

## **Supporting information**

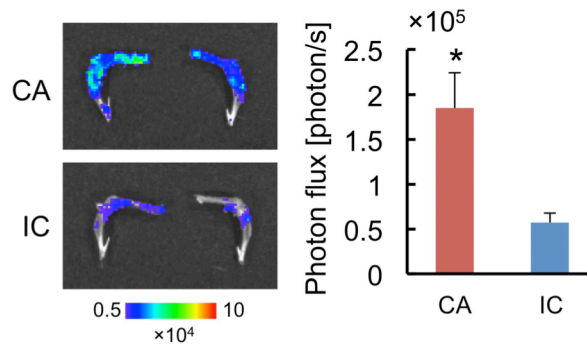
### **A reliable model of bone metastasis by injecting cancer cells through caudal arteries**

Kuchimaru et al.

**Supplementary Table 1**

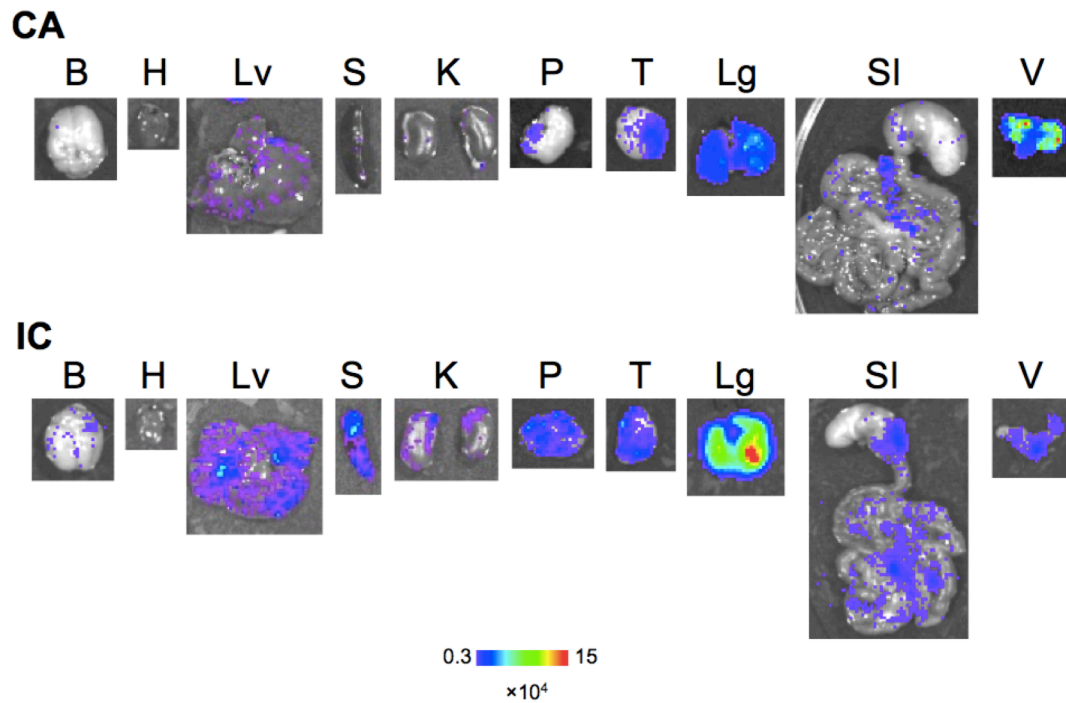
**Incident rate of acute death after injecting cancer cells in CA and IC models.**

	$2 \times 10^5$ cells	$1 \times 10^6$ cells
IC	0/6	7/7
CA	0/8	0/7



### Supplementary Figure 1

**Homing of cancer cells to the bone marrow.** Representative *ex vivo* BL images of hind limb bones (left) at 30 min after CA or IC injection are shown. BL intensities from hind limb bones (right) were quantitatively analyzed. n=8, \* $P < 0.05$ .

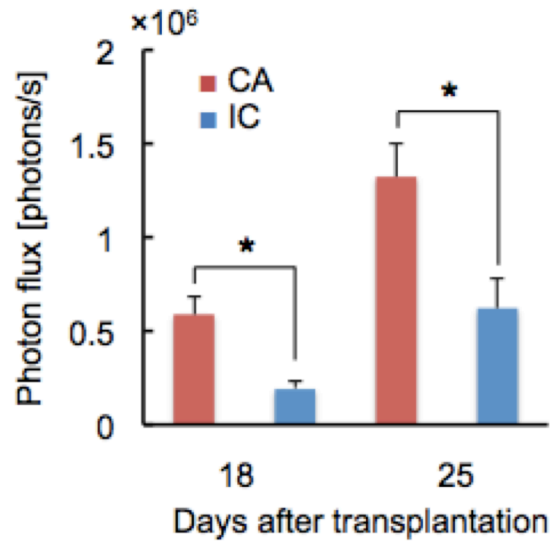


### Supplementary Figure 2

#### ***Ex vivo* images of organs shortly after cancer cell injection.**

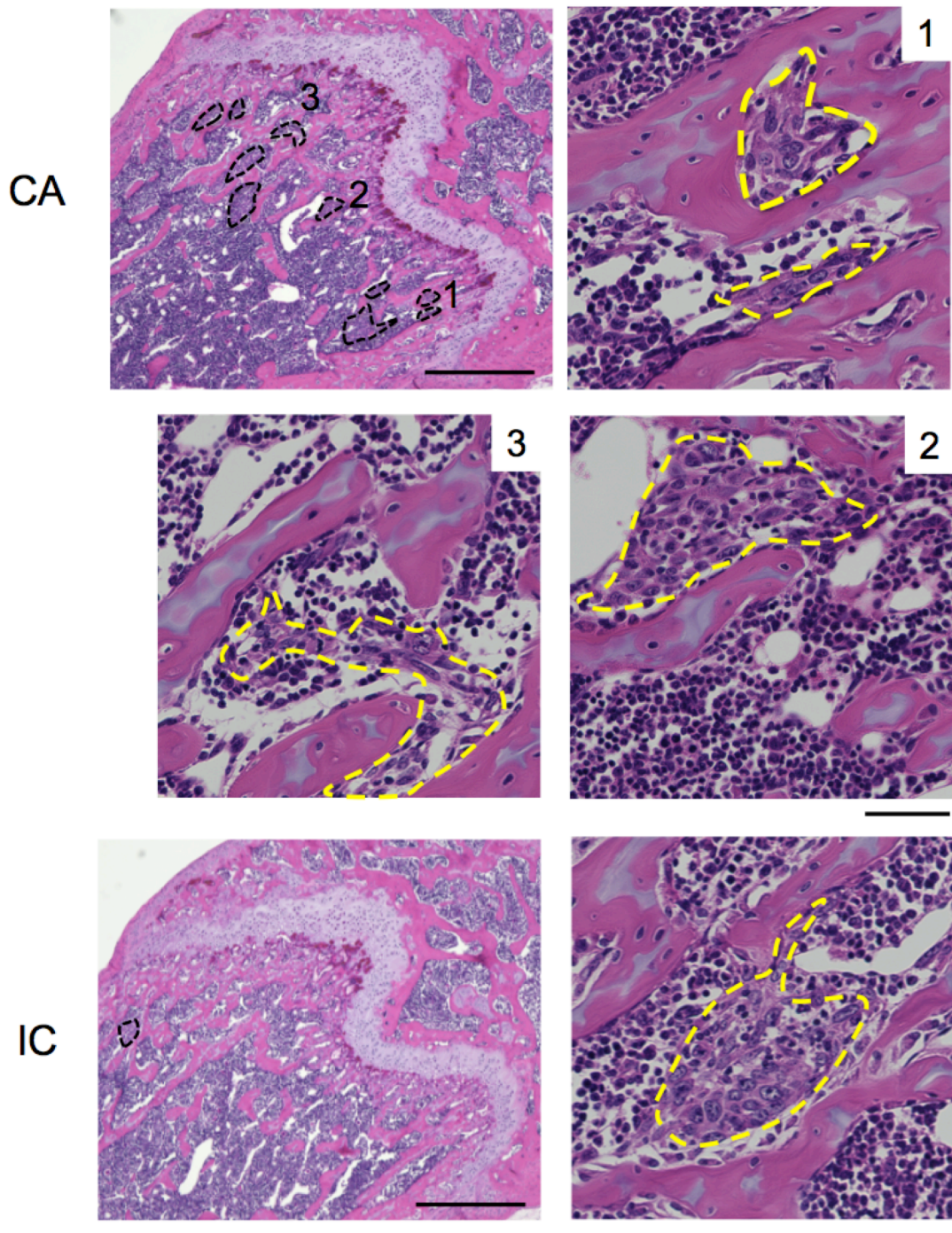
Representative *ex vivo* BL images of major organs at 30 min after CA or IC injection are shown. B: brain, H: heart, Lv: liver, S: spleen, K: kidney, P: pancreas, T: testis, Lg: lung, SI: stomach and intestine, V: vesicular gland.





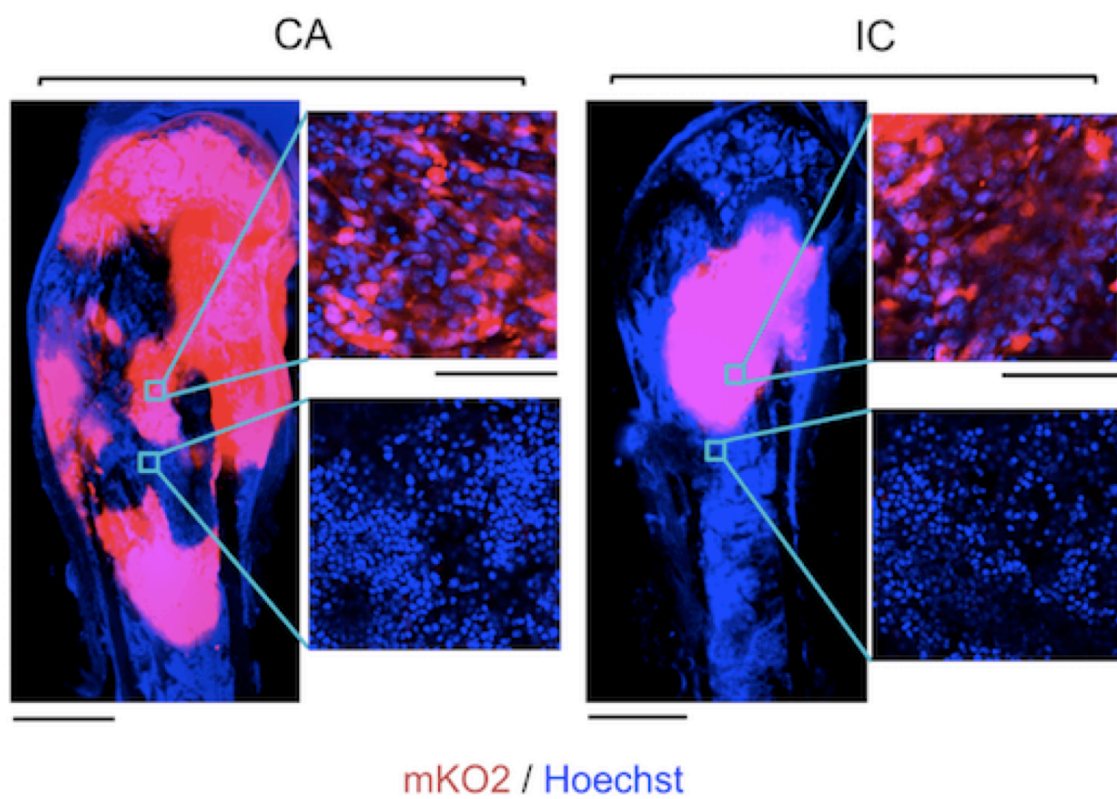
### Supplementary Figure 3

**Bioluminescence signal from hind limbs.** BL intensities from hind limbs were compared at 18 and 25 days after injection of LLC/luc. CA (n=12), IC (n=8) for day 18. CA (n=10), IC (n=8) for day 25. \* $P < 0.05$ .



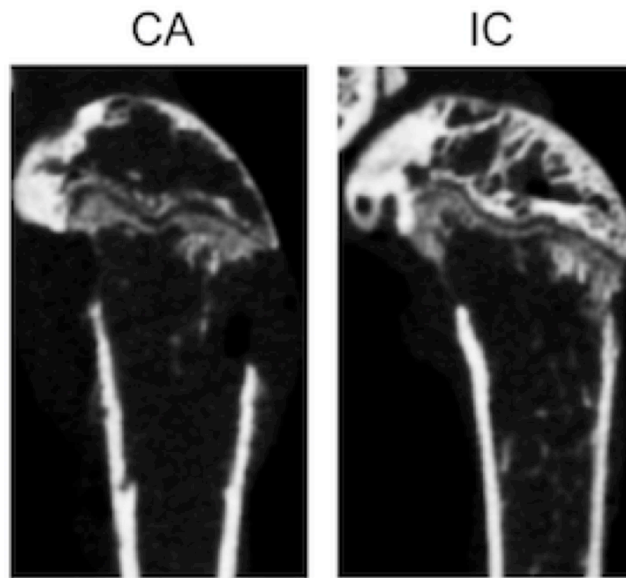
**Supplementary Figure 4**

**Histological analysis of bone metastatic lesions.** Representative HE images of bone metastatic lesions in hind limb bones at 7 days after injecting LLC/luc cells via CA or IC. Metastatic lesions were indicated with dashed lines in low-magnification images.



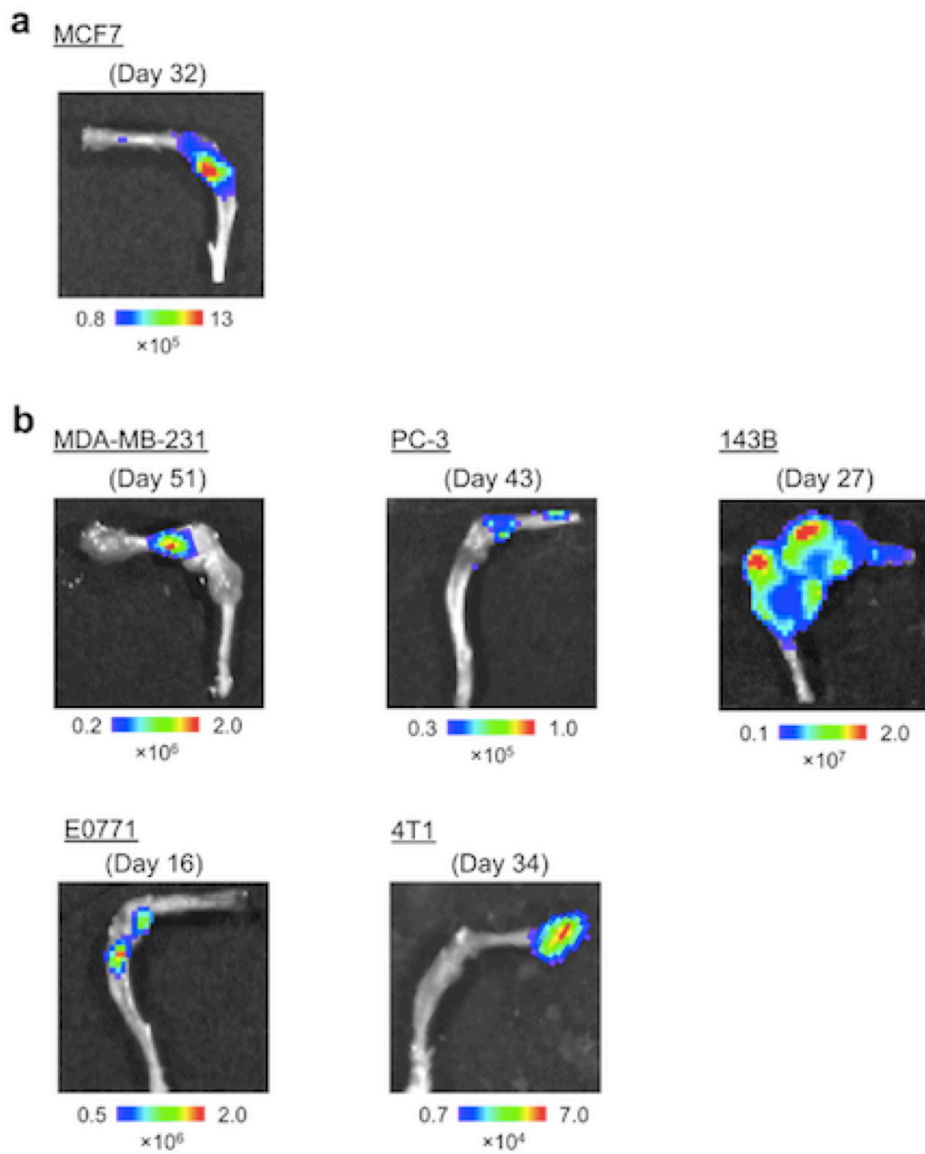
### Supplementary Figure 5

**Histological analysis of overt bone metastasis.** Representative confocal fluorescence images of magnified bone metastatic lesions of Fig.2c. Nuclei were stained as blue with Hoechst. Scale bars are 500  $\mu\text{m}$  and 100  $\mu\text{m}$  in low- and high-magnification images, respectively.



**Supplementary Figure 6**

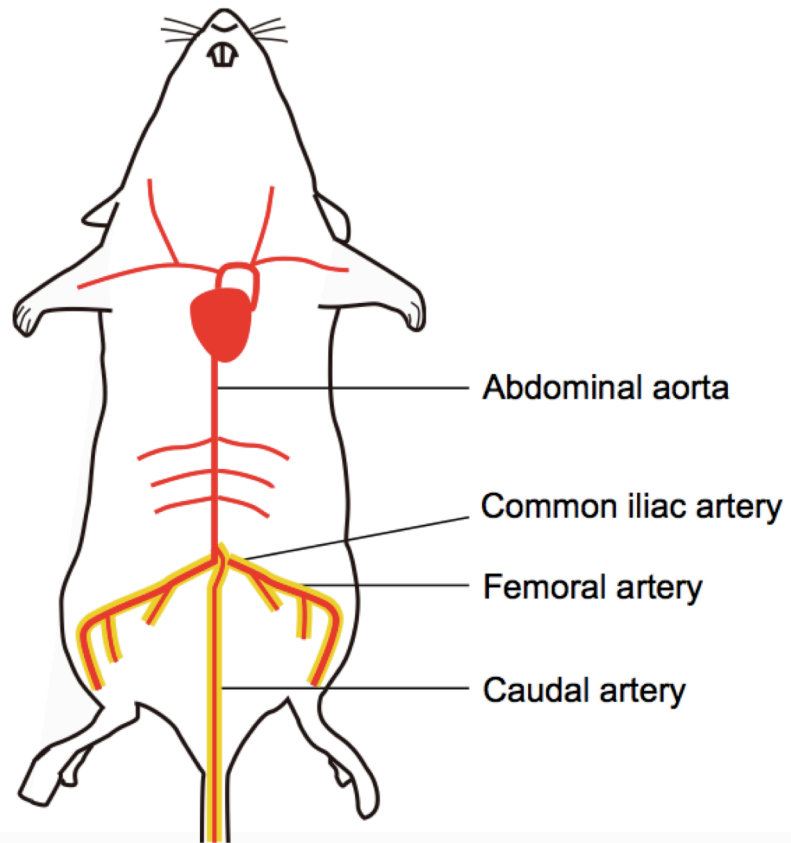
**X-ray micro CT images of femur with bone metastasis.** Representative X-ray micro CT images of sagittal plane of the femur at 14 days after injecting LLC/mKO2-Rluc8.6 cells via CA or IC route.



### Supplementary Figure 7

#### ***Ex vivo* images of hind limbs with bone metastasis after CA injection.**

(a) A representative *ex vivo* image of hind limbs at 32 days after CA injection of MCF7. (b) Representative *ex vivo* images of hind limbs at indicated days after CA injection are shown.



**Supplementary Figure 8**

**A schematic diagram of arterial circulatory system.** Representative arteries are shown in red and the ones involved in CA injection are highlighted in yellow.