Supplementary Material

Selective disruption of perineuronal nets in mice lacking Crtl1 is sufficient to make fear memories susceptible to erasure

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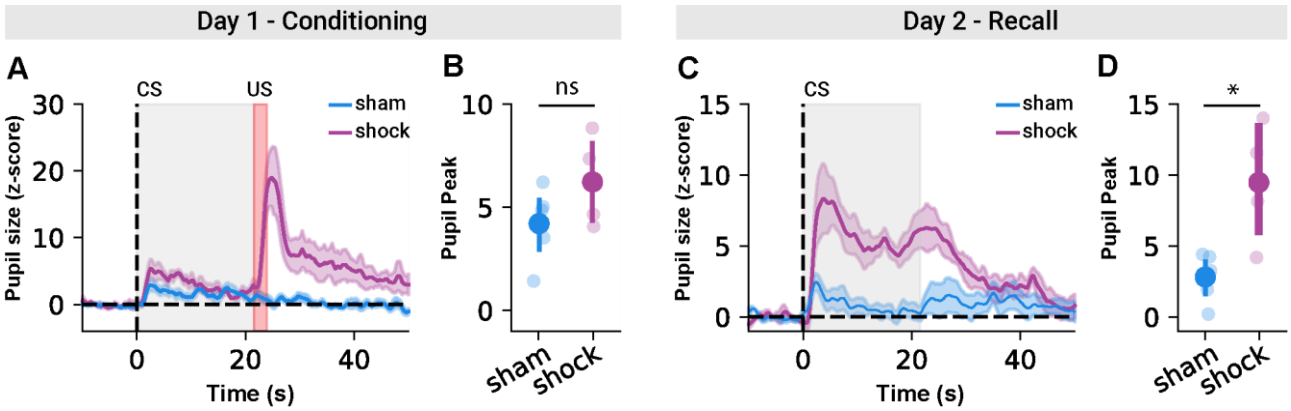

Figure S1: Pupillary responses during the virtual fear conditioning in shock and sham wilde type mice. [A] Average fluctuation of pupil size during the presentation of 5 CS (total CS duration 20 s) co-ter- minating (shock animals) or not (sham animals) with a US (2 s tail shock, 0.6 mA.). Gray shaded area represents the presentation of the CS and vertical dashed lines represent the onset of the CS. Red shaded area represents the presentation of the US. **[B]** Pupil peaks during the presentation of the 5 CS. We found no significant differences between grups but a trand in the pupillary response to CS in shock mice (Unpaired T-test p=0.352). Gray shaded area represents the presentation of the CS and vertical dashed lines represent the onset of the CS. **[C]** Average fluctuation of pupil size during the presentation of 5 CS the day after conditioning (Recall) in shock and sham mice. **[D]** Pupil peaks during the presenta- tion of the 5 CS. We found a significant differences between grups. In particular shock mice showed an higher pupillary response to CS compared to sham mice (Unpaired T-test p=0.0381). n = 6 sham, n = 4 shock. CS= Conditioned Stimulus; US = Unconditioned Stimulus; ns= not significant.

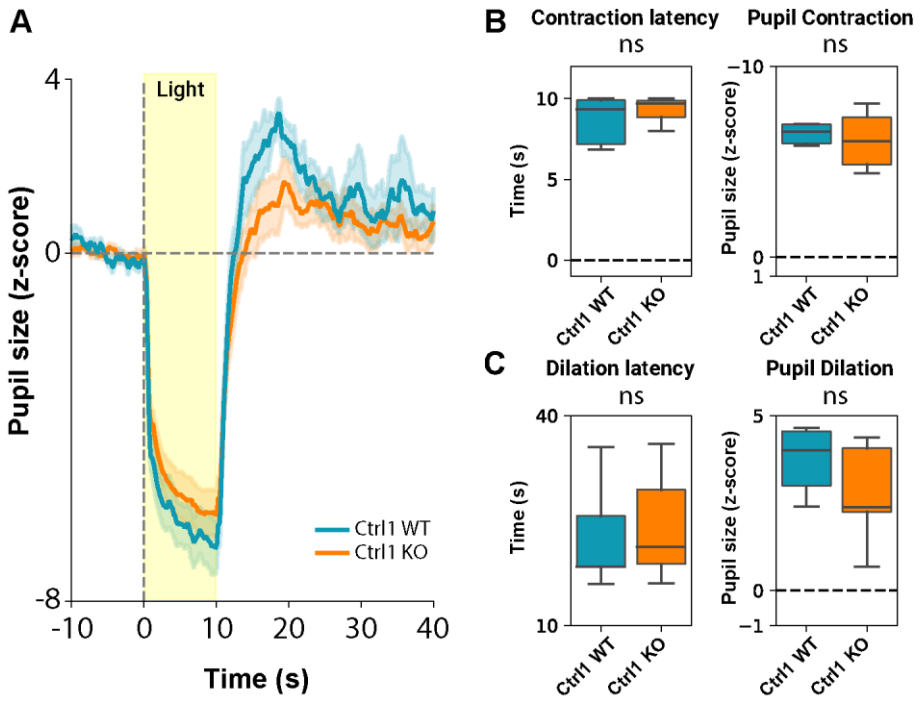

Figure S2: Pupillary Light Reflex in Ctrl1-WT and Ctrl1-KO mice. [A] Average fluctuation of pupil size during the presentation of the light flashes in Ctrl1-WT and Ctrl1-KO mice. Shaded area represents the presentation of the high luminance stimulus. Vertical dashed lines represent the onset of the visual stimulus. **[B]** On the left, the average contraction latency during the presentation of the light flashes. On the right, the average pupil size during contraction. For both the measures we found no significant differences between genotypes (contraction latency: Unpaired T-test p=0.404, pupil contraction: Unpaired T-test p=0.359). **[C]** On the left, the average re-dilation latency at the end of the light flashes. On the right, the average pupil size during re-dilation. For both the measures we found no significant differences between genotypes (contraction latency: Unpaired T-test p=0.759, pupil contraction: Unpaired T-test p=0.177). n = 10 Crtl1-KO, n = 11 Crtl1-WT. ns= not significant.