

Supplementary material

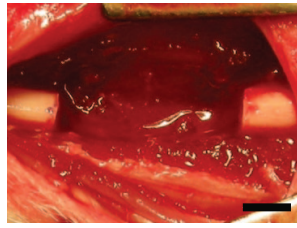


Fig. aa

Week 4

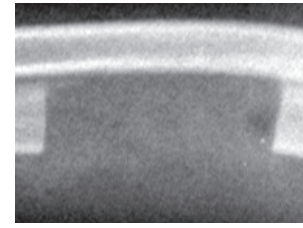


Fig. ab

Week 12

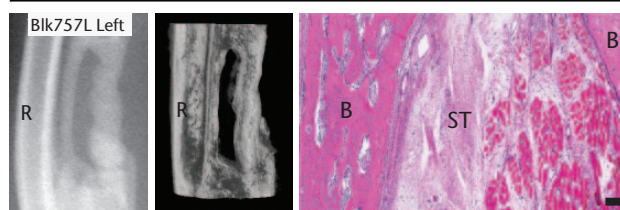


Fig. ac

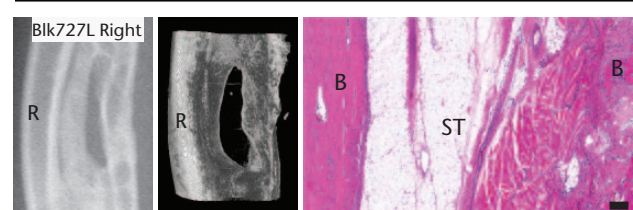


Fig. ad

Empty defects. Representative post-surgical a) digital image and b) radiograph showing the empty defect. Scale bar represents 3.5 mm. Representative radio-graph, 3D reconstructed μ -CT images, and haematoxylin and eosin (H&E)-stained sections taken from samples approximating mean bone volume scores of c) week 4 and d) week 12 post-implantation ulna defect samples. Scale bar represents 200 μ m. B, bone; ST, soft tissue.

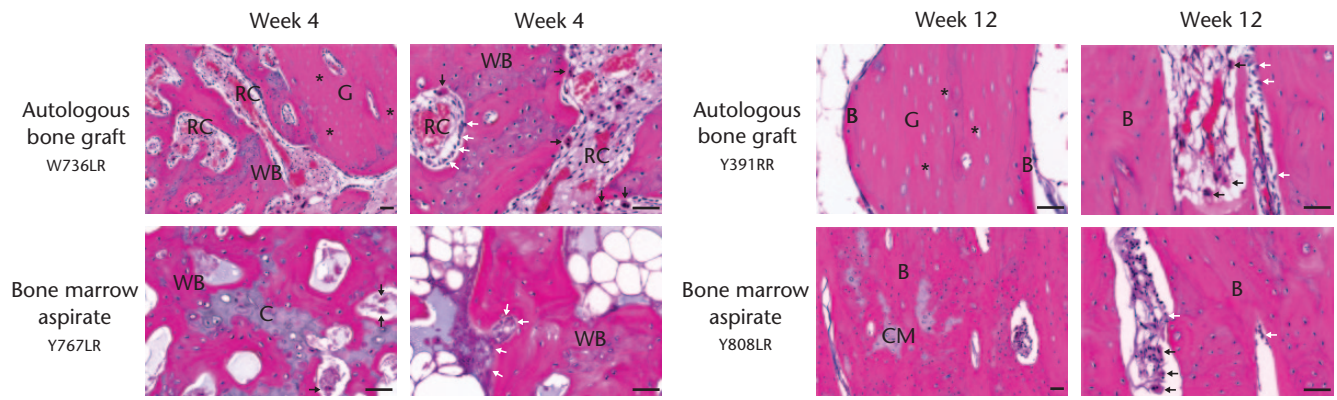


Fig. ba

Fig. bb

Haematoxylin and eosin (H&E)-stained histological sections at four and 12 weeks post-surgery. Representative sections of ulna defect samples approximating mean bone volume scores from μ -CT analyses showing various morphological features at a) week 4 and b) week 12 post-implantation. Asterisks indicate empty osteocytic lacunae. Black arrows indicate osteoclasts while white arrows indicate osteoblasts. Scale bar indicates 50 μ m. G, autologous graft; RC, remodelling cavities; WB, woven bone; B, bone; C, chondrocytes; CM, calcified matrix.

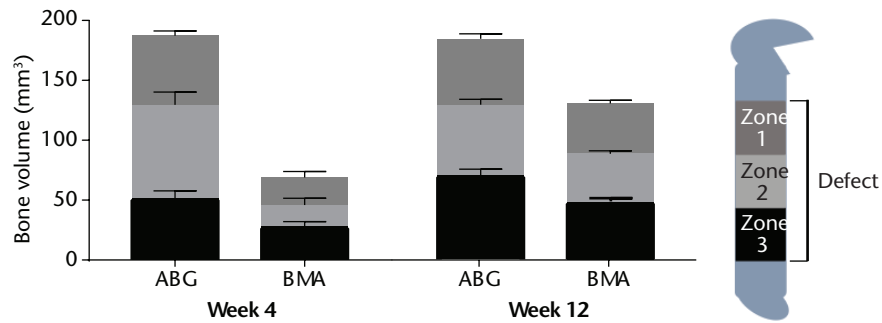


Fig. c

Quantification of bone volume in three equal segments of the ulna defects. Data are expressed as the mean (mm³) and standard error of the mean (SEM).

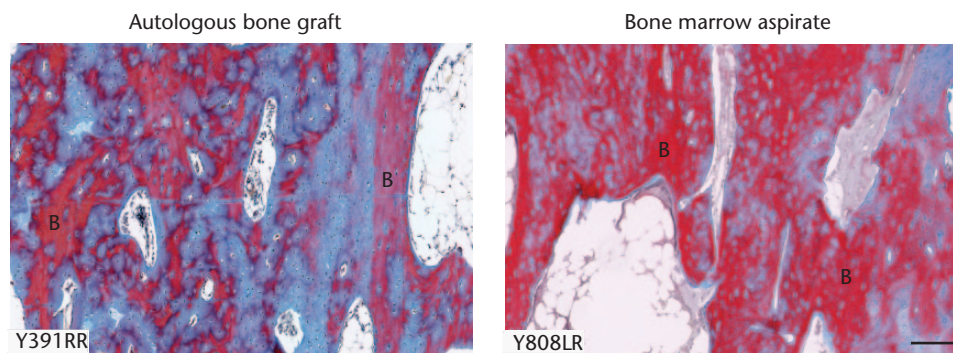


Fig. da

Fig. db

Modified ralis tetrachrome (RT)-stained histological sections at 12 weeks post-surgery. Representative modified RT-stained sections highlighting red-stained areas indicative of mineralizing bone within the treated defects. Samples were chosen from bone volume measurements approximating the means. Scale bar represents 200 μ m. B, bone.