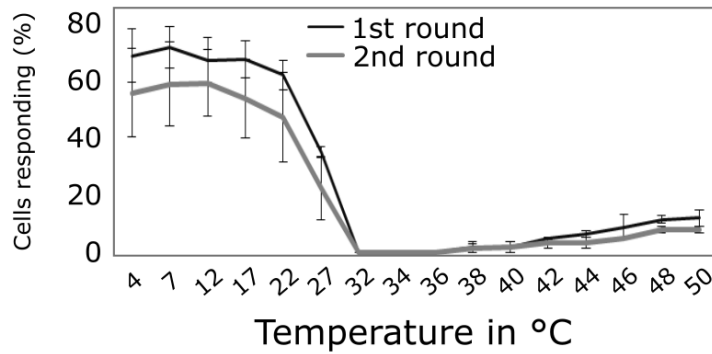
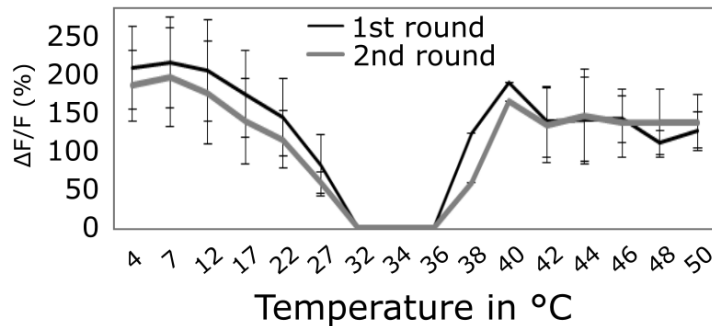


a)

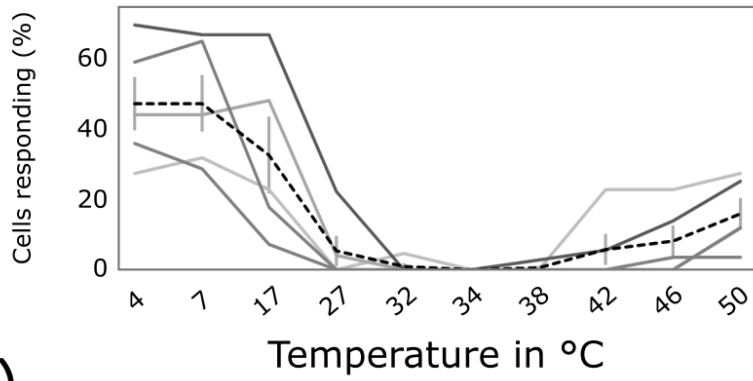


b)

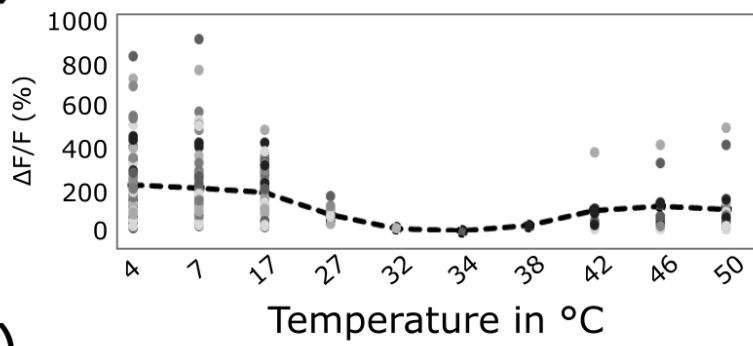


Supplemental figure 1. The effect of repeated stimulation on the response of lamina I projection neurons. **a)** Percentage of lamina I projection neurons responding to the first and second round of identical stimuli. A two-way ANOVA revealed no significant interaction between the percentage of responses with different stimulation temperature and the presence or absence of previous stimulation rounds, $F(15, 64) = 0.365$, $p = .983$. A direct comparison between the first and second stimulation showed a simple main effect of the order of stimuli ($p = 0.020$) but after Bonferroni correction for the number of comparisons (3x) this effect disappeared ($p = 0.06$). **b)** Intensity of lamina I projection neurons responses to the first and second round of identical stimuli. A two-way ANOVA revealed no significant interaction between the intensity of responses with different stimulation temperature and the presence or absence of previous stimulation rounds, $F(12, 42) = 0.083$, $p = 1.000$. A direct comparison between the first and second stimulation showed no simple main effect of the order of stimuli ($p = 0.446$). Data displayed as mean \pm SEM. $N = 3$ animals.

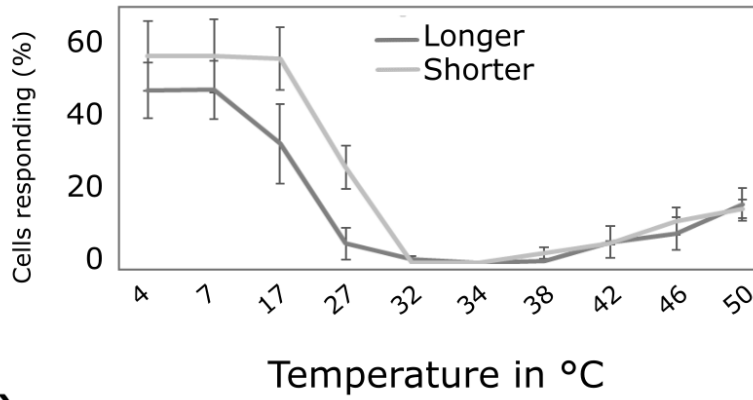
a)



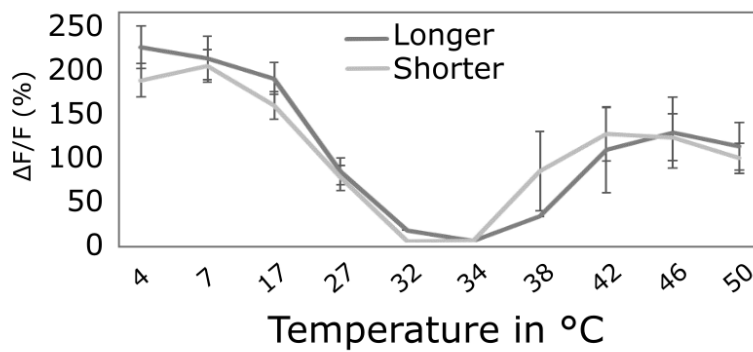
b)



c)



d)



Supplemental figure 2. The duration of stimulation had little effect on the response profile of lamina I projection neurons. **a)** Percentage of lamina I projection neurons responding to each thermal stimulus. Continuous lines represent individual experiments. Dashed line represents the average \pm SEM. $N = 5$. **b)** Intensity of the response to different types of thermal stimuli. Individual data points represent individual cells (shown with varying shades of grey), dashed line represents the average. N of animals = 5, n of cells = 128. **c)** Direct comparison between the percentage of cells responding during longer (30 seconds) and shorter (5 seconds) durations of thermal stimuli. Data displayed as mean \pm SEM. A two-way ANOVA revealed no significant interaction between the percentage of responses with different stimulation temperature and the duration of stimulation $F(9, 80) = 1.273, p = .998$. A direct comparison between longer and shorter stimulation showed a simple main effect of duration of stimulation ($p = 0.011$). This effect was present also after Bonferroni correction ($p = 0.033$). **d)** Direct comparison between the intensity of responses during longer and shorter durations of thermal stimuli. Data displayed as mean \pm SEM. A two-way ANOVA revealed no significant interaction between the intensity of response with different stimulation temperature and the duration of stimulation $F(7, 49) = 0.100, p = .264$. A direct comparison between longer and shorter stimulation periods showed no simple main effect of duration of stimulation ($p = 0.925$).