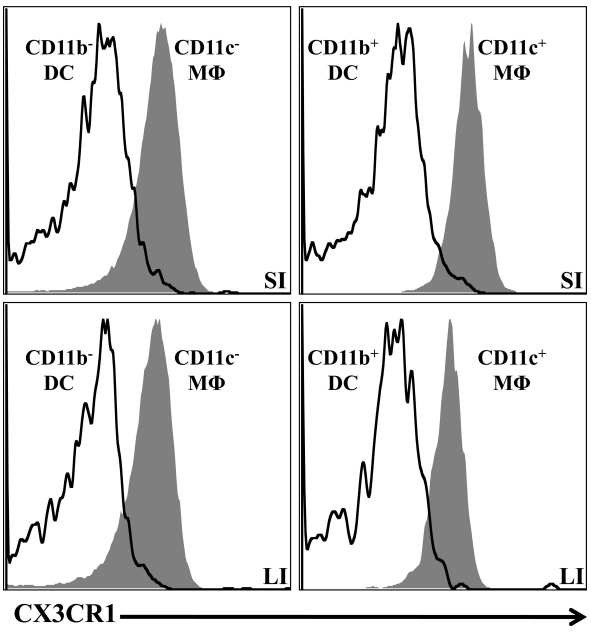


**Figure S1. LP MΦ express CX3CR1**
CX3CR1 surface expression in LP MΦ (solid histograms) and DCs (open histograms) in the small (SI) and large (LI) intestine of CX3CR1$^{+/+}$ mice, assessed by flow cytometry and gated as in Figure 1A. Data are representative of three independent experiments.

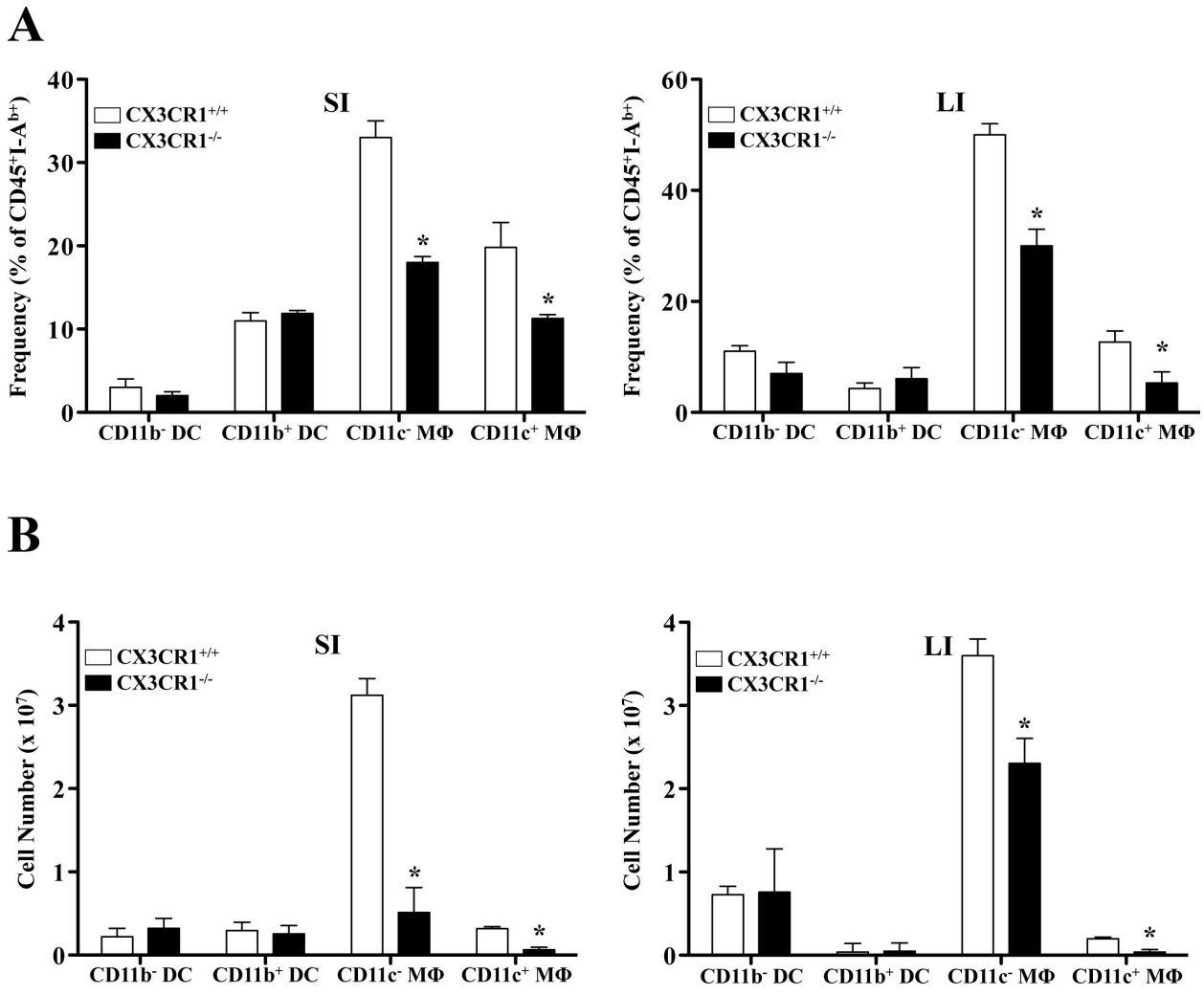


**Figure S2. CX3CR1$^{-/-}$ mice have a specific reduction in LP MΦ**
A) Percentage of CD45$^{+}$ MHC-II$^{+}$ MΦ and DCs in the small (SI) and large (LI) intestine of CX3CR1$^{-/-}$ or CX3CR1$^{+/+}$ mice. B) Total cellularity of CD45$^{+}$ MHC-II$^{+}$ MΦ and DCs in the small (SI) and large (LI) intestine of CX3CR1$^{-/-}$ or CX3CR1$^{+/+}$ mice. Data are representative of more than three independent experiments. Error bars represent SEM. *, $p < 0.05$.

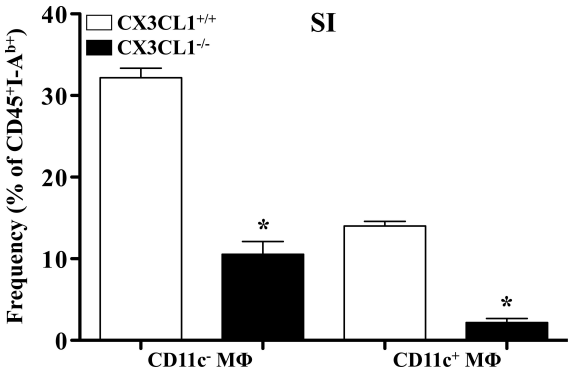


**Figure S3. CX3CL1-deficient mice have a specific reduction in LP MΦ**
Percentage of $CD45^+$ MHC-$II^+$ MΦ in the small (SI) intestine of $CX3CL1^{-/-}$ or $CX3CL1^{+/+}$ mice. Data are representative of two independent experiments. Error bars represent SEM. *, $p < 0.05$.

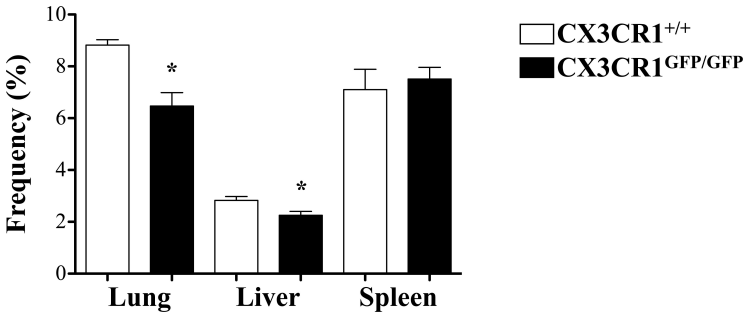


**Figure S4. CX3CR1-deficient mice have a reduction in lung and liver MΦ**
Percentage of $CD45^+$ $MHC\text{-}II^+$ MΦ in the lung, liver, and spleen of $CX3CR1^{GFP/GFP}$ or $CX3CR1^{+/+}$ mice. Data are representative of two independent experiments. Error bars represent SEM. *, $p < 0.05$.

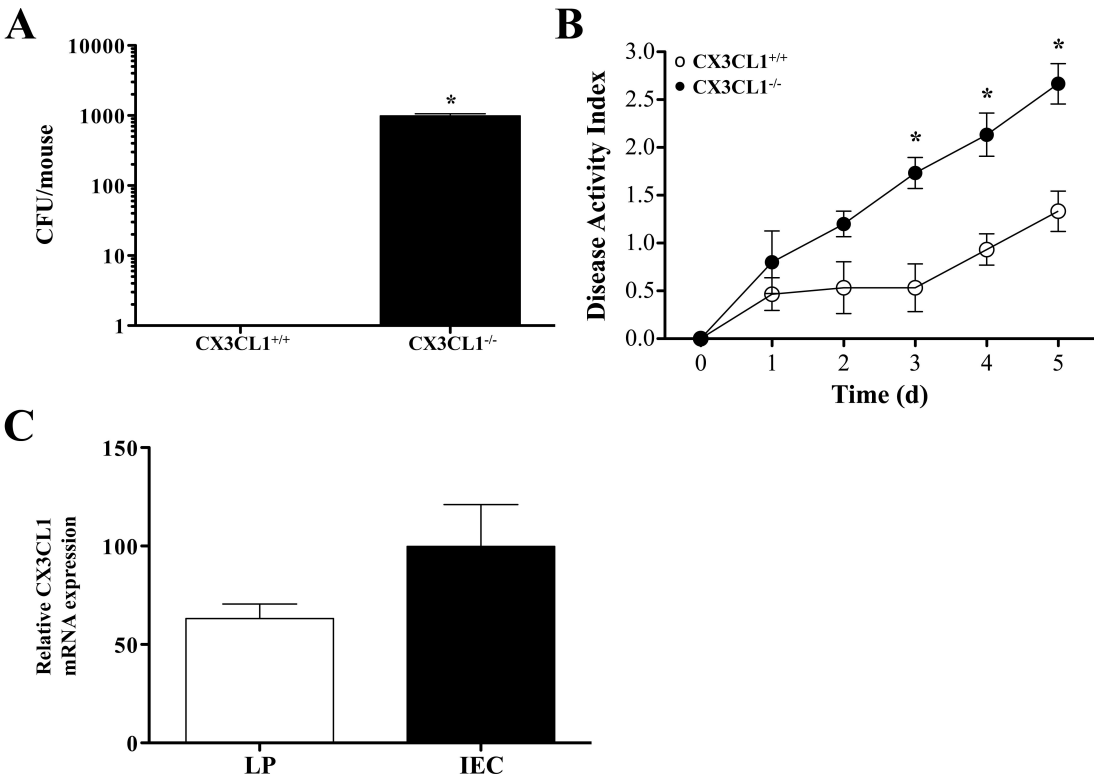


**Figure S5. CX3CL1-deficient mice exhibit enhanced bacterial translocation and colitis**
A) CFU per mouse in the mLN of $CX3CL1^{-/-}$ and $CX3CL1^{+/+}$ mice. B) Severity of colitis in DSS-treated $CX3CL1^{-/-}$ or $CX3CL1^{+/+}$ mice as measured by stool consistency, presence of fecal blood and weight loss. C) qRT-PCR for CX3CL1 mRNA expression in isolated intestinal LP or IEC from $CX3CL1^{+/+}$ mice. Data are representative of two independent experiments. Error bars represent SEM. *, $p < 0.05$.

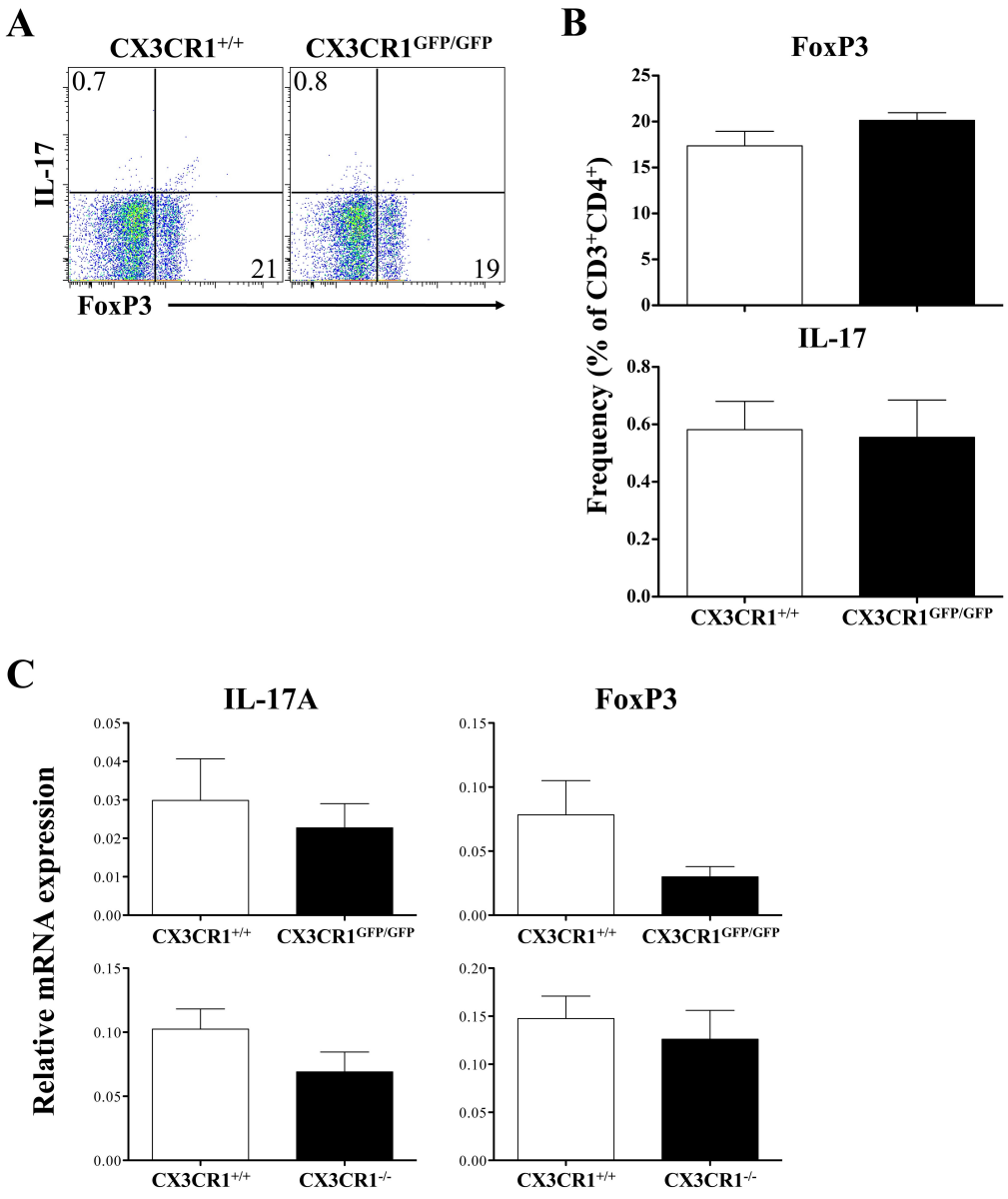


**Figure S6. CX3CR1 deficiency does not affect $T_H17$ and Foxp3$^+$ Treg cells during the steady-state**

A) Flow cytometry of intracellular cytokine production by colonic CD4 T cells from CX3CR1$^{GFP/GFP}$ or CX3CR1$^{+/+}$ mice. Numbers in outlined areas indicate percentage cells in gate. B) Percentage of IL-17A$^+$ and Foxp3$^+$ cells in the large intestine of CX3CR1$^{GFP/GFP}$ or CX3CR1$^{+/+}$ mice. C) qRT-PCR for IL-17 and Foxp3 mRNA expression in isolated intestinal LP from CX3CR1$^{+/+}$ and CX3CR1$^{GFP/GFP}$ mice. Data are representative of two (C) or three (A,B) independent experiments. Error bars represent SEM. *, $p < 0.05$.

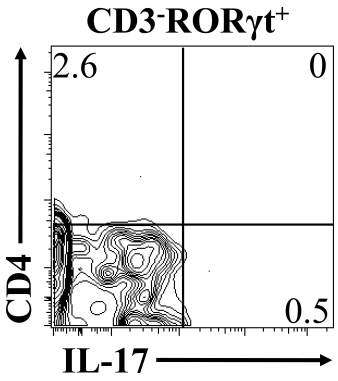


**Figure S7. IL-17 is not produced by innate lymphoid cells in CX3CR1-deficient mice**
Flow cytometry of intracellular cytokine production by colonic innate lymphoid cells from CX3CR1$^{GFP/GFP}$ mice. Numbers in outlined areas indicate percentage cells in gate. Data are representative of three independent experiments.

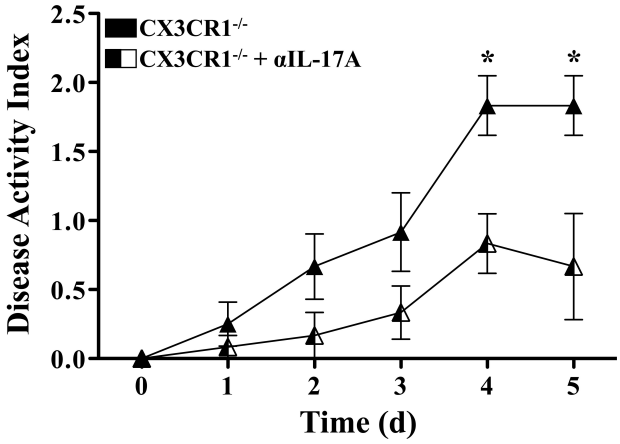


**Figure S8. Enhanced IL-17 responses contribute to colitis in CX3CR1-deficient mice**
Severity of colitis in DSS-treated CX3CR1$^{-/-}$ or CX3CR1$^{+/+}$ mice, in the presence of neutralizing IL-17A antibody or isotype control. Data are representative of two independent experiments. *, $p < 0.05$.

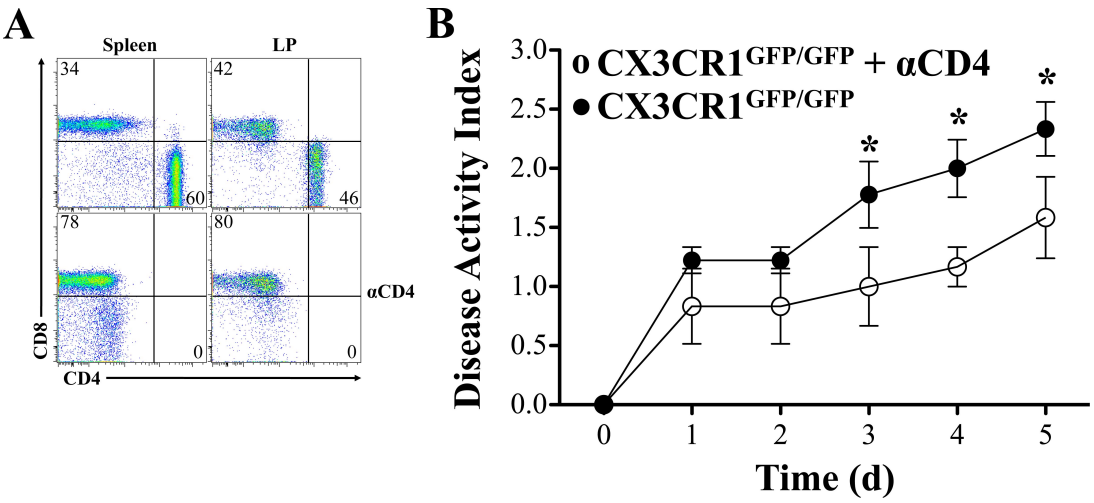


**Figure S9. CD4-produced IL-17 contributes to colitis in CX3CR1-deficient mice**
A) Flow cytometry of *in vivo* CD4 depletion in the spleen and LP from CX3CR1$^{GFP/GFP}$ mice. Numbers in outlined areas indicate percentage cells in gate. Percentage of IL-17A$^{+}$ and FoxP3$^{+}$ cells in the large intestine of CX3CR1$^{GFP/GFP}$ or CX3CR1$^{+/+}$ mice. B) Severity of colitis in DSS-treated CX3CR1$^{GFP/GFP}$ mice, after CD4 depletion. Data are representative of one experiment with five mice per group. Error bars represent SEM. *, $p < 0.05$.

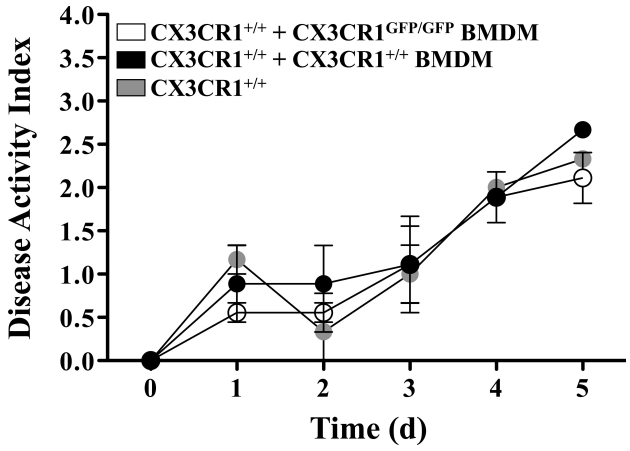


**Figure S10. BMDM transfer does not ameliorate colitis in CX3CR1$^{+/+}$ mice**
Severity of colitis in DSS-treated CX3CR1$^{+/+}$ mice, after adoptive transfer of CX3CR1$^{GFP/GFP}$ or CX3CR1$^{+/+}$ BMDM. Data are representative of one experiment with three mice per group. Error bars represent SEM. *, $p < 0.05$.

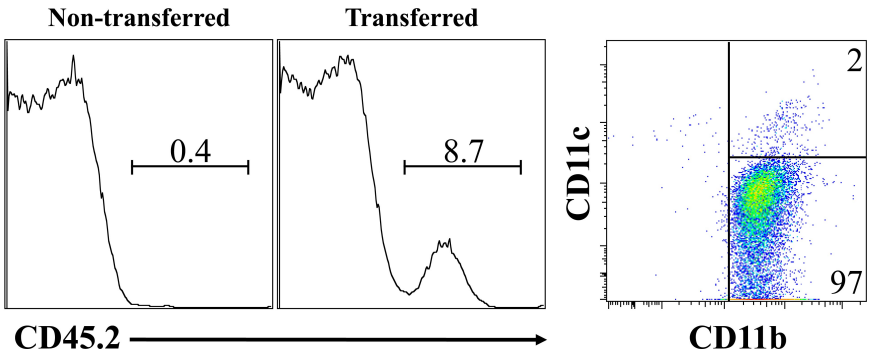


**Figure S11. Bone marrow-derived macrophages migrate to the intestine**
Percentage of transferred BMDM, defined as CD45.2$^{+}$ CD11b$^{+}$ CD11c$^{-}$, in the LI LP of CD45.1 mice at day 5 post-adoptive transfer. Cells were pre-gated as MHC-II$^{+}$. Data are representative of one experiment with four mice.