

SUPPLEMENTARY FIGURE 1: Representative bioluminescence images in distal organs of $\mathbf{G}_{\mathbf{s}} \alpha^{\text {fl/fl }}$ and $\mathbf{G s} \alpha^{0 s x K O}$ mice bearing 4T1 tumors.
Bioluminescence (BLI) images in distal organs of $G_{S} \alpha^{\text {flfifl }}$ (left panels) and $G_{S} \alpha^{0 s \times k O}$ (right panels) mice bearing 4T1 tumors ( $n=10$ ) treated with either PBS or PTH. Representative images (A, B) lungs, (C, D) liver, and (E, F) spleen.


Supplementary Figure 2: Representative H\&E-stained images of tibia from of $\mathrm{G}_{\mathrm{s}} \alpha^{\mathrm{OsxKO}}$ mice with and without metastasis (20x magnification).

## D






F


SUPPLEMENTARY FIGURE 3: Body weights and tumor volume measurements in mice bearing Cont-4T1 and Pth1rKD-4T1 tumors (A) Experimental Design, ( $B$ and $C$ ) weekly body weight measurements, and (D) representative endpoint bioluminescence (BLI) images of Balb/c mice bearing either Cont-4T1 or Pth1rKD-4T1 tumors treated with either PBS or PTH. (E and F) Weekly tumor measurements. All values represent Mean $\pm$ SEM of $n=20$ for each group. Comparisons were made to PBS-treated controls in each group for statistical analyses.


SUPPLEMENTARY FIGURE 4: Representative bioluminescence images in distal organs of Balb/c mice bearing Cont- 4T1 or Pth1rKD-4T1 tumors
Bioluminescence (BLI) images of distal organs from Balb/c mice bearing Cont-4T1 (left panels) or Pth1rKD-4T1 (right panels) tumors ( $\mathrm{n}=$ 20 ) treated with either PBS or PTH. Representative images ( $A$ and $B$ ) lungs ( $C$ and $D$ ) liver and ( $E$ and $F$ ) spleen.

