Figure S1. Antigen-specific T cell responses in mice with deletion of TNF in T cells and myeloid cells. A, **B**. Frequency of IFNγ- and IL-17A – producing CD4 T cells in WT, T-TNF KO, M-TNF KO and TNF KO splenocytes at 14th day after second immunization in the absence of type II collagen. Proliferation of CD4 T cells in WT, T-TNF KO, M-TNF KO and TNF KO splenocytes at 14th day after second immunization activated with type II collagen (40 mcg/ml) (**C**) or anti-CD3/anti-CD28 **D**. CFSE dilution was analysed 24 hours after stimulation. **E**. Cell proliferation in WT and TNF KO splenocytes measured by ^{3}H-thymidin incorporation at day 14 after 2nd immunization. Cells were activated with 10 mcg/ml of chicken type II collagen for 72 hours, ^{3}H-Thymidine was added for last 16 hours of incubation. Data are representative of two independent experiments.

Figure S2. The role of myeloid cell-derived TNF during collagen induced arthrtis. A. Soluble TNF levels produced by bone marrow derived macrophages (BMDM) generated from WT (tmTNFKI/TNF^{flox}×Mlys-Cre$^{wt/wt}$) and tm-M-TNF KI (tmTNFKI/TNF^{flox}×Mlys-Cre$^{Cre/wt}$) mice and sitmulated with LPS (100 ng/ml) for 4 hours. **B**. Mean fluorescence intensity of TNF produced by WT and tm-M-TNF KI BMDM stimulated with LPS (100 ng/ml) for 4 hours in the presence of Brefeldin A (5 mcg/ml) and stained intracellularly for TNF. **C.** Frequency of TNF producing cells in WT, T-TNF KO, M-TNF KO and TNF KO mice at at 14th day after second immunization. **D**. Expression of Ly6C and Gr1 on TNF-producing CD11b^{+} cells in WT, T-TNF KO, M-TNF KO and TNF KO mice at at 14th day after second immunization. Splenocytes from various mouse strains were activated with LPS (100 ng/ml) for 4 hours in the presence of Brefeldin A (5 mcg/ml) and stained intracellularly for TNF. **E**. YFP expression in blood monocytes (CD11b^{+}CD115^{+} cells) in ROSA26-STOP-YFP×Mlys-Cre mice. **F**. TNF mRNA expression levels in synovial tissue of

WT, M-TNF KO, T-TNF KO and TNF KO mice at 21st day after immunization.Data are representative of two independent experiments. *P<0.05, **P<0.01, ***P<0.001, as calculated by Students' *t*-test.

Figure S3. Analysis of infiltrating cells in the inflammed paws during CIA. Representative dot plots of embryonically derived joint macrophages (F4/80^{+}CD11b^{-}) (**A**), inflammatory monocytes (CD11b^{+}F4/80^{+}Gr1^{low}) and neutrophils (CD11b^{+}F4/80^{-} Gr1^{high}) (**B**), CD4 T cells (**C**) in arthritic WT, T-TNF KO and M-TNF KO mice and CII-immunized TNF KO mice at 14th day after second immunization. Data are representative of two independent experiments.

Figure S4. Analysis of T cell compartment in mice with cell-type specific TNF deletion during arthritis. A. Frequency of T regulatory T cells in spleens of WT, T-TNF KO, M-TNF KO and TNF KO mice at day 14 after second immunization. **B**. Mean fluorescent intensity of FOXP3 in Treg cells in spleens of WT, T-TNF KO, M-TNF KO and TNF KO mice at day 14 after second immunization. **C**. Incidence of arthritis in T-TNF KO mice treated with antibodies directed against TNFR2 (Clone: TR75-54.7; 100 mcg/mouse, i.p., twice per week) or IFNγ (Clone: XMG1.2; 100 mcg/mouse, i.p., twice per week). Frequency of inflammatory monocytes (CD11b^{+}Ly6C^{+}Gr1^{low}) (**D**) and IL-12p40 producing DCs (CD11c^{+}MHCII^{+}) (**E**) in mice with conditional ablation of TNF during arthritis (day 6 after immunization). **E**. Data are representative of two independent experiments. *P<0.05, **P<0.01, ***P<0.001, as calculated by Students' *t*-test.