# Supplemental Digital Content

## Contribution of μ opioid receptor-expressing dorsal horn interneurons to neuropathic pain

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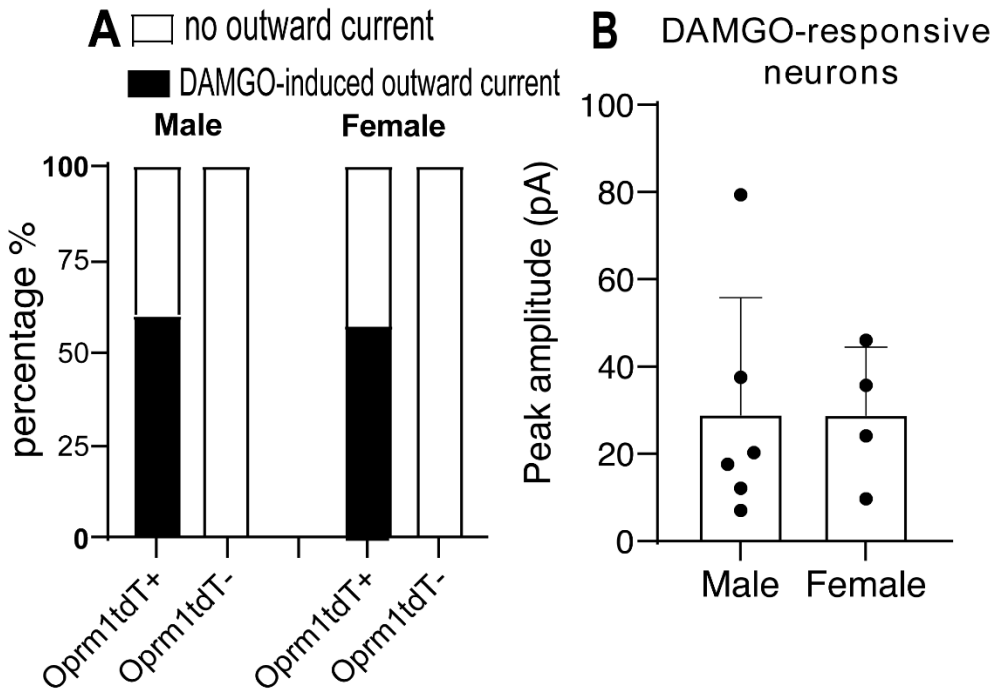
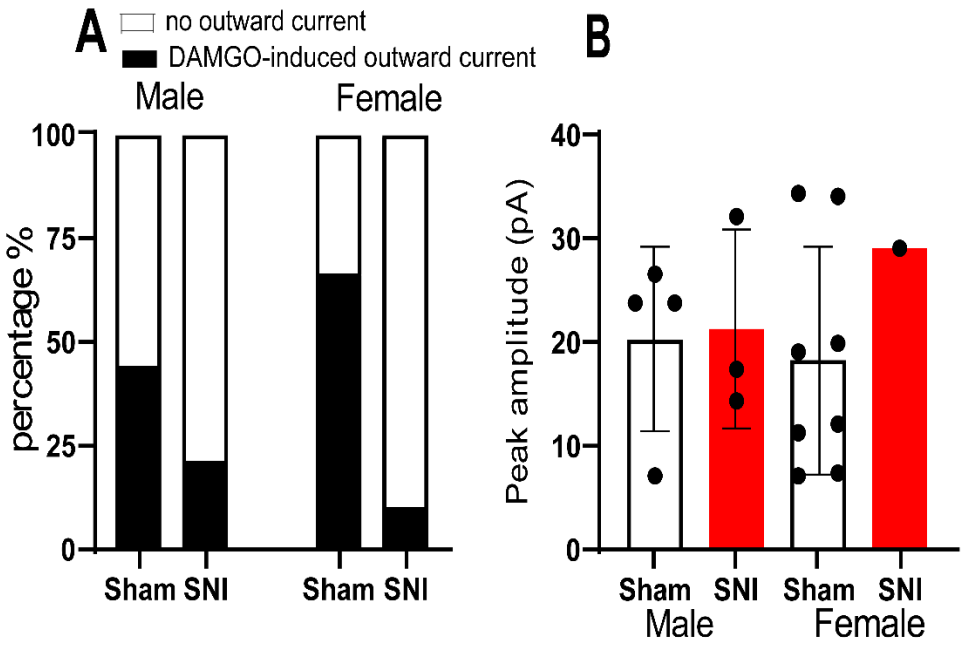
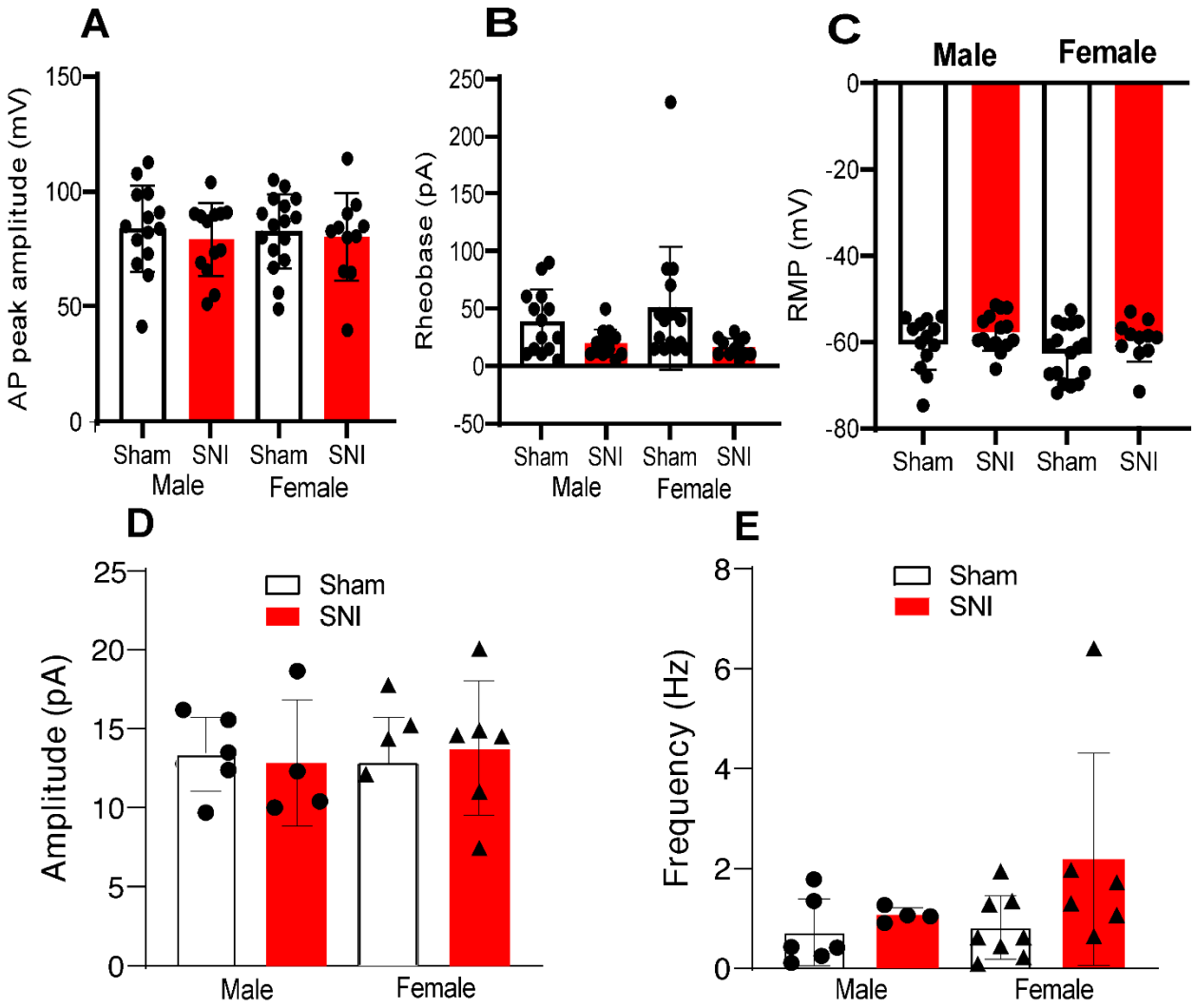



**Supplementary Figure 1. DAMGO induced an outward current in both male and female tdTomato-labelled MOR-INs. (A)** Mean amplitude of DAMGO-induced outward currents in Oprm1$^{tdT+}$ neurons in male (n=6 cells from 4 mice) and female (n=4 cells from 3 mice). **(B)** Proportion of Oprm1$^{tdT+}$ neurons that exhibited outward currents to DAMGO (1μM, 2 min) in male (n=10 neurons from 4 mice) and female (n=7 neurons from 3 mice). DAMGO did not evoke responses in Oprm1$^{tdT-}$ neurons (n=6 neurons from 2 male mice and n=3 neurons from 1 female mouse). Data are presented as mean ± SD. *These panels represent the data illustrated in Figures 3C-D, segregated by sex.*




**Supplementary Figure 2. Effects of spared nerve injury on the functional responsiveness of MOR-INs to DAMGO, segregated by sex. (A)** Proportion of Oprm1$^{tdT}$ neurons exhibiting DAMGO-induced outwards currents in sham male (n=9 neurons from 3 mice), SNI male (n=14 neurons from 4 mice), sham female (n=12 neurons from 4 mice), and SNI female (n=10 neurons from 3 mice) groups. **(B)** Peak amplitude of DAMGO-induced outward currents in sham male (n=4 neurons from 3 mice), SNI male (n=3 neurons from 2 mice), sham female (n=8 neurons from 4 mice), and SNI female (n=1 neurons from 1 mouse) groups. Data are mean ± SD. *These panels represent the data illustrated in Figure 5B-C, segregated by sex.*




**Supplementary Figure 3. Effect of spared nerve injury on intrinsic membrane excitability and spontaneous synaptic activity of Oprm1$^{tdT+}$ neurons, segregated by sex. (A)** Peak amplitude of action potentials in sham male (n=14 neurons from 3 mice), SNI male (n=13 neurons from 4 mice), sham female (n=16 neurons from 4 mice), and SNI female (n=11 neurons from 3 mice) groups. **(B)** Rheobase of action potentials in sham male (n=14 neurons from 3 mice), SNI male (n=13 neurons from 4 mice), sham female (n=16 neurons from 4 mice), and SNI female (n=11 neurons from 3 mice) groups. **(C)** The resting membrane potential of Oprm1$^{tdT+}$ neurons in sham male (n=13 neurons from 3 mice), SNI male (n=15 neurons from 4 mice), sham female (n=17 neurons from 4 mice), and SNI female (n=11 neurons from 3 mice) groups. Mean (**D**) amplitude and (**E**) frequency of sEPSCs exhibited by delayed firing neuron in sham male (n=6 neurons from 3 mice), SNI male (n=4 neurons from 4 mice), sham female (n=8 neurons from 4 mice), and SNI female (n=6 neurons from 3 mice) groups. Data are mean ± SD. *These panels represent the data illustrated in Figure 6A,B,C,F,G, respectively, segregated by sex.*