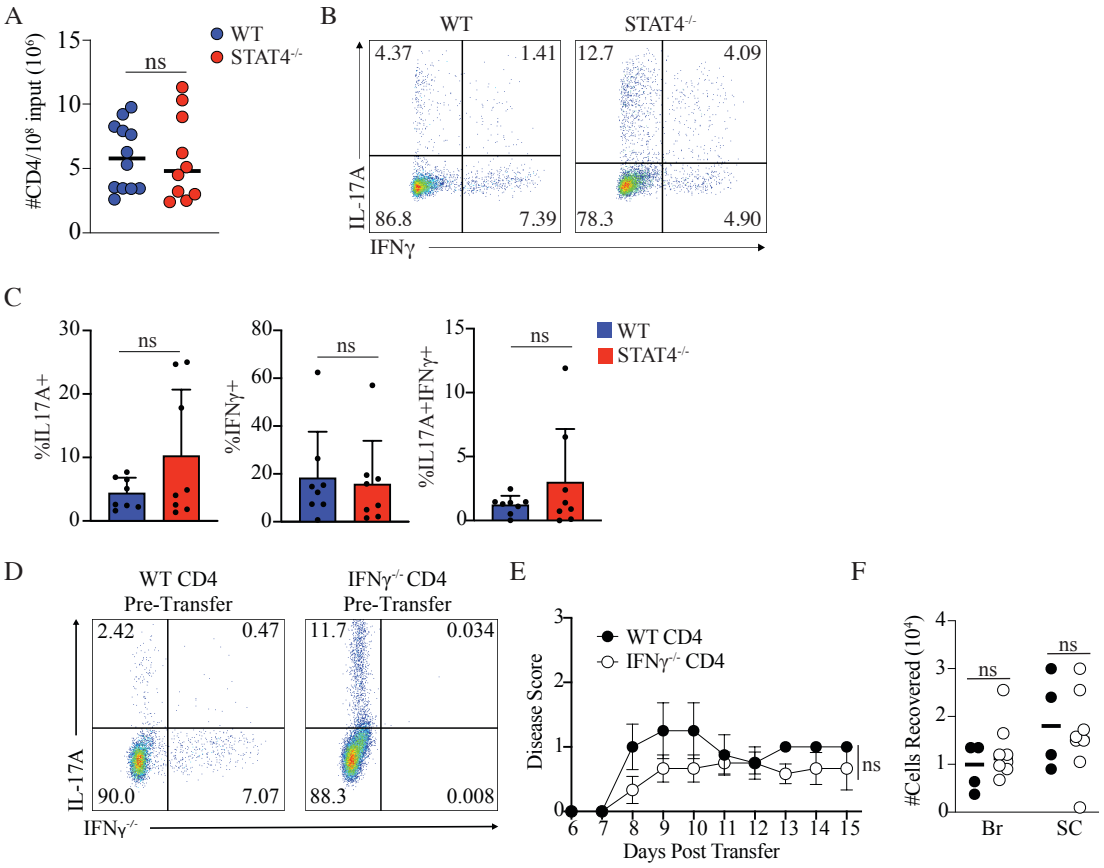

Figure S1: WT and STAT4-/- donor cells are similar prior to transfer. (A-C) Splenocytes were isolated from WT or STAT4-/- previously immunized mice and cultured under Th17 conditions for three days. (A) Number of CD4+ T cells recovered after Th17 in vitro differentiation. (B) Representative flow diagram of WT and STAT4-/- CD4 T cells prior to transfer (gated on CD4+ T cells). (C) Frequency of IL-17A+, IFNγ+ and IL-17A+IFNγ+ CD4+ T cells. (D-F) Splenocytes were isolated from WT or IFNγ-/- previously immunized mice and cultured under Th17 conditions for three days. (D) Representative flow diagram of IL-17A donor cells prior to transfer (gated on CD4+ T cells) (E) Disease was monitored daily. (F) Donor cells recovered in the CNS at the peak of disease. Unpaired T test; ns = not significant, *=p<0.05. **=p<0.01; ***=p<0.001; ****=p<0.0001.

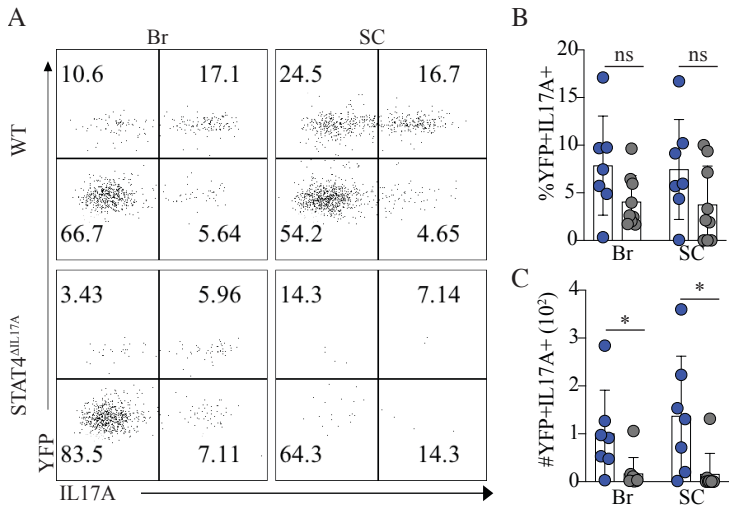

Figure S2: STAT4 is required for YFP+IL17A+ CD4 T cells in the CNS. WT and STAT4$^{\Delta Th17}$ mice were immunized. Brain and spinal cord were analyzed at the peak of EAE disease. (A) Representative flow diagram of brain and spinal cord showing IL-17A and YFP from WT or STAT4$^{\Delta Th17}$ mice (gated on CD4+ T cells). (B) Frequency and (C) number of IL17A+YFP+ at the peak of disease (n=7-9, 2 independent experiments). Unpaired T test; ns = not significant, *=p<0.05. **=p<0.01; ***=p<0.001; ****=p<0.0001.