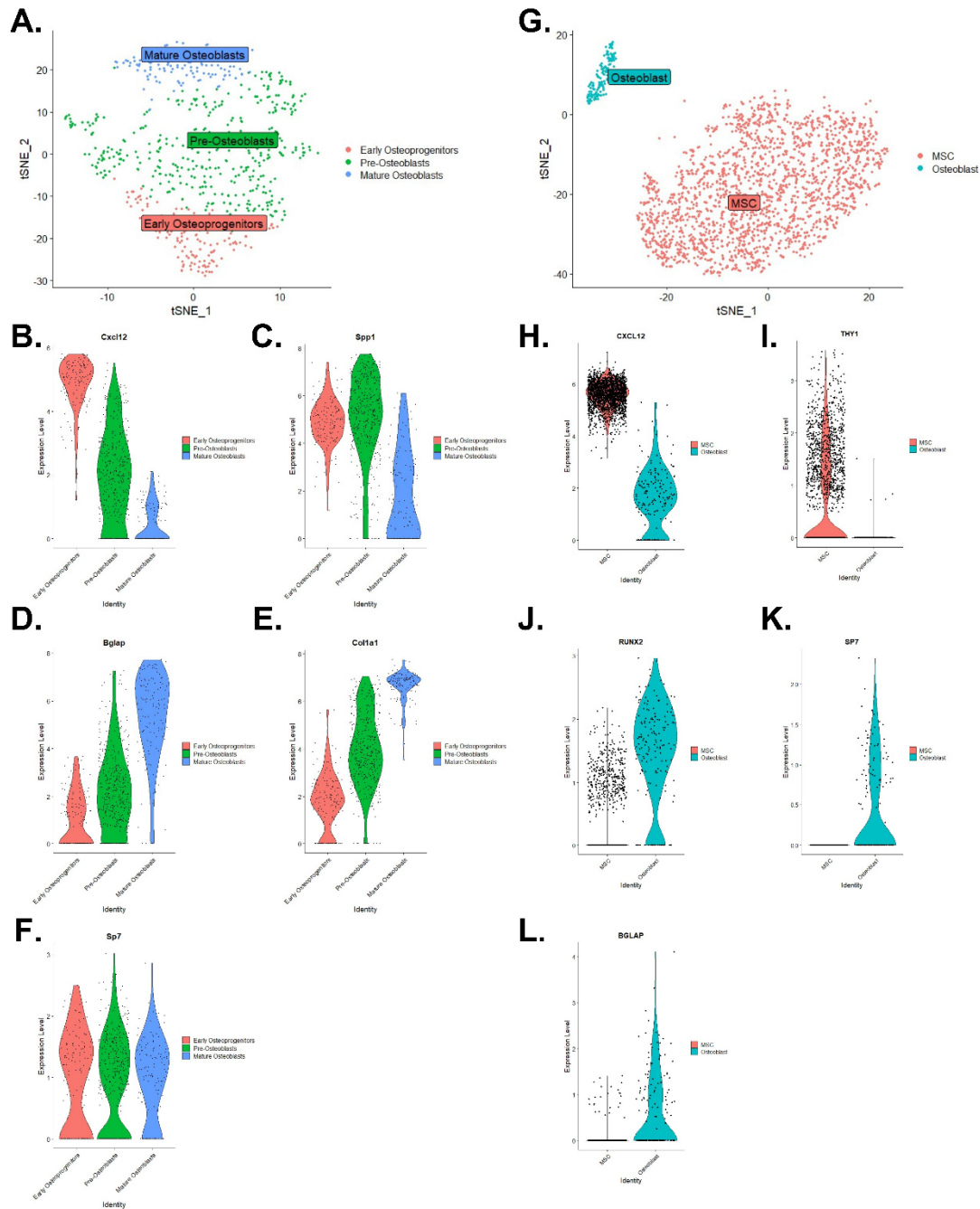


GSE128423 - Mouse

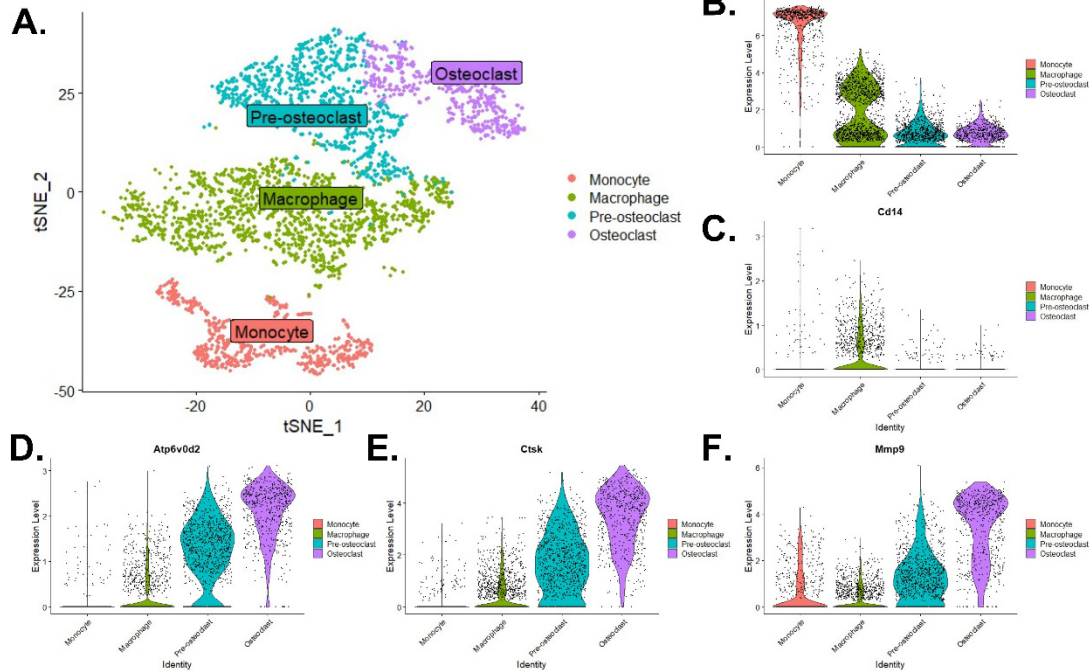
GSE147287 - Human



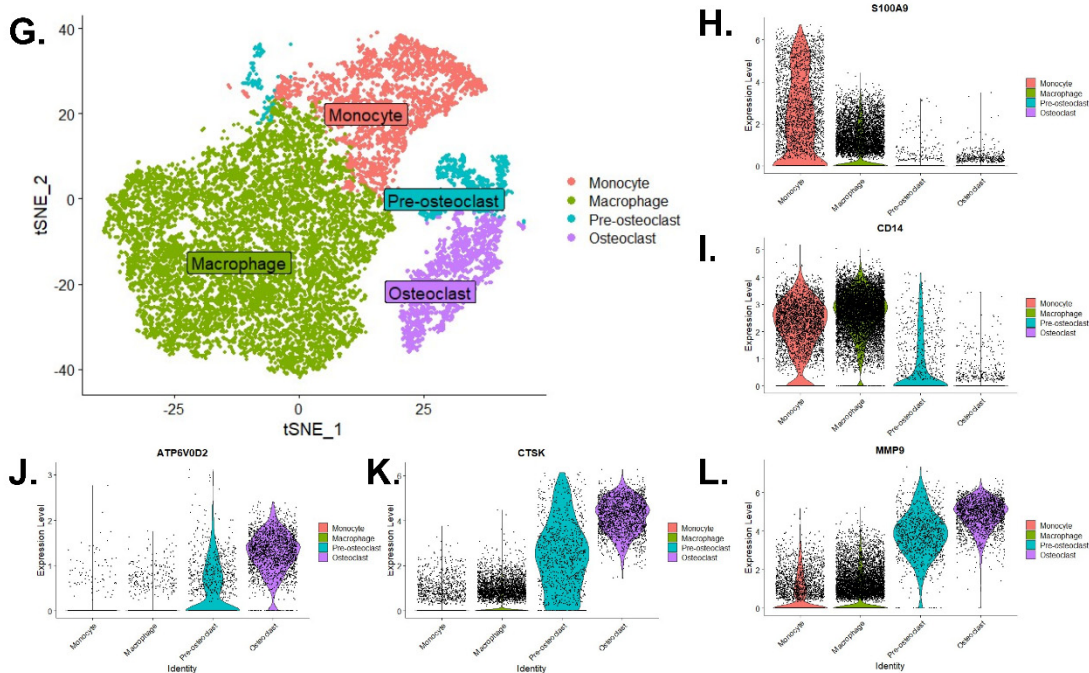
Supplementary Figure S1: Clustering of Osteoblast subsets.

(A-F) Publicly available single cell sequencing dataset GSE128423 (Mouse) was analysed for osteoblasts and subsequently clustered into three subgroups. (A) Dotplot of clustered Early Osteoprogenitors, Pre-Osteoblasts and Mature Osteoblasts. (B-F) Violin plots showing gene expression of *Cxcl12* (B), *Spp1* (C), *Bglap* (D), *Col1a1* (E) and *Sp7* (F) in each of the subgroups. (G-L) GSE14787 (Human) publicly available dataset was clustered for stromal type cells and further split into mesenchymal stem cells and osteoblasts. (G) Dotplot of clustered MSCs and Osteoblasts. (H-L) Violin plots showing gene expression of *CXCL12* (H), *THY1* (I), *RUNX2* (J), *SP7* (K) and *BGLAP* (L) in MSC and osteoblast subgroups.

GSE147174 - Mouse



GSE162454 - Human



Supplementary Figure S2: Clustering of Osteoclast subsets.

(A-F) Publicly available single cell sequencing dataset GSE147174 (Mouse) was analysed for cells involved in. (A) Dotplot of clustered Monocytes, Macrophages. Pre-Osteoclasts and Osteoclasts. (B-F) Violin plots showing gene expression of *S100a8* (B), *Cd14* (C), *Atp6v0d2* (D), *Ctsk* (E) and *Mmp9* (F) in each of the subgroups. (G-L) The publicly available dataset GSE162454 was clustered for osteoclast lineage cells and clustered into 4 subgroups. (G) Dotplot of clustered Monocytes, Macrophages. Pre-Osteoclasts and Osteoclasts. (H-L) Violin plots showing gene expression of *S100A8* (H), *CD14* (I), *ATP6V0D2* (J), *CTSK* (K) and *MMP9* (L) in each cell subset.