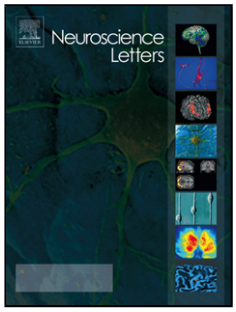

Title: Treatment with TREK1 and TRPC3/6 Ion Channel Inhibitors Upregulates microRNA Expression in a Mouse Model of Chronic Mild Stress

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Treatment with TREK1 and TRPC3/6 Ion Channel Inhibitors Upregulates microRNA Expression in a Mouse Model of Chronic Mild Stress

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Highlights

- It is the first study to show that ion channel inhibitors known as norgestimate and anadamide have antidepressive effects.
- Ion channel inhibitors have been shown to increase miRNA very rapidly.

ABSTRACT

Depression is a common mental disorder characterized by the mood of deep sadness. Recent studies have demonstrated that microRNAs and ion channels have significant roles in the etiopathogenesis of depression. Therefore, we investigated the effects of the TREK1 ion channel inhibitor anandamide and the TRPC3/6 inhibitor norgestimate on microRNA expression and antidepressant effect in the mouse chronic mild stress (CMS) model of depression. Male BALB/c mice were divided into groups as control, CMS, CMS+sertraline, CMS+anandamide, CMS+sertraline+anandamide, CMS+norgestimate and