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### ACCEPTED MANUSCRIPT

The Anticonvulsant Activity and Cerebral Protection of Chronic Lithium Chloride via NMDA Receptor/Nitric Oxide and phospho-ERK

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#### **Highlights**

- Chronic lithium shows anticonvulsant activity in mice and cerebral protection on glutamate neurotoxicity on CGN.
- ERK signaling pathway was involved in the therapeutic effect of lithium on glutamate neurotoxicity in cerebellum.
- Antagonism of NMDAR block the anticonvulsant effect of lithium.
- nNOS mediators affects anticonvulsant properties of lithium.

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