

## **Supplementary Figure 1.**

Gene expression changes contralateral joints compared to age matched wildtype controls. We compared 1 day contralateral joints to age matched (mice at 16 weeks of age + 1 day) uninjured controls (C57Bl6) and found that several genes up/down regulated in injured joints in response to injury were also up/down regulated contralateral joints compared to WT matched age controls. However, by 1 week post injury the expression of the majority of these genes reverted back to WT control levels. Heatmap shows a set of aenes differentially expressed contralateral between day (uninjured\_1D) and age matched WT controls (WT\_1D). For majority of these genes 1 week contralateral (uninjured 1W) had very similar expression as the WT controls. This suggests that at least at early time points OA related genes have similar expression very contralateral and age matched controls, even though some of these genes show a differential expression immediately post injury.