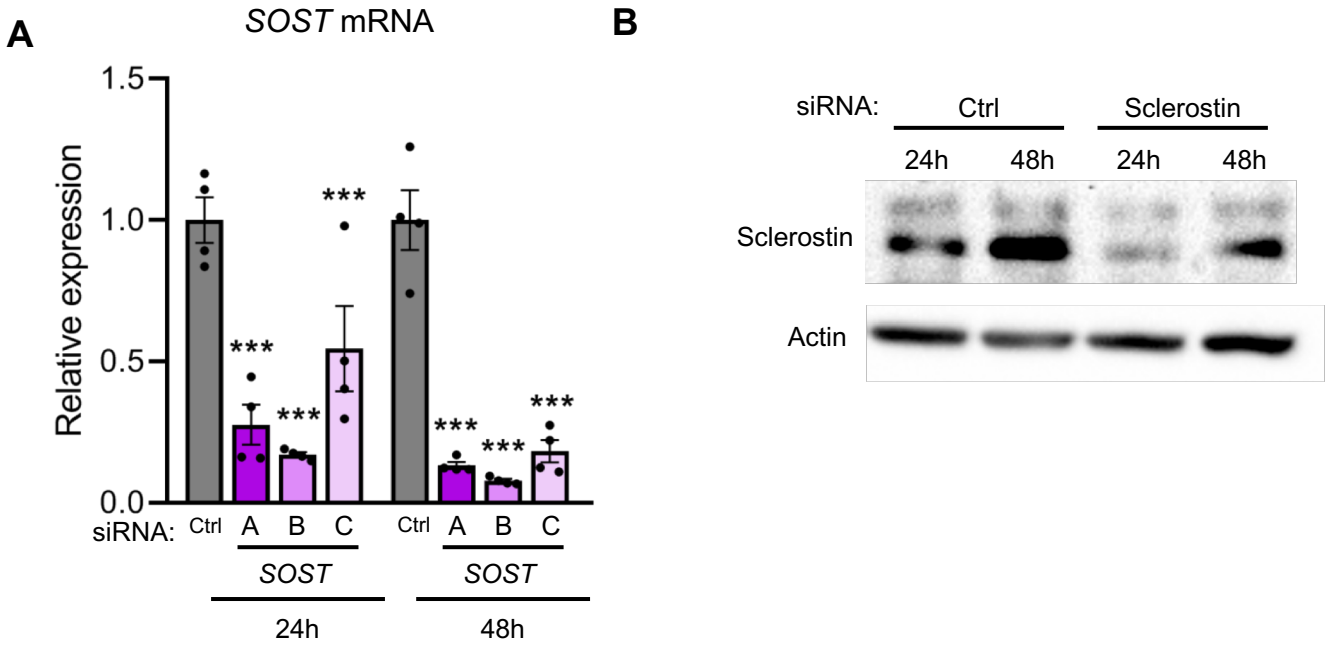
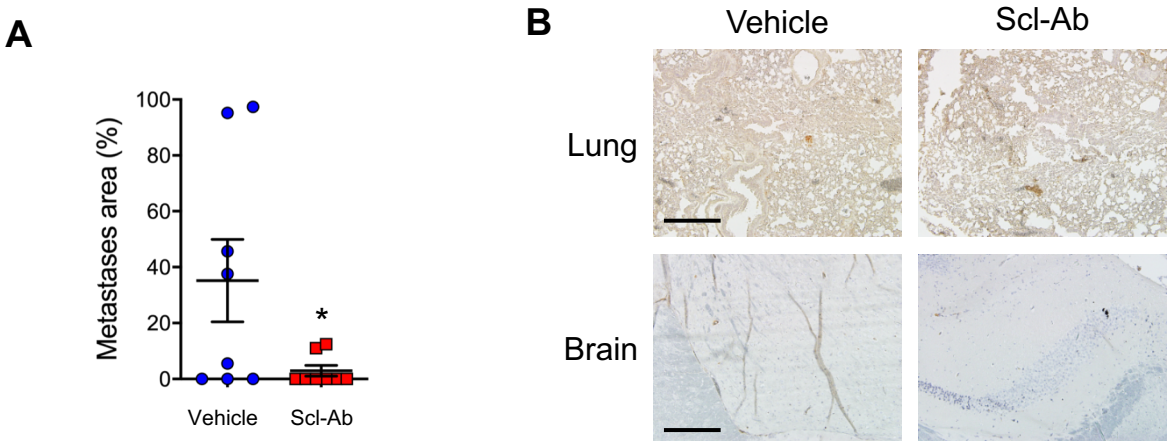
Supplemental Figure 1



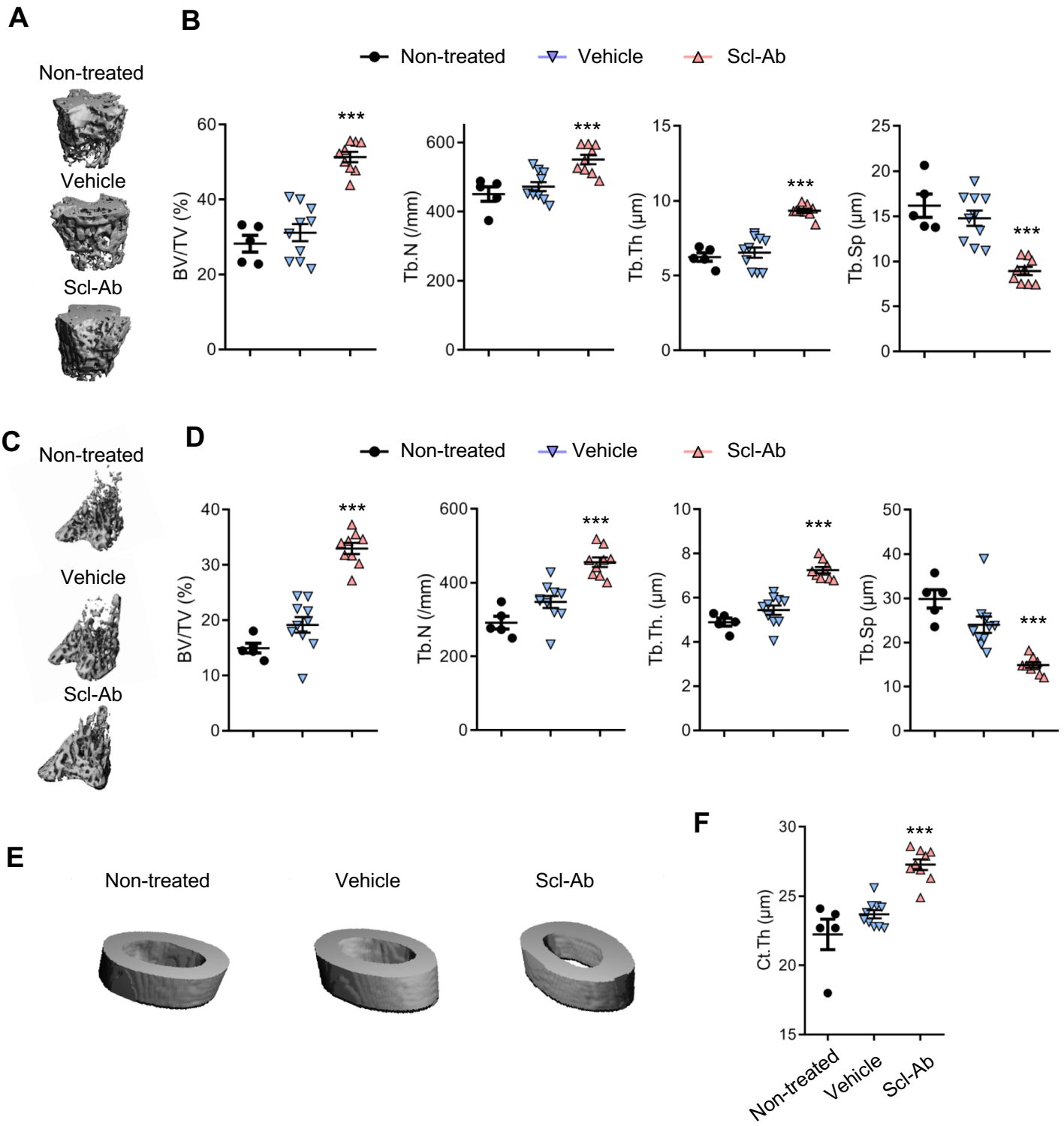
Supplemental Figure 1. (**A**) Sclerostin mRNA expression in MDA-MB-231 metastatic breast cancer cells transfected with scrambled siRNA (Ctrl) or 3 different siRNAs (A, B, C) against sclerostin was quantified by qRT-PCR 24 and 48 hours after transfection (n=4). (**B**) Immunoblot analysis of sclerostin protein expression 24 and 48 hours after transfection with Control (Ctrl) or sclerostin siRNA. Data are represented as mean ± SEM. Two groups were compared using 2-tailed Student´s t-test, ***p<0.001.

Supplemental Figure 2



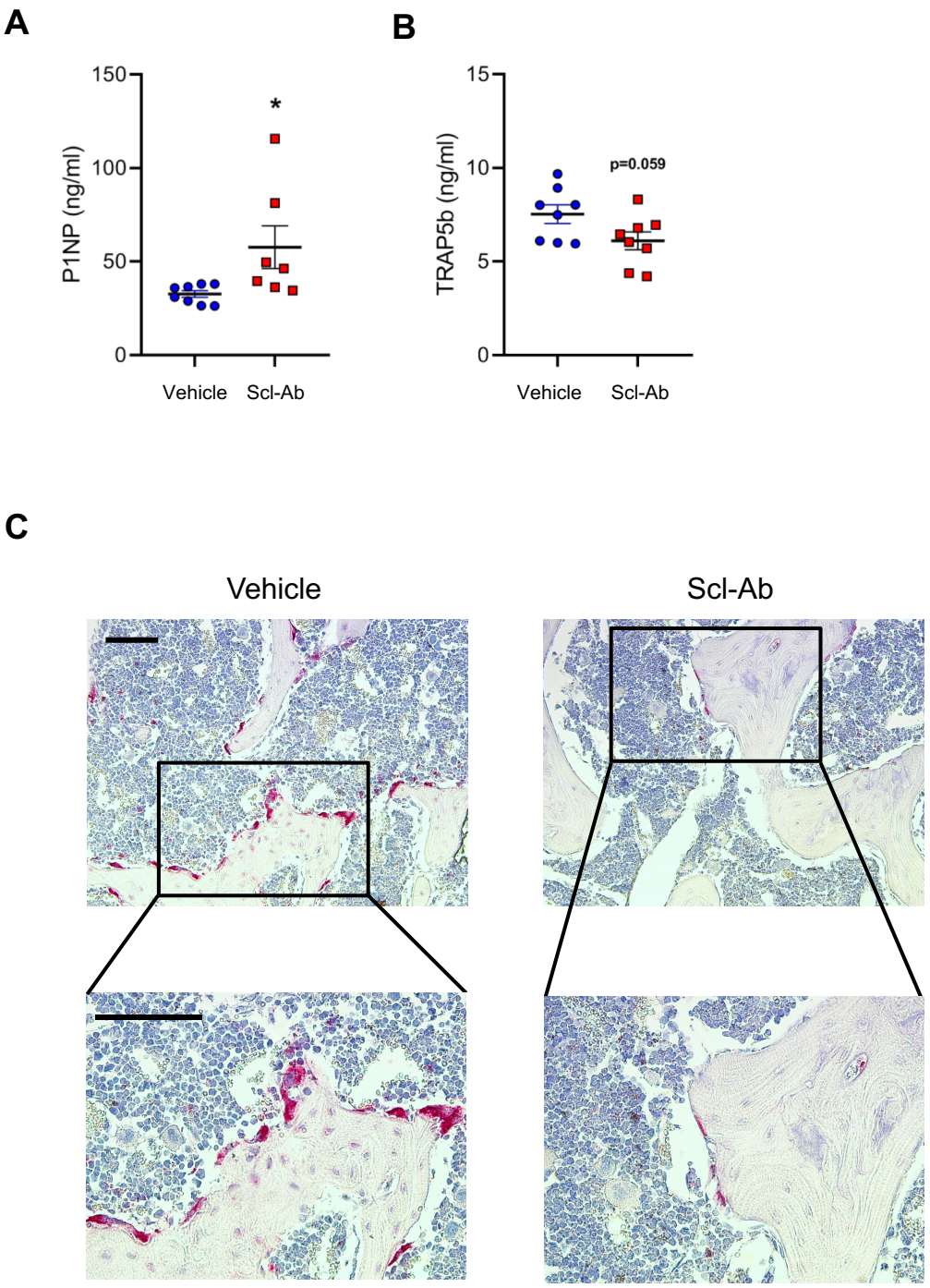
Supplemental Figure 2. (**A**) Quantification of the metastases area in the femur of cancer-bearing mice treated with vehicle (n=8) or Scl-Ab (n=8) using histological sections. (**B**) Immuno-histochemistry of the human leukocyte antigen (HLA) in the lung and in the brain of cancer-bearing mice treated with vehicle or Scl-Ab. Representative images are shown. Scale bars indicate 50 µm. Data are represented as mean ± SEM. Two groups were compared using 2-tailed Student´s t-test, *$p<0.05$.

Supplemental Figure 3



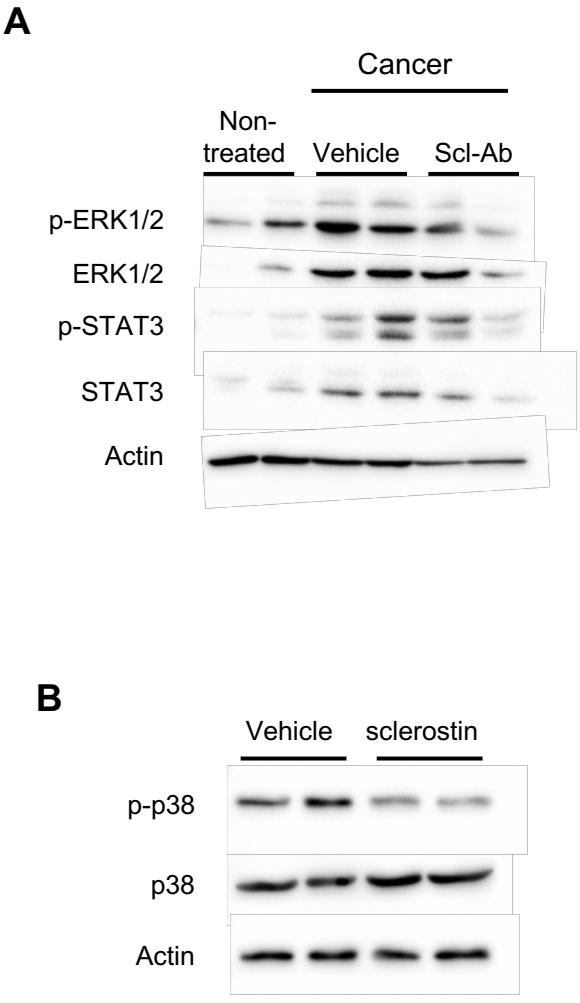
Supplemental Figure 3. (**A** and **B**) Micro-computed tomography (µCT) images (**A**) and analysis (**B**) of the distal femur of healthy mice without treatment (n=5) and with vehicle (n=10) or Scl-Ab (n=10) treatment. (**C** and **D**) µCT images (**C**) and analysis (**D**) of the proximal tibia of healthy mice without treatment and with vehicle or Scl-Ab treatment. (**E** and **F**) µCT images (**E**) and analysis (**F**) of the cortical thickness of the midshaft femur of healthy mice without treatment and with vehicle or Scl-Ab treatment. BV/TV, bone volume/total volume; Tb.N, trabecular number; Tb.Th, trabecular thickness; Tb.Sp, trabecular separation; Ct.Th, cortical thickness. Data are represented as mean ± SEM. Three groups were compared using ANOVA followed by Tukey's post-hoc analysis, ***p<0.001.

Supplemental Figure 4



Supplemental Figure 4. (**A**) P1NP serum concentration of cancer-bearing mice treated with vehicle (n=8) or Scl-Ab (n=8). (**B**) Serum Tartrate-resistant acid phosphatase (TRAP) 5b concentration in cancer-bearing mice treated with vehicle (n=8) or Scl-Ab (n=8). (**C**) TRAP staining of the distal femur of cancer-bearing mice treated with vehicle (n=8) or Scl-Ab (n=8). Scale bar indicates 50 µm. Data are represented as mean ± SEM. Two groups were compared using 2-tailed Student´s t-test, *p<0.05.

Supplemental Figure 5



Supplemental Figure 5. (**A**) Immunoblot analysis of phosphorylated ERK1/2 (p-ERK1/2), total ERK1/2, phosphorylated STAT3 (p-STAT3) and total STAT3 in the *gastrocnemius* muscle of healthy non-treated mice (n=5) and in cancer-bearing mice treated with vehicle (n=8) or Scl-Ab (n=8). Actin was used as loading control. Representative images are shown. (B) Immunoblot analysis of phosphorylated p38 (p-38) and total p38 in C2C12 myoblasts stimulated with vehicle (veh) or recombinant sclerostin. Actin was used as a loading control. Representative images of 4 independent experiments are shown.