

REVIEW

ON THE ROLE OF METABOTROPIC GLUTAMATE RECEPTORS IN THE MECHANISMS OF ACTION OF ANTIDEPRESSANTS

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Most conventional antidepressant drugs influence serotonergic, adrenergic, and/or dopaminergic systems, increasing serotonin, norepinephrine and dopamine synaptic availability. More recently attention has focused on glutamatergic system. Both preclinical and clinical studies, showing antidepressant-like actions of compounds which reduce transmission at N-methyl-D-aspartate (NMDA) receptors, indicate possible involvement of glutamatergic system in the etiology of depression. Since glutamatergic transmission is controlled not only by ionotropic but also by metabotropic glutamate receptors (mGluR), their involvement in the etiology and the therapy of depression was also postulated. Recent studies, showing that antidepressant treatment may influence mGlu receptors, together with the findings that group I mGluR antagonists, may possess antidepressant-like action, support this hypothesis.

Key words: *metabotropic glutamate receptors, depression*