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Supplemental information

Neuron-glia interaction at the receptor level affects olfactory perception in adult *Drosophila*

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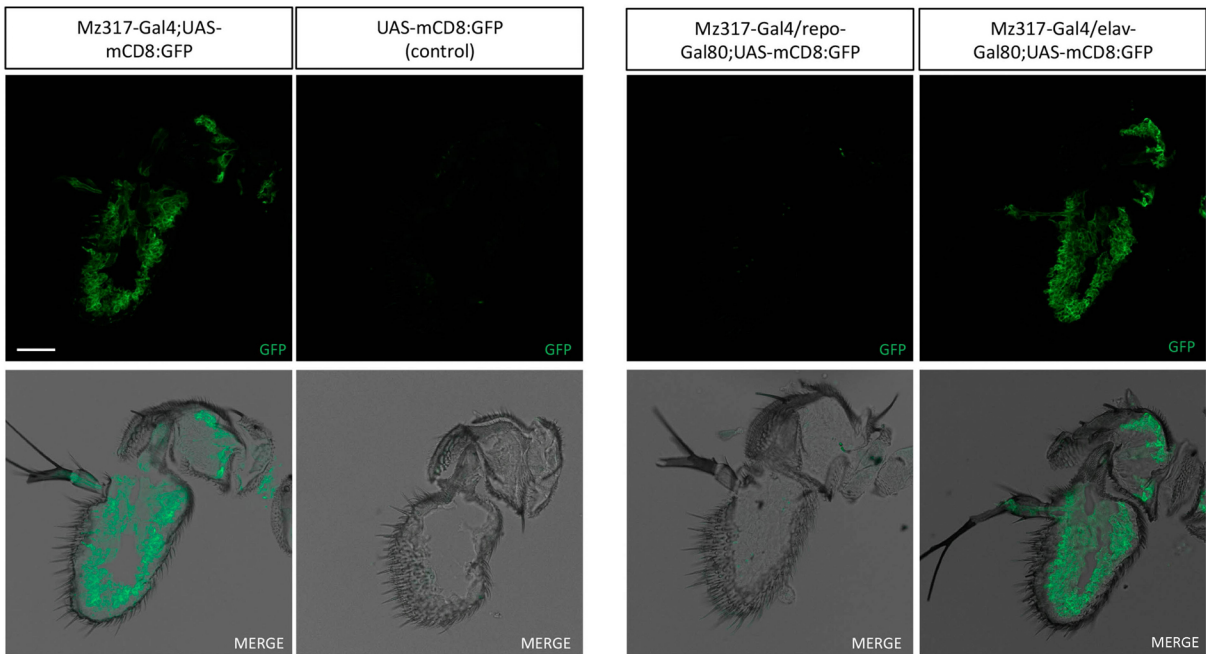


Figure S1.- Glial or neuronal characteristics of the Mz317 cells in the third antennal segment. Related to Figure 4. The original Mz317-Gal4 driver was used in combination with the repo glial driver and the panneuronal elav driver to direct the Gal80 element to restrict GFP marker expression in nonglial and nonneuronal cells, respectively. The repo-Gal80 combination was able to eliminate all GFP expression in the antennae, while the elav-Gal80 combination allowed GFP marker expression similar to that of the original Mz driver alone. This led us to the conclusion that the cells corresponding to the Mz317 driver in the antenna are glial cells. Scale-bar indicates 40 μm .

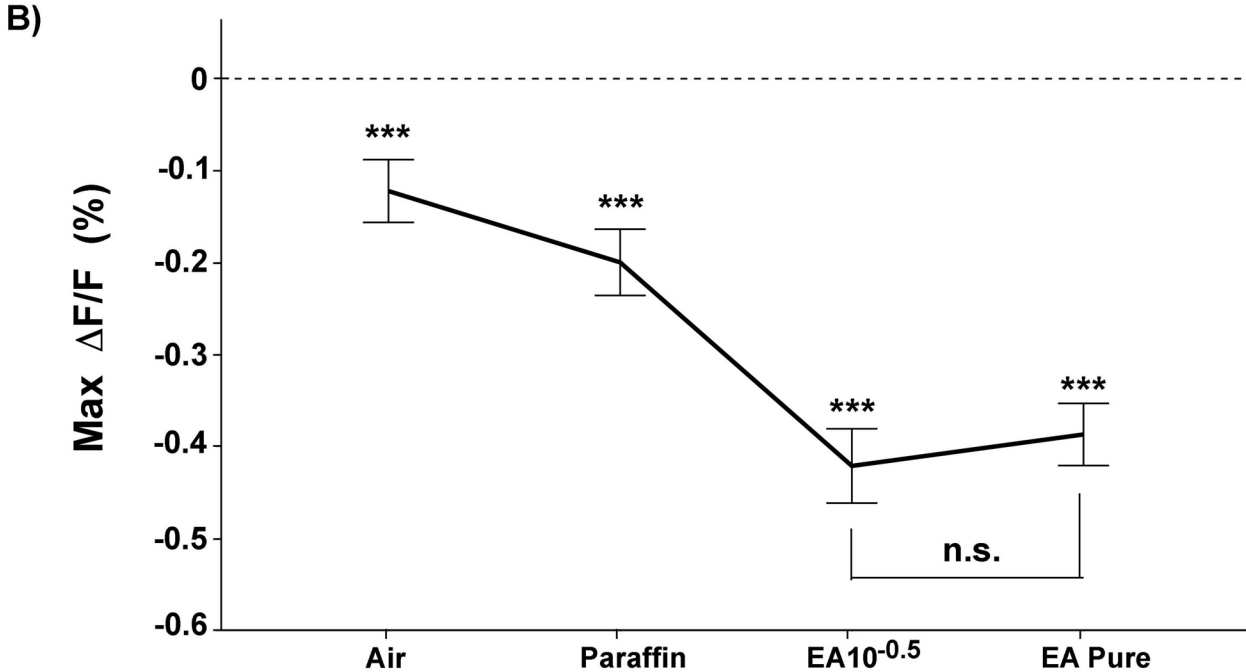
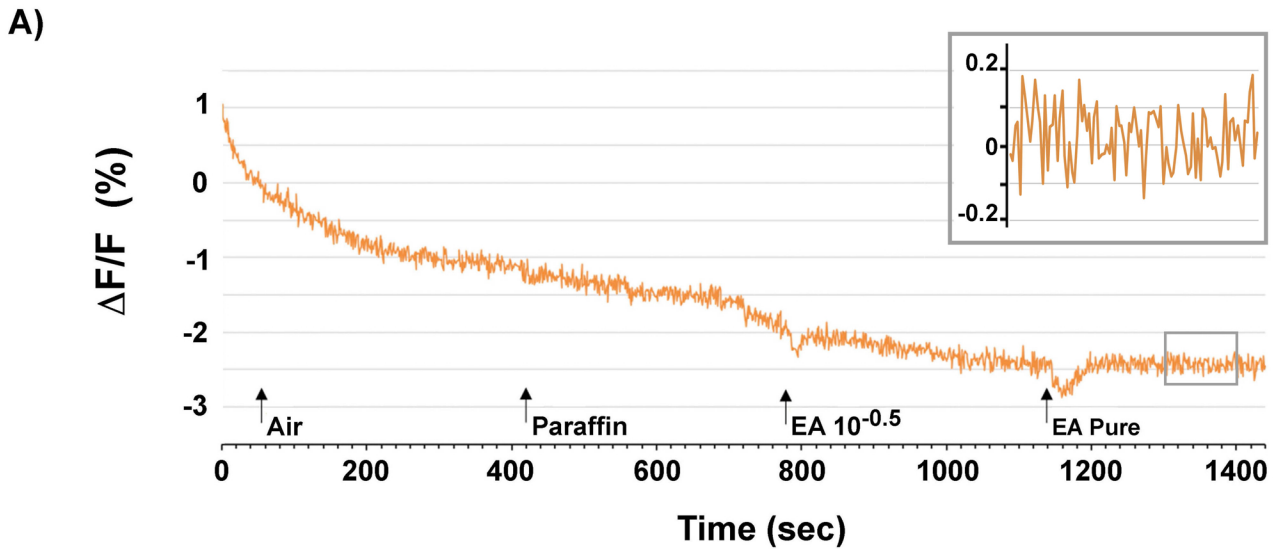


Figure S2.- Ca^{2+} imaging of the Mz317 antennal glial cells in response to several stimuli to discard artifactual responses. Related to Figure 6. A) Representative responses of a fly to 1.5 second pulses of air, the solvent paraffin oil and the $10^{-0.5}$ and pure concentrations (vol/vol) of ethyl acetate. The inset shows the noise level at the trace. As the response amplitude is calculated as the maximal deviation of the signal in response to the odor pulse from the average of 10 frames before the stimulus presentation, the noise from 0 to the maximal deviation stands between 0.10 and 0.15%. B) Dose-response curve of the mean response of 20 antennae expressed as the mean \pm SEM. An analysis of variance, ANOVA, of repeated measures followed by a post hoc comparison between means showed highly significant differences (***) = $P < 0.001$) among the responses for each stimulus compared to the others except for the responses to ethyl acetate $10^{-0.5}$ and pure ethyl acetate, which did not differ significantly from each other.