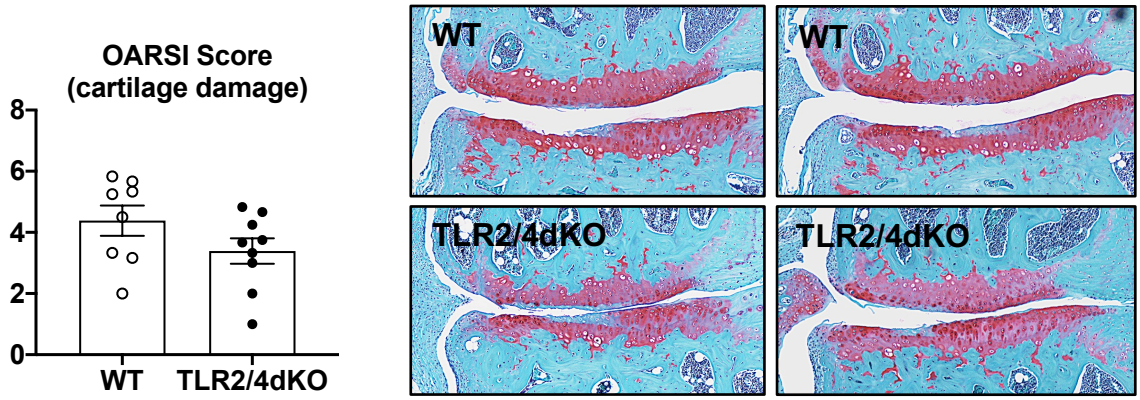
Supplemental Figure

TLR2 and TLR4 deficiency did not significantly impact on the severity of cartilage degradation in a mouse OA model



All mice were housed in cages with access to food and water with a 12-h dark/12-h light cycle under pathogen-free condition, in compliance with an institutionally reviewed and approved protocol by VA San Diego IACUC. Male mice of TLR2/4dKO and congenic WT mice at 12 weeks of age were subjected to medial meniscectomy surgery on the right knees and sham surgery on the left knees. Eight weeks after surgery, mouse knee joints were collected, fixed, embedded in paraffin and coronally sectioned. For each knee joint, 10–12 slides at ~75 μm intervals were stained with safranin-O and fast green for histologic scoring of the entire articular surface (both medial and lateral femoral and tibial cartilage surface), using the OARSI grading system.

As shown in the figure, the mean OARSI scores for male WT (n=8) and TLR2/4dKO (n=8) mice were 4.38 and 3.69, respectively. There was no significant statistical difference between these 2 groups (p=0.26, student *t-test*), despite that the mean score for TLR2/4dKO mice was lower. The representative images of medial compartment of knee sections showed cartilage degradation in both WT and TLR2/4dKO mice, evidenced by loss of safranin-O staining, fibrillations and vertical clefts with some loss of cartilage. This result suggested that TLR2/4dKO deficiency did not significantly impact on severity cartilage damage in a mechanical injury-induced mouse OA model.