Oxytocin receptor activation rescues opioid-induced respiratory depression by systemic fentanyl in the rat

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Supplemental Information:

Figure S1

OT rescue of fentanyl OIRD is not reliant on rescue of cardio-depression.

(A) Representative phrenic nerve activity (PNA), PNA frequency responses, and blood pressure (mean arterial pressure, MAP - superimposed white line), to oxytocin (OT, 5 nmol/kg, i.v., n=5, grey) and vasopressin (VP, 5 nmol/kg, i.v., n=5, black) in the absence of fentanyl pretreatment. (B) Summary data for PNA arrest and MAP response post-OT (grey circles) or -VP (black squares). Grey horizontal line references MAP value at baseline. In B, P value denotes difference between OT and VP response by unpaired two-tailed t-test, while * and § denote significance (repeated measures two-way ANOVA with Sidak posthoc tests) of P=0.0148 and P<0.0001 vs. baseline and † denotes P=0.0034 for post-OT vs. post-VP. Mean bar added for clarity on summary dot plots. a.u. = arbitrary units.