Supplemental Information

Defective fractalkine-CX3CR1 signaling aggravates neuroinflammation and affects recovery from cuprizone-induced demyelination

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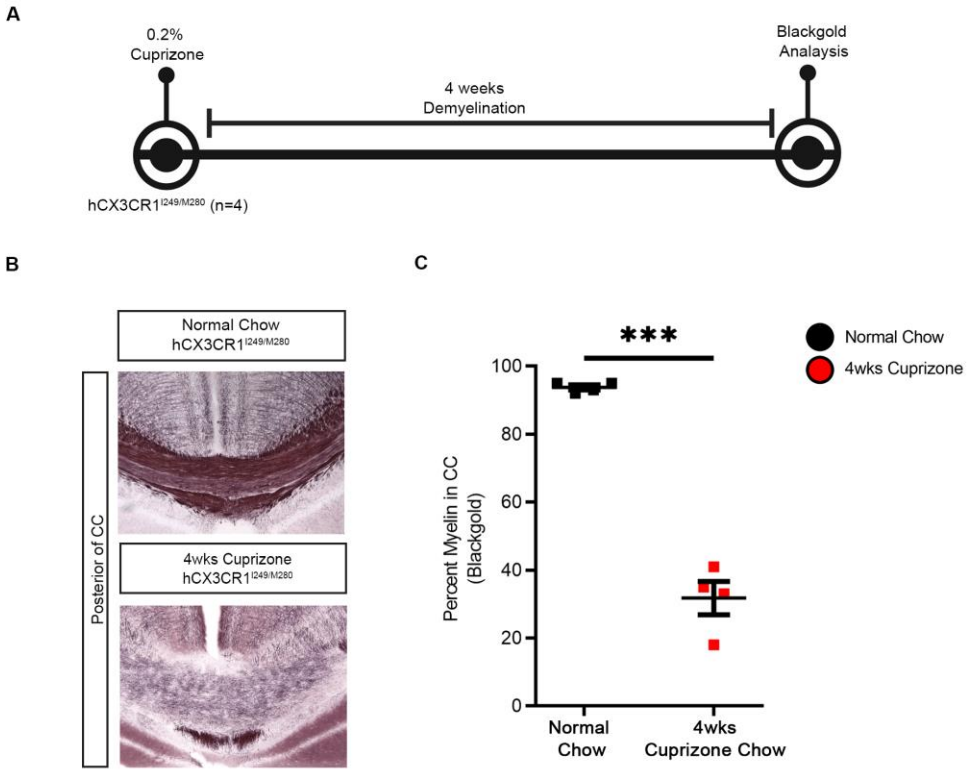
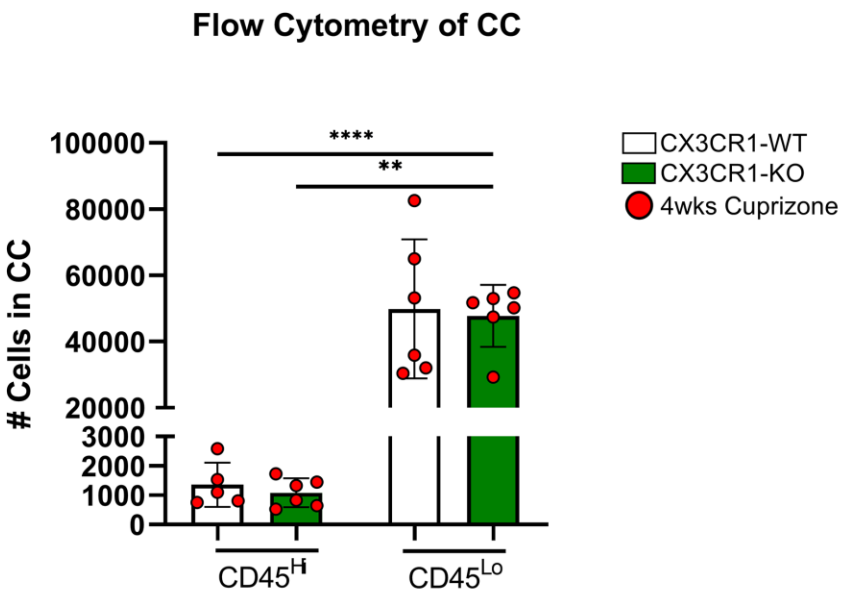
Supplementary Figure 1



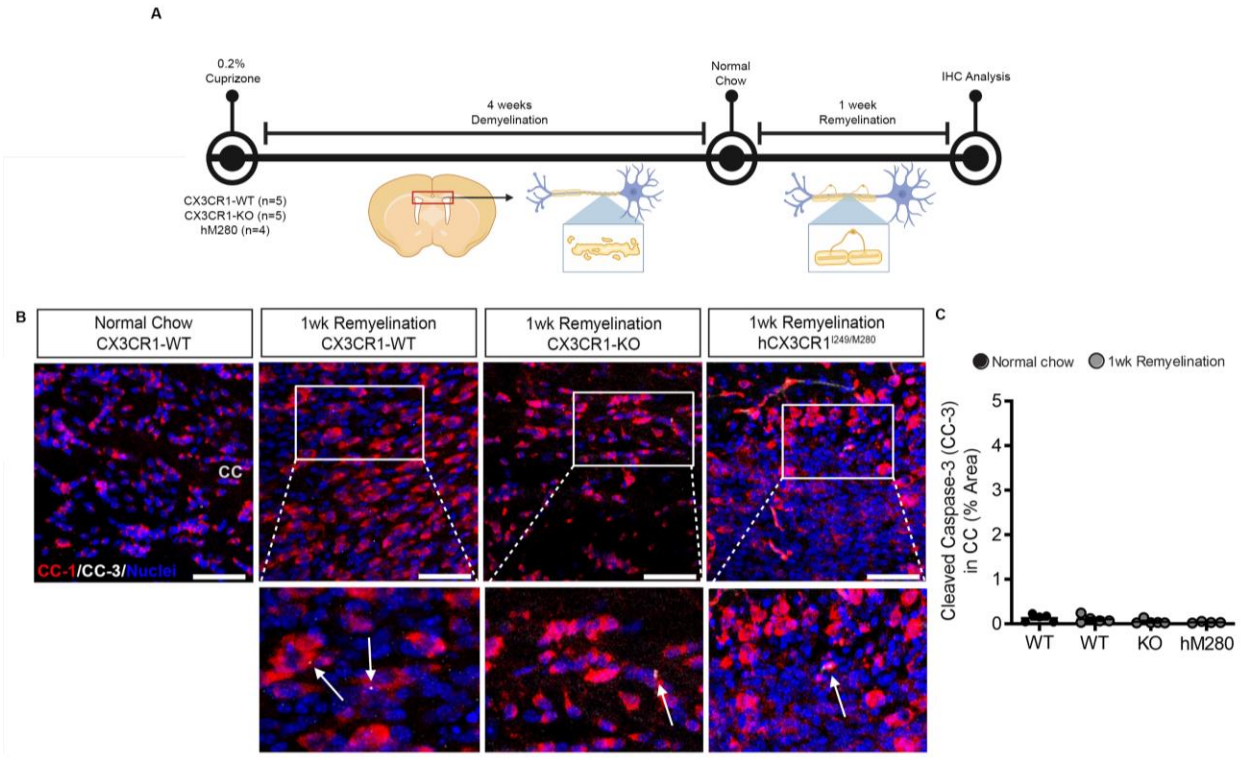
Supplementary Figure 1. Histological analysis of myelin in hCX3CR1$^{I249/M280}$ mice. A, Experimental design for 4 wks cuprizone-induced demyelination and downstream analyses in h*CX3CR1*$^{I249/M280}$ mice. **B**, Representative images of brain sections from h*CX3CR1*$^{I249/M280}$ mice fed normal chow or cuprizone, stained for Blackgold. **C**, Image quantification of myelin staining in the posterior of the corpus callosum as shown in **B**. Data are mean ± SEM for n = 4 per group, each dot represents an individual mouse. ***<0.001 using Mann-Whitney two-tailed t-test.

Supplementary Figure 2



Supplementary Figure 2. Flow cytometric analysis of resident and infiltrating myeloid cells following acute cuprizone. Flow cytometric analysis showing cell numbers of CD45hiCD11b+ (infiltrating) and CD45loCD11b+ (resident) cells from corpus callosum of CX3CR1-WT and CX3CR1-KO mice fed cuprizone. Date are mean ± SEM for *n* = 5-6 mice per group, each dot represents an individual mouse. ***<0.001 by one-way ANOVA followed by Tukey's posttest.

Supplementary Figure 3



Supplementary Figure 3. Histological analysis of cell death in mature oligodendrocytes. A, Experimental design for remyelination studies following cuprizone-induced demyelination. **B**, Representative images of brain sections from CX3CR1-WT, CX3CR1-KO and h*CX3CR1*$^{I249/M280}$ mice following 1wk remyelination (4wks cuprizone + 1 wk normal chow) or fed normal chow immunostained for CC-1 (red) and CC-3 (white). **C**, Image quantification of CC-3 staining in the posterior of the corpus callosum as shown in **B**. Data are mean ± SEM for *n* = 4-5 per group, each dot represents an individual mouse.