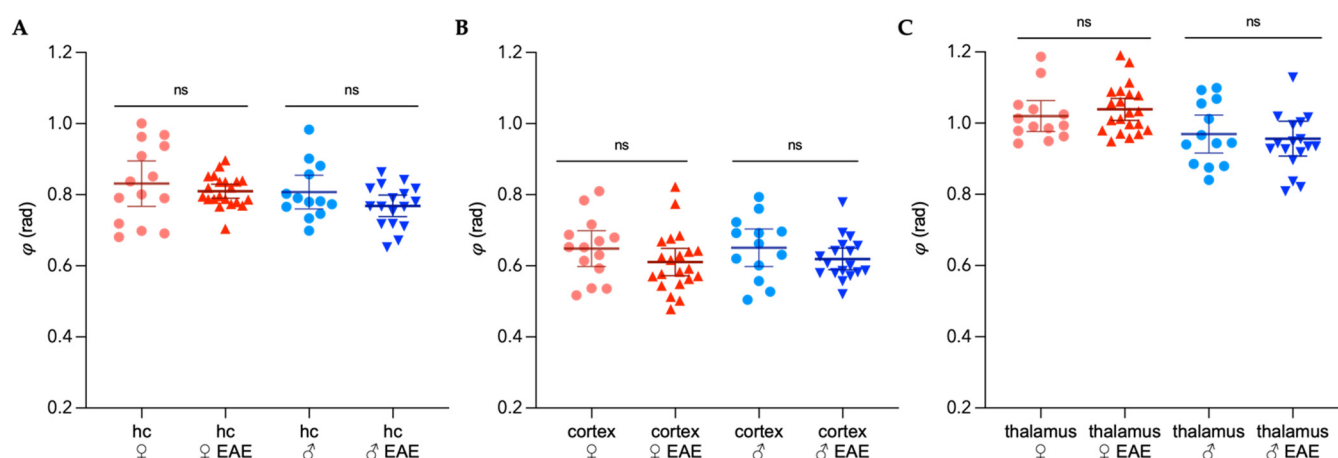


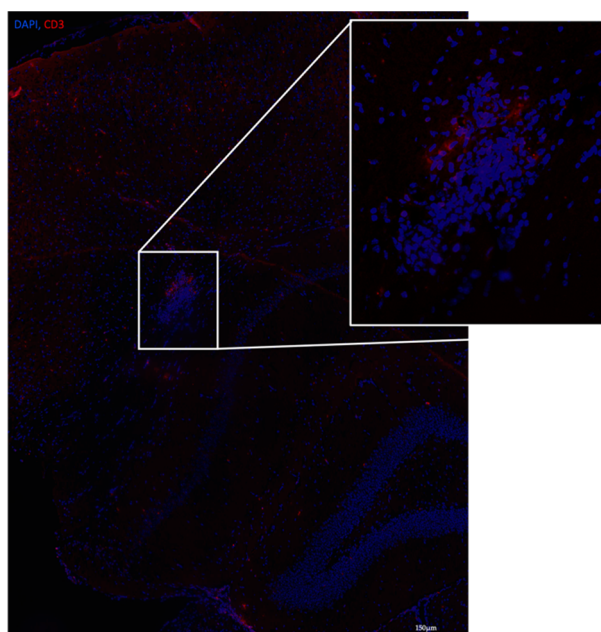
## Supplementary Materials

**Table S1:** Gene symbols and corresponding primers for TaqMan® assays.

gene symbol	gene name	amplicon length	TaqMan® Assay ID
<i>Lama4</i>	laminin, alpha 4	81	Mm01193660_m1
<i>Lama5</i>	laminin, alpha 5	64	Mm01222029_m1
<i>Col1a1</i>	collagen, type I, alpha 1	89	Mm00801666_g1
<i>Col4a1</i>	collagen, type IV, alpha 1	74	Mm01210125_m1
<i>Fn1</i>	fibronectin 1	58	Mm01256744_m1
<i>Hprt1</i>	hypoxanthine guanine phosphoribosyl transferase	131	Mm03024075_m1



**Figure S1.** Regional distribution of sex-specific fluidity  $\phi$  in the midbrain of the mouse in healthy and EAE. (A) hippocampus (hc), (B) cortex and (C) thalamic area; light red = healthy female, dark red = EAE female, light blue = healthy male, dark blue = EAE male. Representation of individual data points with mean and 95%CI.  $n_{\text{female naive}} = 14$ ,  $n_{\text{male naive}} = 13$ ,  $n_{\text{female EAE}} = 21$ ,  $n_{\text{male EAE}} = 18$ . Group comparison performed with unpaired  $t$  test with Welch correction.



**Figure S2.** Singular cortical lesion in the midbrain in male EAE, adjacent to the hippocampus. CD3 (red) and DAPI (blue). Scale bar = 150  $\mu\text{m}$ .