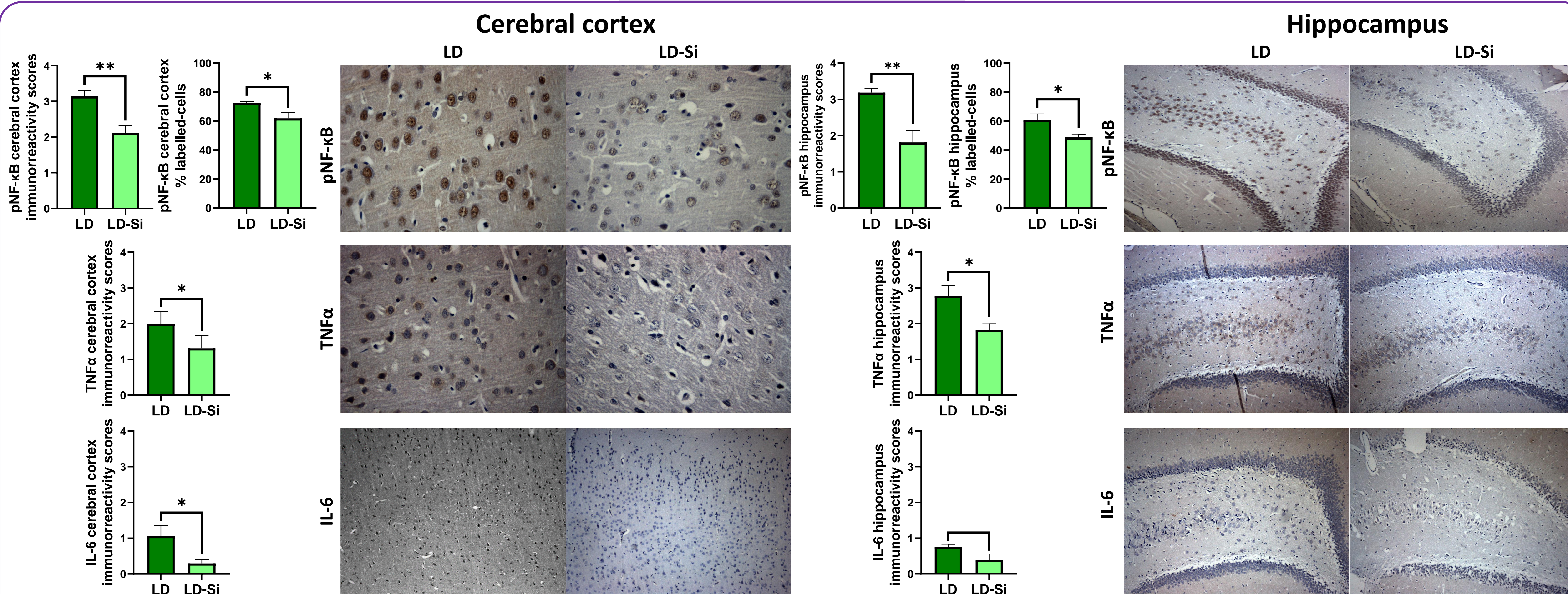
OBJECTIVE

To evaluate the **anti-inflammatory** effect of **silicon** in the **cerebral cortex** and **hippocampus** of late-stage T2DM rats.

MATERIAL AND METHODS



RESULTS



CONCLUSIONS

- ❖ Silicon is able to decrease the NF-κB pro-inflammatory pathway in cortex and hippocampus of late-stage T2DM rats.
- ❖ Silicon administration as a functional ingredient may offer a novel nutritional strategy in neuroprotection of T2DM-associated cognitive impairment.

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