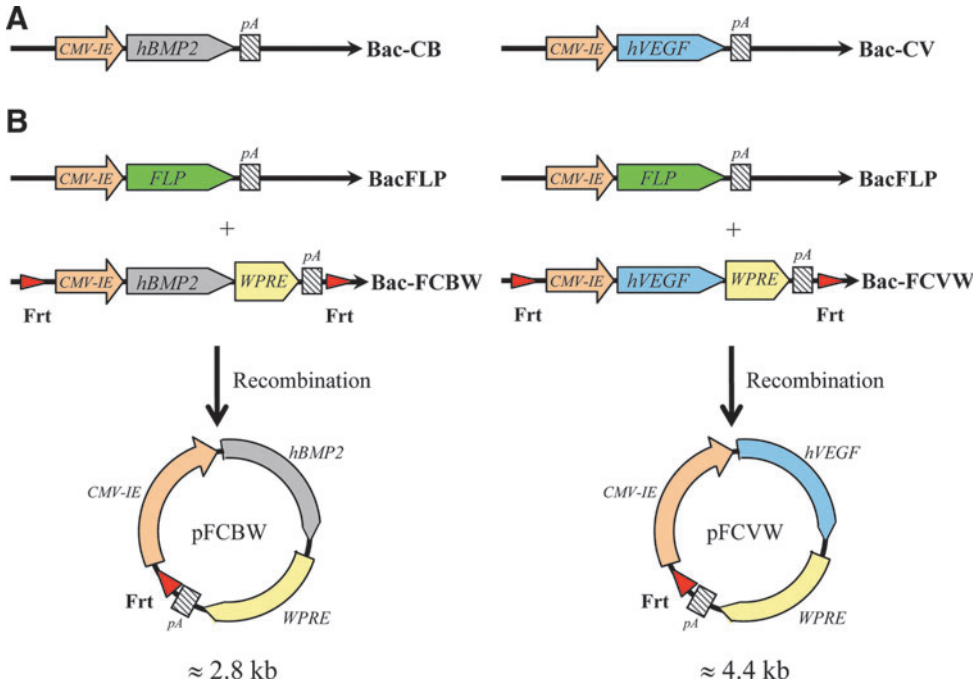
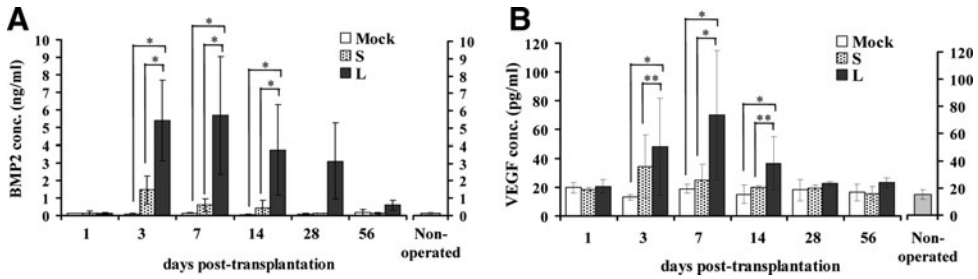
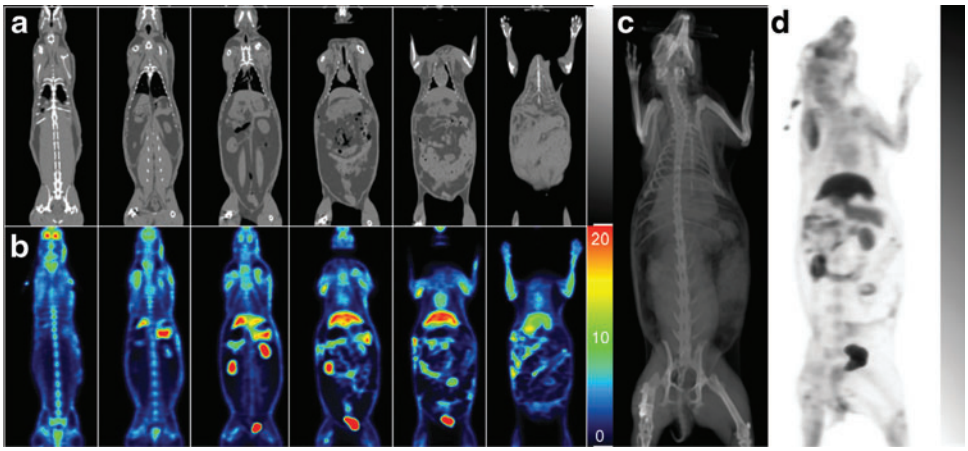
Supplementary Data



SUPPLEMENTARY FIG. S1. Baculovirus (BV) vectors used in this study. **(A)** BV vectors for transient expression. Bac-CB harbored the human *bmp2* gene driven by the cytomegalovirus immediate-early (CMV-IE) promoter. Bac-CV carried human *vegf*165 gene under the control of CMV-IE promoter. **(B)** Hybrid BV vectors for persistent transgene expression. BacFLP expressed FLP recombinase under the CMV-IE promoter. Bac-FCBW contained the Frt-flanking hBMP2 cassette and carried a woodchuck hepatitis virus post-transcriptional regulatory element (WPRE) sequence near the 3′ end. Bac-FCVW was similar to Bac-FCBW and expressed vascular endothelial growth factor (VEGF) in lieu of bone morphogenetic protein 2 (BMP2). After cotransduction of adipose-derived stem cells, the expressed FLP recombinase cleaved the Frt-flanking cassettes off the BV genome and catalyzed the formation of DNA minicircle (pFCBW or pFCVW).



SUPPLEMENTARY FIG. S2. Transgene expression *in vivo*. **(A)** BMP2 concentrations in the serum. **(B)** VEGF concentrations in the serum. The L ($n=6$), S ($n=5$), and Mock ($n=4$) groups were prepared as described in the text and transplanted into the critical-size (10 mm) femoral segmental bone defects in New Zealand White (NZW) rabbits. Serum samples were collected from the marginal ear vein and analyzed by ELISA kits for human BMP2 and VEGF, respectively. Before surgery, serum samples from nonoperated animals ($n=8$) were collected for comparison. $*p<0.05$, $**p>0.05$.



SUPPLEMENTARY FIG. S3. Tumor formation in #36 rabbit as assessed by positron emission tomography/computed tomography (PET/CT) scans at 8M. The experiments were performed as described in Figure 6.