

Data provide new perspective for understanding the antidepressant-like effects of a diabetes drug

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Research in animals has shown that the diabetes drug dulaglutide, which is a glucagon-like peptide-1 (GLP-1) receptor agonist may reduce

symptoms of depression. A new [study](#) published in *Brain and Behavior* reveals the mechanisms that are likely involved.

By conducting a range of tests in [mice](#) treated with and without dulaglutide, investigators confirmed the effects of dulaglutide on depressive-like behaviors, and they identified 64 different metabolites and four major pathways in the brain associated with these effects.

Markers of depression and the antidepressant effects of dulaglutide were linked to [lipid metabolism](#), amino acid metabolism, [energy metabolism](#), and tryptophan metabolism.

"These primary data provide a new perspective for understanding the antidepressant-like effects of dulaglutide and may facilitate the use of dulaglutide as a potential therapeutic strategy for depression," the authors wrote.

More information: Man Jin et al, Dulaglutide treatment reverses depression-like behavior and hippocampal metabolomic homeostasis in mice exposed to chronic mild stress, *Brain and Behavior* (2024). [DOI: 10.1002/brb3.3448](#)

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