



Title	The role of medial prefrontal corticosterone and dopamine in the antidepressant-like effect of exercise
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Supplementary material

Table S1 Primary and secondary antibodies used for the western blot

	Antibody	Obtained from	Concentration
Primary antibodies	mouse monoclonal mineralocorticoid receptor (MR) antibody [H10E4C9F] ab2774	Abcam, UK	1:250
	mouse monoclonal glucocorticoid receptor (GR) antibody [BuGR2]-CHIP Grade ab2768	Abcam	1:250
	guinea pig DA D1 receptor (D1R) antibody	Narushima et al 2006	1:500
	rabbit DA D2 receptor (D2R) antibody	Narushima et al 2006	1:500
	rabbit polyclonal 5-HT1A receptor antibody (H-119: sc-10801)	Santa Cruz Biotechnology, USA	1:500
	mouse monoclonal anti-GAPDH antibody (sc-32233)	Santa Cruz Biotechnology	1:1000
Secondary antibodies	horseradish peroxidaseconjugated secondary anti-mouse IgG antibody	GE Healthcare, UK	1:10000 for GAPDH; 1:2000 for MR and GR
	horseradish peroxidase-conjugated secondary anti-rabbit IgG antibody	GE Healthcare	1:10000
	horseradish peroxidase-conjugated secondary anti guinea pig IgG antibody (SC-2438)	Santa Cruz Biotechnology	1:10000

Reference: Narushima, M., Uchigashima, M., Hashimoto, K., Watanabe, M. & Kano, M. Depolarization-induced suppression of inhibition mediated by endocannabinoids at synapses from

fast-spiking interneurons to medium spiny neurons in the striatum. *European Journal of Neuroscience* 24, 2246-2252 (2006).

Table S2 Statistical results of other neurotransmitters, including NA, 5-HT, alanine, glycine, taurine, glutamine, and glutamate, by two-way ANOVA with repeated measures. (Sample sizes are reported in Figure S2)

	Time	Group	Time*Group
NA	F=13.794, p<0.001	F=1.728, p=0.218	F=0.479, p=0.885
5-HT	F=2.789, p=0.006	F=1.463, p=0.254	F=0.931, p=0.503
Alanine	F=3.229, p=0.044	F=1.018, p=0.333	F=0.376, p=0.736
Glutamate	F=2.273, p=0.118	F=3.656, p=0.082	F=0.789, p=0.464
Glutamine	F=1.398, p=0.226	F=0.002, p=0.968	F=1.066, p=0.363
Glycine	F=0.271, p=0.823	F=1.313, p=0.276	F=0.646, p=0.574
Taurine	F=2.937, p=0.110	F=0.886, p=0.367	F=0.126, p=0.753

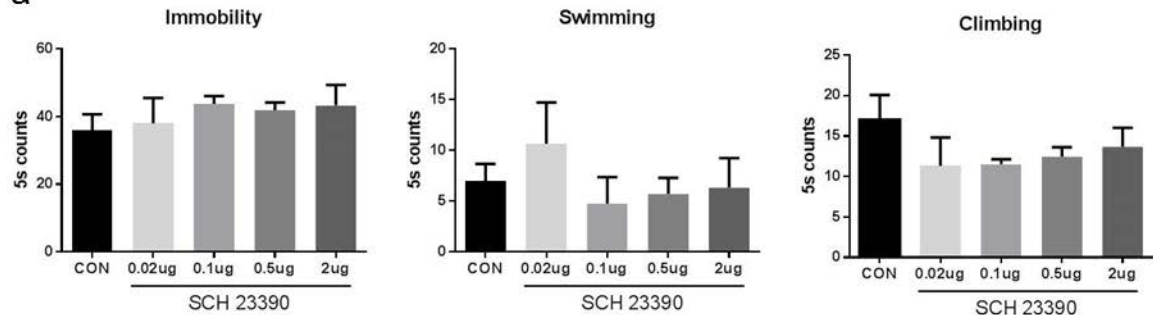
Figure S1 The results of a pilot experiment for determining the dose-dependent effect of intra-mPFC pre-microinjection of a D1R or D2R antagonist on the FST. The effect of pre-intra-mPFC microinjection of different doses of a D1R antagonist SCH23390 on the FST: immobility, swimming and climbing (a) (n=3-7/group). The effect of pre-intra-mPFC microinjection of different doses of a D2R antagonist haloperidol on the FST: immobility, swimming and climbing (b) (n=3-5/group). * p<0.05 compared to CON. Data is shown as Mean±SEM.

Figure S2 The effect of exercise on the concentrations of NA (a), 5-HT (b), alanine (c), glutamate (d), glutamine (e), glycine (f), and taurine (g) at baseline and following the FST. (n=6/group for NA and 5-HT; n=7/group for alanine and glutamine; CON n=7, EX n=6 for glycine and taurine; CON n=6, EX n=7 for glutamate). Data is shown as Mean±SEM.

Figure S3 GR antagonist (RU486) did not influence basal or FST-responsive 5-HT in the mPFC of EX rats. The effect of exercise on 5-HT (pg/ml) in the mPFC at baseline, following microinjection of RU486 (EX) or vehicle (CON) and following the FST. (n=5/group). Data is shown as Mean±SEM.

Figure S1

a



b

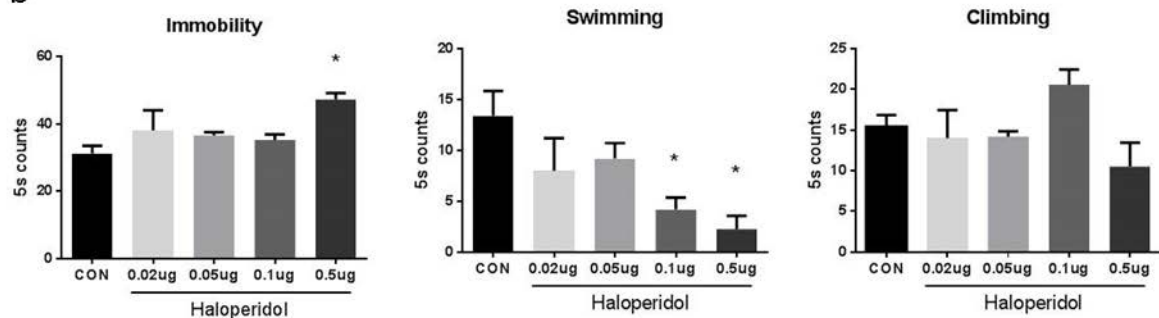


Figure S2

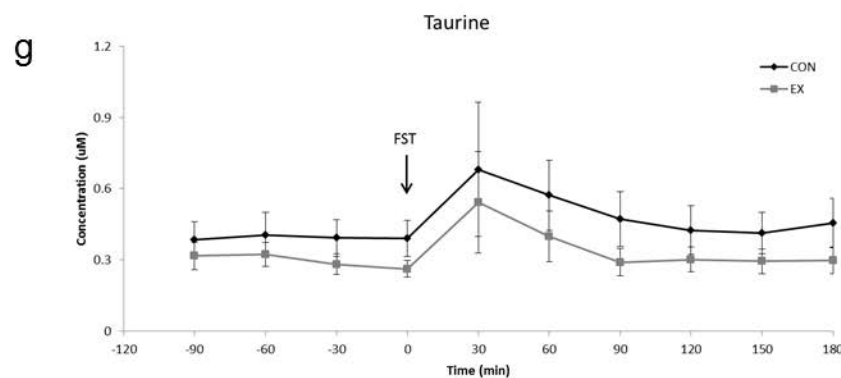
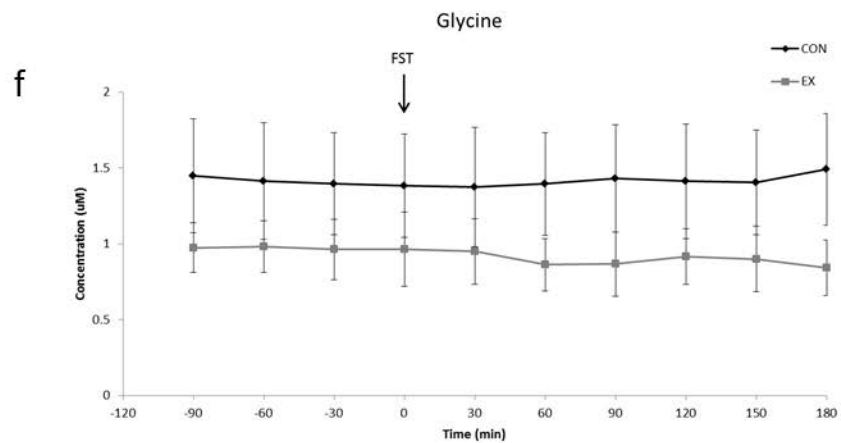
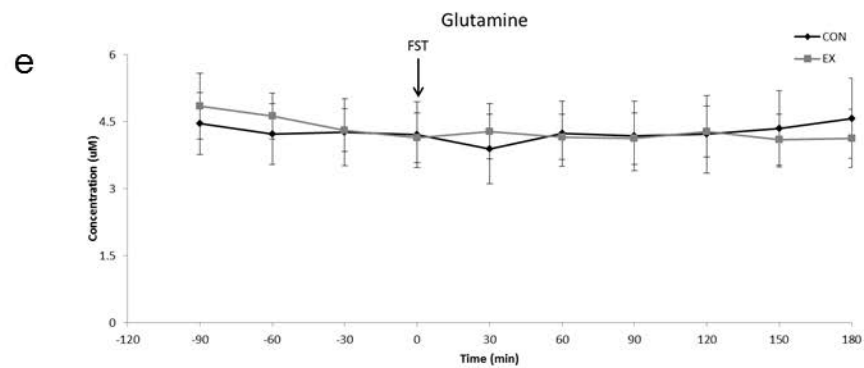
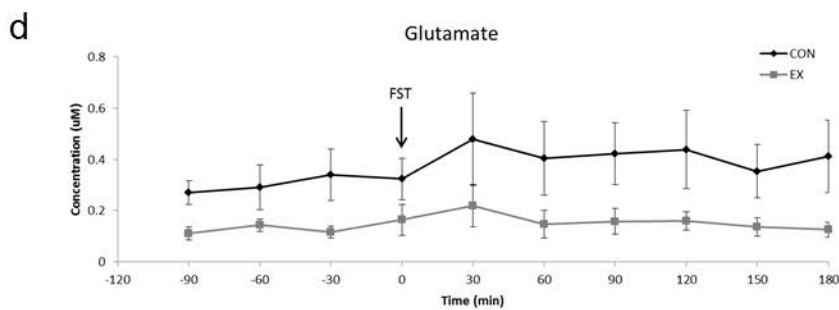
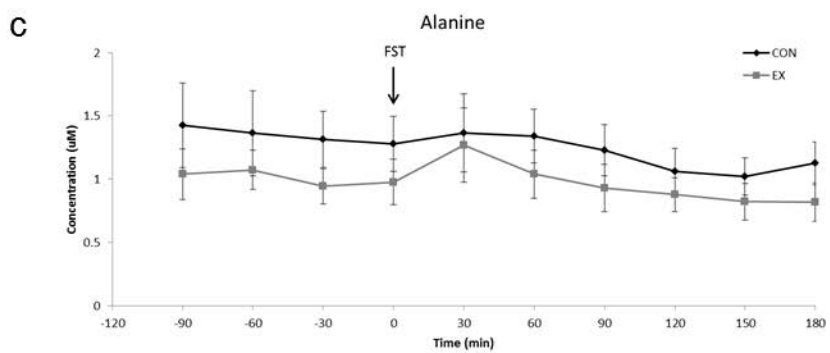
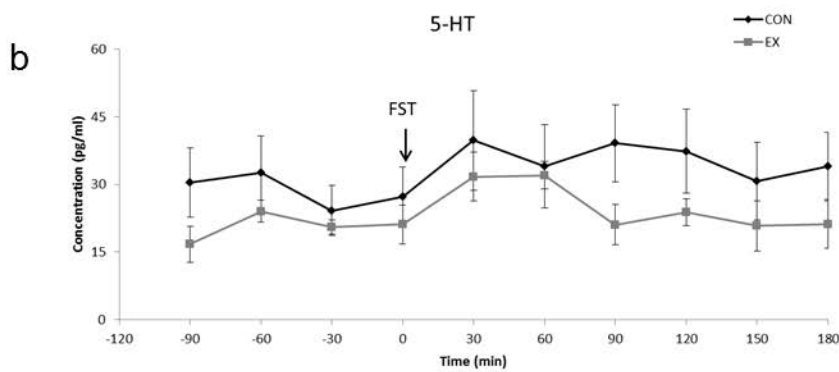
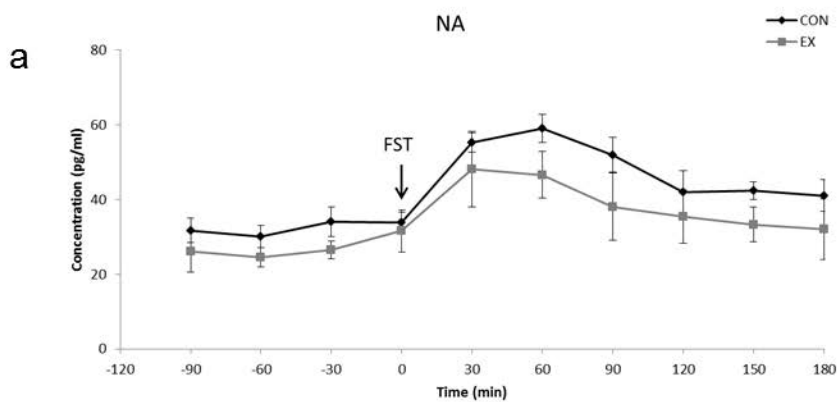


Figure S3

