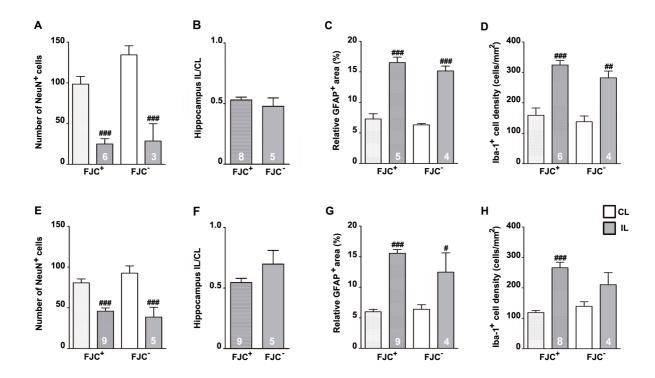
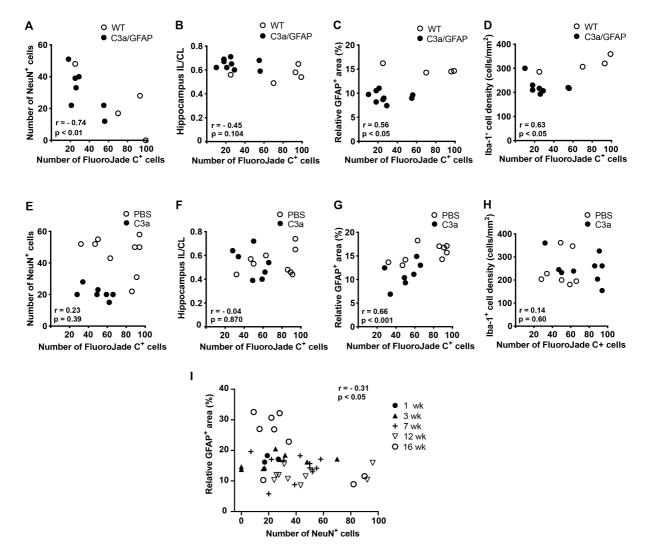


Supplementary Figure 1. Brain histomorphology does not differ at 3 and 7 weeks after sham surgery. (A and B) Relative size of the left (ipsilesional, IL) hemisphere (A) and hippocampus (B), (C) number of NeuN<sup>+</sup> cells, (D) relative GFAP<sup>+</sup> area, and (E) density of Iba-1<sup>+</sup> cells in the left CA3 of mice 3 and 7 weeks after sham surgery. CL, contralesional. Data were analyzed by two-tailed unpaired t test. Numbers in the bars are numbers of mice. Values are mean  $\pm$  SEM.



Supplementary Figure 2. Mice with and without FJC<sup>+</sup> cells in CA3 do not differ in brain histomorphology after HI. (A) Number of NeuN<sup>+</sup> cells, (B) relative size of the ipsilesional hippocampus, (C) relative GFAP<sup>+</sup> area, and (D) the density of Iba-1<sup>+</sup> cells in CA3 of mice 3 weeks after HI induction. (E) Number of NeuN<sup>+</sup> cells, (F) relative size of the ipsilesional hippocampus, (G) relative GFAP<sup>+</sup> area, and (H) the density of Iba-1<sup>+</sup> cells in CA3 of mice 7 weeks after HI induction. IL, ipsilesional; CL, contralesional.  $^{\#}P < 0.05$ ,  $^{\#}P < 0.01$ ,  $^{\#\#}P < 0.001$  vs. contralesional. Data were analyzed by two-tailed unpaired t test (A, E) or two-way ANOVA and Tukey's posthoc test (B–D, F–H). Numbers in the bars are numbers of mice. Values are mean  $\pm$  SEM.



Supplementary Figure 3. Scatterplots of selected correlations between measures of HI-induced injury, neurodegeneration and reactive gliosis in CA3 after HI. Correlation between the number of FJC<sup>+</sup> cells and (A) the number of NeuN<sup>+</sup> cells, (B) relative size of ipsilesional hippocampus, (C) relative GFAP<sup>+</sup> area, and (D) the density of Iba-1<sup>+</sup> cells in the CA3 3 weeks after HI, based on data from WT and C3a/GFAP mice as shown in Fig. 3. Correlation between the number of FJC<sup>+</sup> cells and (E) the number of NeuN<sup>+</sup> cells, (F) relative size of ipsilesional hippocampus, (G) relative GFAP<sup>+</sup> area, and (H) the density of Iba-1<sup>+</sup> cells in CA3 at 7 weeks after HI, based on data from WT mice treated with PBS and C3a as shown in Fig. 5. (I) Correlation between the number of NeuN<sup>+</sup> cells and relative GFAP<sup>+</sup> area, based on combined data from all time points after HI induction as shown in Fig. 1C and Fig. 2B. r, Pearson's correlation coefficient.