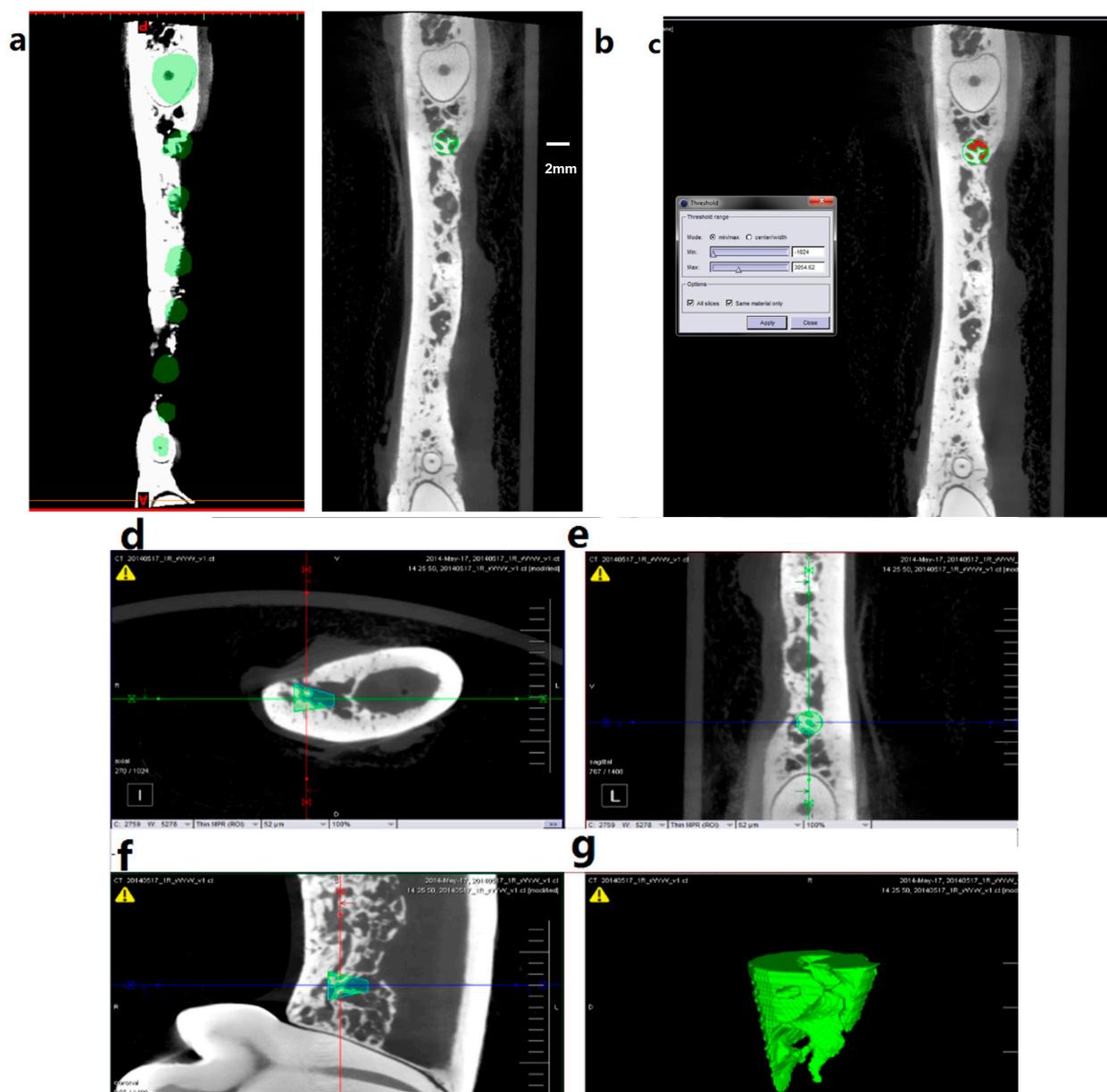


## Supplementary Information

**Table S1.** Expression level of Osteocalcin, BSP and Col-1 in the socket sections of the different groups

Target Protein	Control	Bio-Oss	BMP2	APN
Osteocalcin	1 ± 0.25	2.1 ± 0.69	5.8 ± 0.30	5.9 ± 0.27
BSP	1 ± 0.27	2.6 ± 0.32	4.0 ± 0.47	4.1 ± 0.11
Col-1	1 ± 0.27	1.9 ± 0.35	5.8 ± 0.98	5.6 ± 0.92



**Figure S1.** The choosing of ROI: (a) the transparency overlay of the superimposed 3D CBCT root model and  $\mu$ CT model to help locate (b) the position of ROI; (c) the threshold to determine trabecular bone and bone marrow, the threshold was 3054.62 for all specimen. The ROI was a root-shaped region with a 2 and 1 mm diameter on the upper and lower side of alveolar ridge respectively and with a height of 3 mm, shown in (d–f); (g) the 3D reconstruction of trabecular bone.