## CORRECTION

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# Correction to: The role of microglia membrane potentialin chemotaxis



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### Correction to: J Neuroinflammation 18, 21 (2021) https://doi.org/10.1186/s12974-020-02048-0

Following publication of the original article [1], the authors noticed an incorrect Fig. 1 image and incorrect panel "e" background color on the image of Fig. 3 in the published version of this article. Presented here are the corrected Figs. 1 and 3. The original article has been updated.

Published online: 28 January 2021

#### Reference

 Laprell L, Schulze C, Brehme ML, et al. The role of microglia membrane potential in chemotaxis. J Neuroinflammation. 2021;18:21 https://doi.org/10. 1186/s12974-020-02048-0.

The original article can be found online at https://doi.org/10.1186/s12974-020-02048-0.

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ChETA, green). After injection of (Z)-4-hydroxytamoxifen, the tdTomato and ChETA are expressed in microglia. **b** Illustration of the Channelrhodopsin-variant ChETA activated by blue light. Scale bar 25 µm. **c** Immunostaining using antibodies against the reporter (tdTomato red) and microglia (iba1 - cyan). **d** Graphic illustration of the hippocampal structure and the investigated area for microglia morphology in e (red square). **e** Z-projection of confocal images acquired for Sholl analysis of microglia at 3, 13, 29 DIV, and in vivo. Scale bar: 25 µm. **f** Confocal image of a microglia cell in organotypic slice culture which was fixed with PFA and stained against the microglia marker iba1. Overlay with IMARIS analysis (magenta). **g** Result of microglia branch detection with color coding by branching level. **h** Sholl analysis of microglia over time (number of intersections versus distance from cell body). **i** Quantification of % microglia cells between dentate gyrus and CA1 relative to total cell count (DAPI)



free area around the laser damage (black polygon) at different time points of the experiment. **f** Relative laser damage response measured as microglia-free area. Black: Control slices (no construct) with light stimulation (n = 8 areas, 5 slices). Gray: Experiments with ChETA expression in microglia, but without light stimulation (n = 7 areas, 4 slices). Blue: Slices with ChETA expression in microglia combined light stimulation (n = 11 areas, 7 slices). Insert: Graphic representation of light stimulation protocol between stack acquisitions. 2-way ANOVA (‡ control480 – ChETA480, p < 0.001, († ChETA no light – ChETA480, p < 0.01). **g** Time to 50% engulfment was prolonged by optogenetic depolarization. **h** 9 min after injury, the microglia-free area was larger when microglia were depolarized. **g**, **h** One-way ANOVA with Tukey's post hoc comparison (\*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001)