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Title

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Authors

Velez, Dario X Figueroa

Arreola, Miguel

Huh, Carey YL

et al.

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Publisher Correction: Juvenile depletion of microglia reduces orientation but not high spatial frequency selectivity in mouse V1

Dario X. Figueroa Velez, Miguel Arreola, Carey Y. L. Huh, Kim Green & Sunil P. Gandhi

Correction to: *Scientific reports* <https://doi.org/10.1038/s41598-022-15503-0>, published online 27 July 2022

The original version of this Article contained errors in Figure 3c and d, where the y-axis labels were incorrectly given. As a result,

Orientation Selectivity Index

now reads:

Spatial Frequency (cpd)

Orientation Selectivity Index

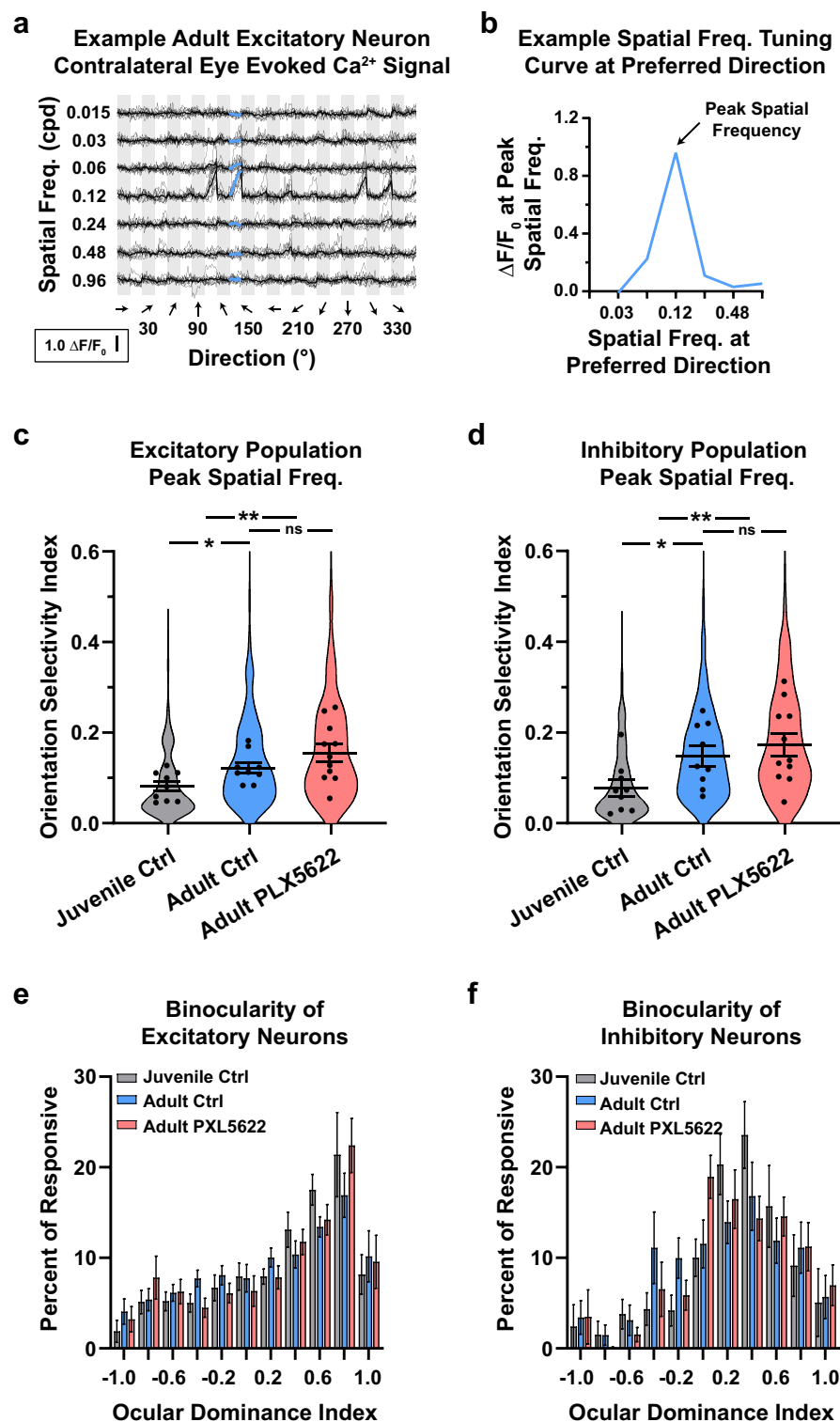
now reads:

Spatial Frequency (cpd)

The original Figure 3 and accompanying legend appear below.

The original Article has been corrected.

Published online: 24 January 2023



◀ **Figure 3.** The caption to be typeset alongside it is: Microglia are not required for the developmental emergence of high spatial frequency tuning nor maintenance of normal binocularity in V1. **(a)** Example visually evoked calcium signal to presentations of stimuli through the contralateral eye in adult V1. The x-axis is organized by grating direction. The y-axis is organized by increasing grating spatial frequency. Thin and thick black lines represent individual and trial averaged traces, respectively. The blue line at 120° represents the averaged responses to different spatial frequencies directions at the neuron's preferred direction. This trial-averaged trace was used to generate this neuron's spatial frequency tuning curve and peak spatial frequency. **(b)** The spatial frequency tuning curve for the example neuron in **(a)**. The peak spatial frequency for excitatory **(c)** and inhibitory **(d)** neurons. Violin plots represent the population distribution in juvenile (grey) and adult control (blue) mice, and adults on PLX5622 chow (red). Black circles represent an animal's mean peak spatial frequency. **(e)** During normal development, excitatory neurons shift toward higher spatial frequencies (Juvenile Control = 0.08 ± 0.01 vs Adult Control = 0.12 ± 0.01 , $p = 0.035$). The peak spatial frequency of mice fed PLX5622 (0.16 ± 0.02) was higher than juvenile ($p = 0.002$) and comparable to adult control mice ($p = 0.253$). **(f)** Like their excitatory counterpart, inhibitory neurons shift toward higher spatial frequencies during normal development (Juvenile Control = 0.08 ± 0.02 vs Adult Control = 0.15 ± 0.02 , $p = 0.043$). The peak spatial frequency of mice fed PLX5622 (0.18 ± 0.03) was higher than juvenile ($p = 0.006$) and comparable to adult control mice ($p = 0.450$). Histogram of ocular dominance index for excitatory **(e)** and inhibitory **(f)** neurons in juveniles (grey), adults (blue), and mice lacking microglia (red). Microglia depletion did not alter the established binocularity of neurons in V1 (Juvenile Control = 0.45 ± 0.08 vs Adult Control = 0.30 ± 0.08 cpd, vs Adult PLX5622 = 0.36 ± 0.11). $n_{\text{JuvenileControl}} = 9$ mice, $n_{\text{AdultControl}} = 9$ mice, $n_{\text{AdultPLX5622}} = 11$ mice. Error bars represent the S.E.M.



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