Correction

Correction: Exocytosis of ATP From Astrocytes Modulates Phasic and Tonic Inhibition in the Neocortex

The PLOS Biology Staff

The authors noticed an error in Panel 2A of Figure 2, and they have now provided a corrected version here.

Figure 2. Ca^{2+} -dependent release of ATP can be evoked in the cortical astrocytes of the wild-type but not of the dn-SNARE mice. Release of ATP from cortical astrocytes of wild-type (A, B) and dn-SNARE mice (C) was detected using the sniffer cells as described in Figure 1. (A) Elevation of cytosolic Ca^{2+} level was elicited in the astrocytes by UV uncaging and by rapid application of the agonist of PAR-1 metabotropic receptor TFLLR (10 μ M) or the agonist of glutamate ionotropic receptor NMDA (20 μ M). (B) Inhibition of vacuolar H-ATPase in the astrocytes with Bafilomycin A1 (1 μ M for 2 h) dramatically decreased both the amplitude and frequency of phasic currents. (C) Elevation of the Ca^{2+} level in any of the dn-SNARE astrocytes did not lead to activation of phasic purinergic currents in the sniffer cell. Insets in (A–C) show examples of individual phasic currents recorded at moments indicated; scale bars are 50 ms and 10 pA. (D) The amplitude and decay time distributions of purinergic currents recorded in the HEK293-P2X2 cells after stimulation of the astrocytes; data were pooled for number of experiments indicated in (E). The grey dotted line shows the best fit of quantal model to the distribution of UV-activated currents. (E) The pooled data (mean $\pm$ SD for indicated numbers of experiments) on net release of ATP were assessed as total charge transferred by spontaneous currents in the sniffer cell. The effects of bafilomycin and dn-SNARE expression on net charge transferred by purinergic currents were statistically significant at $p = 0.005$ (two-population t test).

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Reference

- Lalo U, Palygin O, Rasooli-Nejad S, Andrew J, Haydon PG, et al. (2014) Exocytosis of ATP From Astrocytes Modulates Phasic and Tonic Inhibition in the Neocortex. *PLoS Biol* 12(1): e1001747. doi:10.1371/journal.pbio.1001747

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