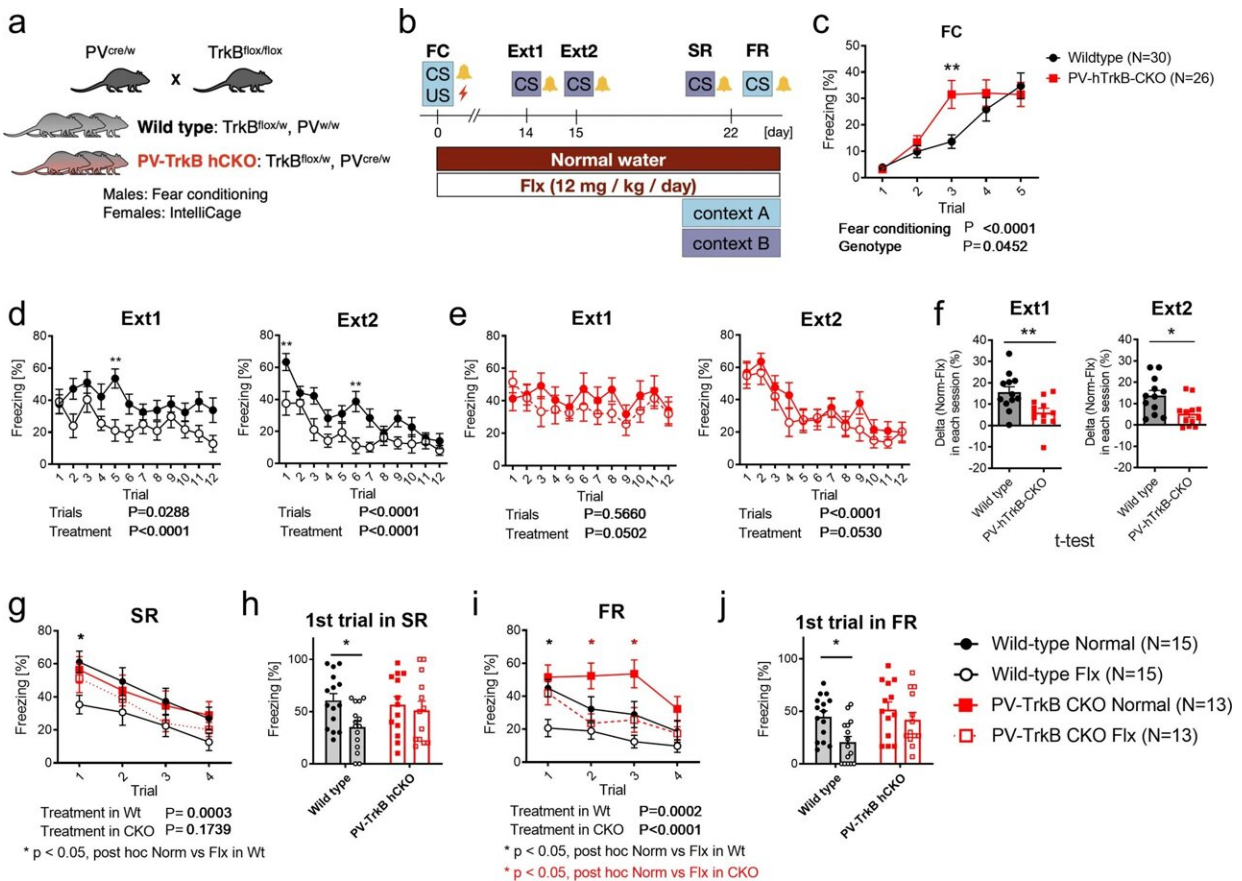


Study explains how antidepressant increases brain plasticity

April 5 2023



Fluoxetine treatment promotes contextual and cued fear erasure which depends on TrkB expression in PV interneurons. **a** Mating strategy to obtain wild-type and PV-specific heterozygous TrkB knockout (PV-TrkB hCKO) mice. **b** Scheme of the fear-conditioning paradigm. Mice were conditioned by pairing a tone and an electric shock in context A (**c**), and then one group was treated with fluoxetine (24 mg/kg/day). After 2 weeks, mice were subjected to 2 days of fear extinction training: day 1 (Ext1), day 2 (Ext2) wt (**d**), PV-TrkB hCKO (**e**). After

1 week, mice were tested for spontaneous recovery (SR) in context B (**g, h**) and fear renewal (FR) in context A (**i, j**). **c** Freezing was similarly increased during the conditioning/acquisition phase in both WT and hCKO mice and both genotypes reached a similar level of acquisition (two-way ANOVA, Conditioning, $F(4, 270) = 21.94$, P

Citation: Study explains how antidepressant increases brain plasticity (2023, April 5) retrieved 3 July 2023 from <https://medicalxpress.com/news/2023-04-antidepressant-brain-plasticity.html>

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