

## **Valproic Acid Increases the Level of Expression of BDNF, GDNF and Their Receptors in the Embryonic Brain of Mice and Induces the Stereotype Behavior**

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The model with prenatal administration of valproic acid is the most common for studying the mechanisms of development of autism in experimental animals. We have shown that administration of valproic acid to pregnant female mice causes an increase in the expression of genes encoding the neurotrophic factors BDNF, GDNF, and their receptors in the embryonic brain. At the same time, adult mice with prenatal administration of valproic acid are characterized by increased severity of stereotyped behavior, which is one of the features of autistic-like behavior. We hypothesize that overexpression of neurotrophic factors during the embryonic period may stimulate abnormal brain development, leading to changes in behavioral characteristics.

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