

Supplementary Information: Pharmacological treatment with mirtazapine rescues cortical atrophy and respiratory deficits in MeCP2 null mice
 Tamara Bittolo, Carlo Antonio Raminelli, Chiara Deiana, Gabriele Baj, Valentina Vaghi, Sara Ferrazzo, Annalisa Bernareggi & Enrico Tongiorgi

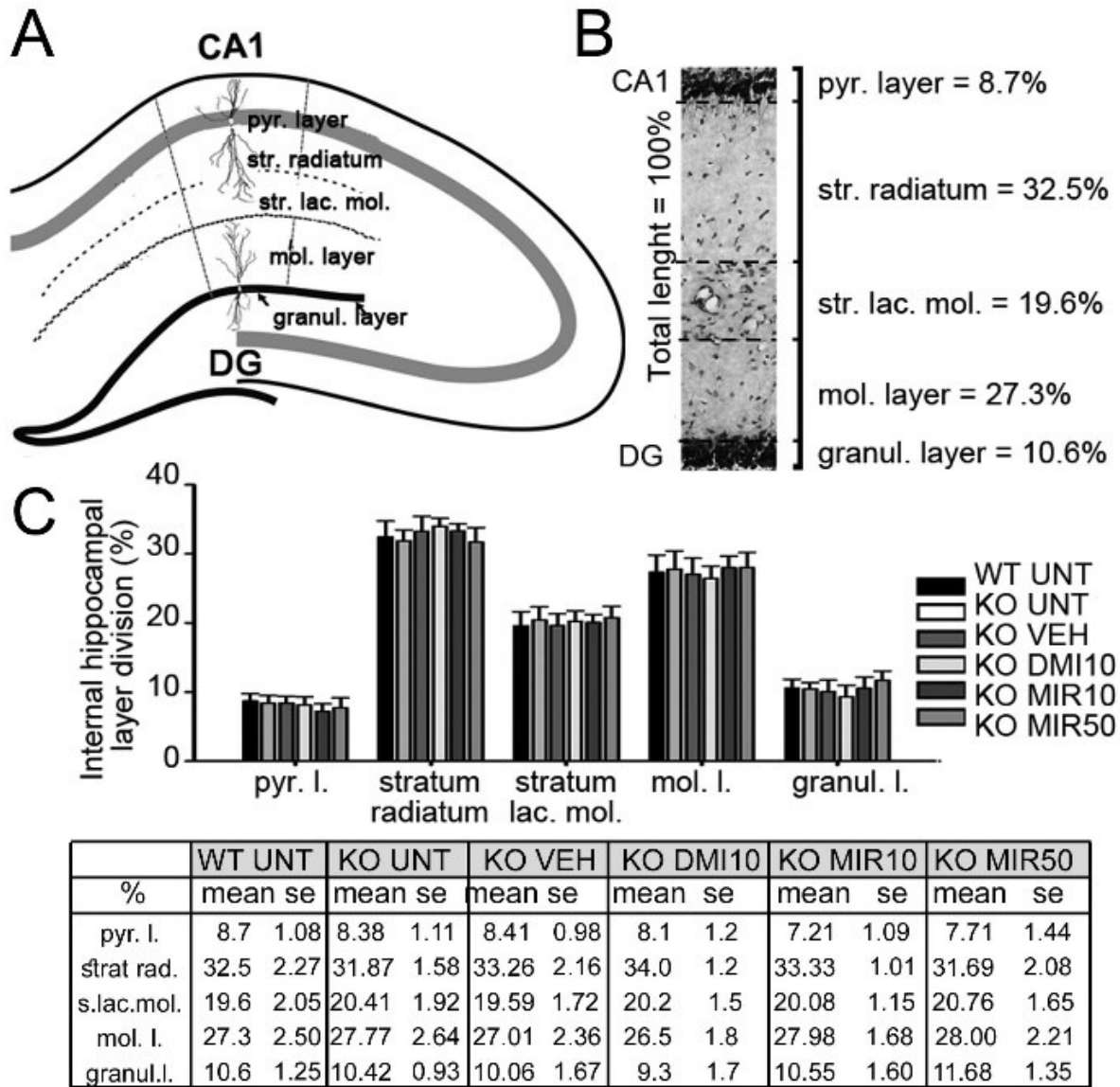
Suppl. Table 1.

Cortical interval	WT UNT	KO UNT	t-test
0-200 μm	1581 \pm 11.3 μm	1362 \pm 12 μm	p<0.001
200-400 μm	1557 \pm 12.5 μm	1346 \pm 9.03 μm	p<0.001
400-800 μm	1480 \pm 17.4 μm	1325 \pm 11.4 μm	p=0.002
800-1200 μm	1458 \pm 14.8 μm	1246 \pm 17.7 μm	p<0.001
Cortical layer	WT UNT	KO UNT	t-test
layer I	125.57 \pm 4.45 μm	117.8 \pm 6.51 μm	N.S.
layer II-III	383.68 \pm 11.12 μm	294.27 \pm 7.98 μm	p<0.001
layer IV	159.65 \pm 7.8 μm	147.3 \pm 2.4 μm	N.S.
layer V	416.98 \pm 17.33 μm	372.94 \pm 13.01 μm	N.S.
layer VI	440.18 \pm 9.54 μm	395 \pm 11.25 μm	p=0.022

Somatosensory cortical thickness in Wild Type and MeCP2 null untreated mice.

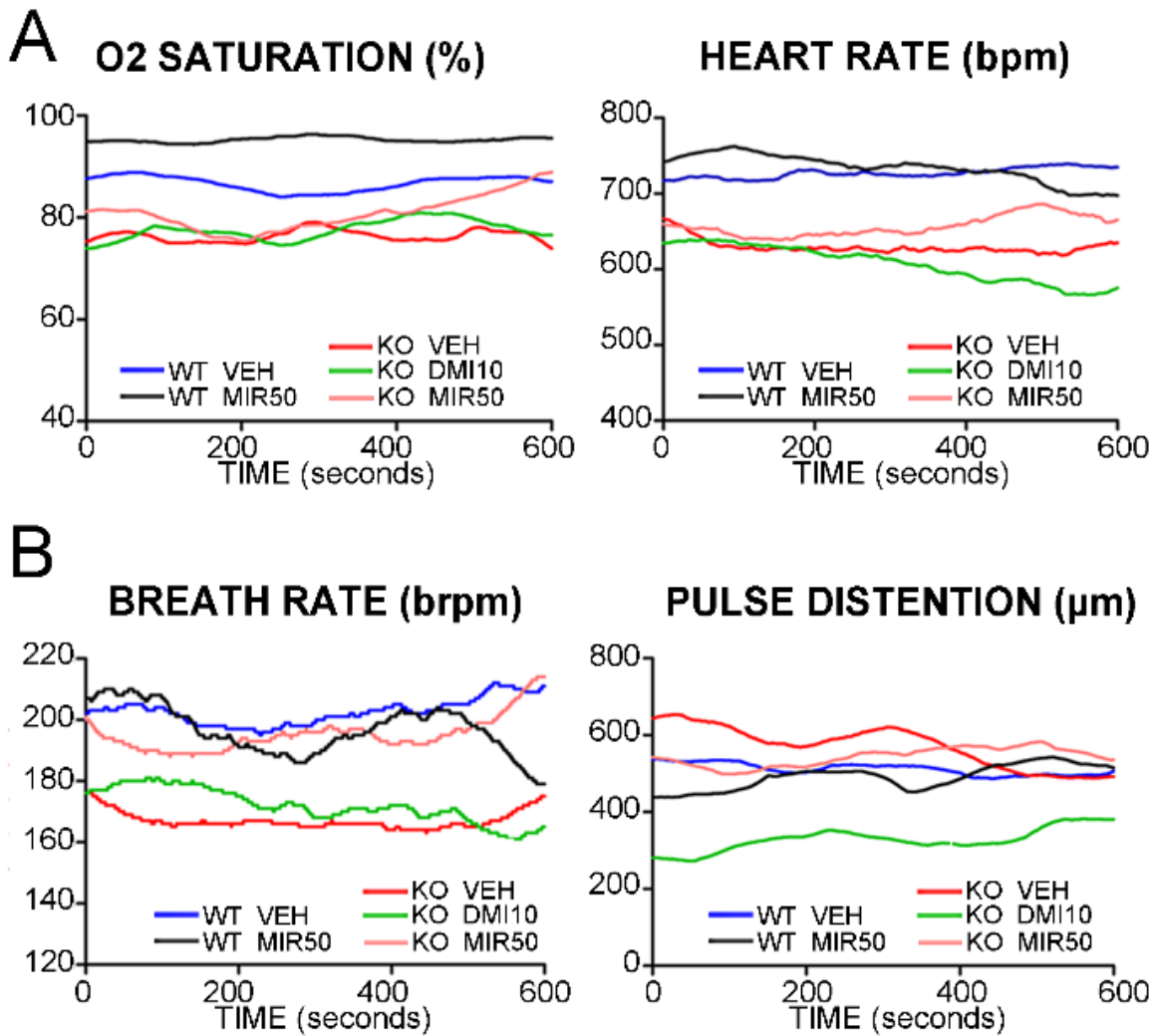
Measurements of total cortical thickness (in μm) at regular intervals every 400 μm 0 μm until 1,200 μm along the antero-posterior axis and measurements of cortical layers (from I to VI). Statistical analysis: t-test.

Suppl. Figure 1.



Hippocampal structure is not affected by the loss of MeCP2 or Mirtazapine treatment. (a-b) A representation of hippocampal structure and layers (*pyramidal layer*, *stratum radiatum*, *stratum lacunosum moleculare*, *molecular layer*, *granular layer*). (c) The proportion of each hippocampal layer based on the total thickness (=100%) in WT and KO untreated (UNT) mice and in KO mice treated with vehicle (vehic), Desipramine 10 mg/Kg (DMI10) and Mirtazapine 10-50 mg/Kg (MIR10-50) (n=3-5). Values are represented as percentage \pm SEM (*One way ANOVA*).

Suppl. Figure 2.



Data profile of the data recording for 13 minutes continuously. WT VEH = line blue; WT MIR50 = black; KO VEH = red; KO DMI10 = green; KO MIR50 = pink. Oxygen saturation (percentage); Heart rate in beat per minute; Breath rate in breath per minute; Pulse distention in µm.