Supporting Information

Age-related regeneration of osteochondral and tibial defects by a fibrin-based construct *in vivo*

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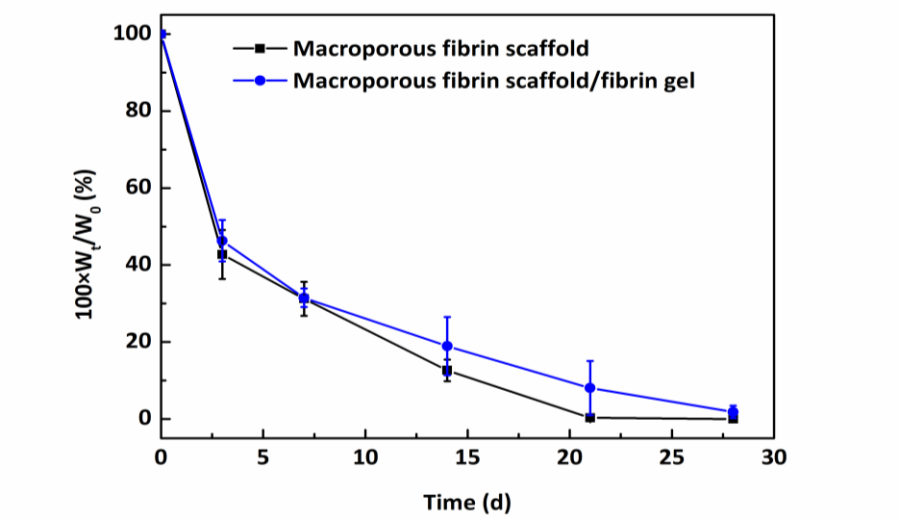

Fig. S1. Relative weight versus time of the macroporous fibrin scaffold and fibrin-based scaffold in 0.01 M PBS at 37 ^{o}C under sterilized condition (n=3).

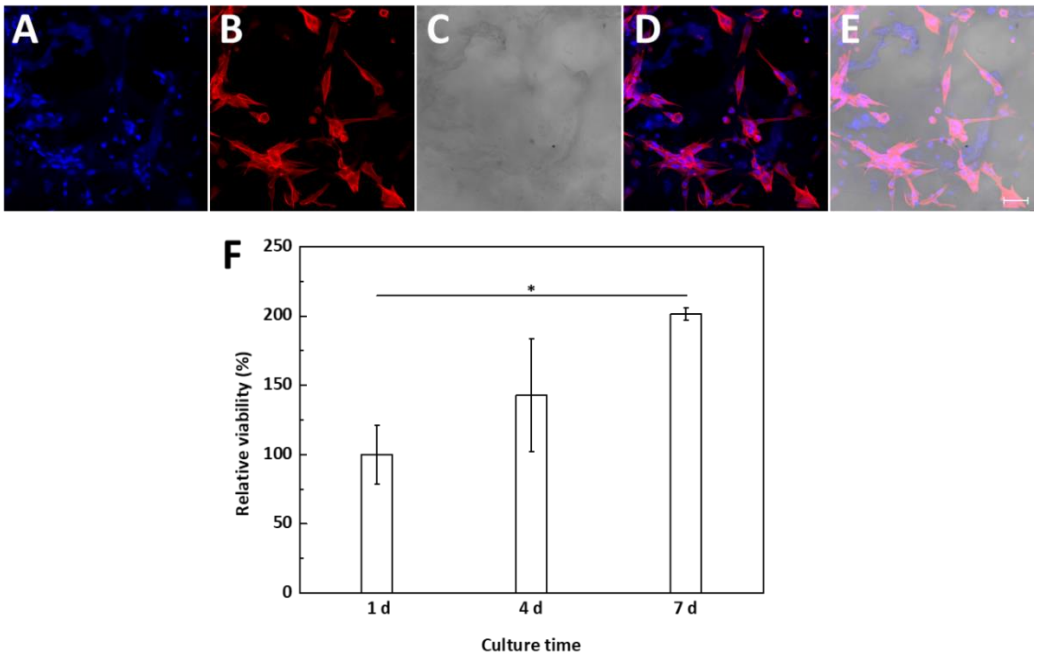

Fig. S2. (A-E) CLSM images of bone marrow-derived mesenchymal stem cells (BMSCs) within the fibrin-based scaffold being cultured for 24 h at 37 ^{o}C and 5% CO_2 atmosphere. (A) Nucleus stained by 2-(4-amidinophenyl)-6-indolecarbamidine dihydrochloride (4',6-diamidino-2-phenylindole) (DAPI, blue color), (B) cytoskeleton stained by rhodamine-labeled phalloidin (red color), (C) bright field, (D) merged image of A and B, and (E) merged image of (A-C). Scale bar: 50 μm. (F) Cytoviability assayed by MTT in the fibrin-based scaffold.

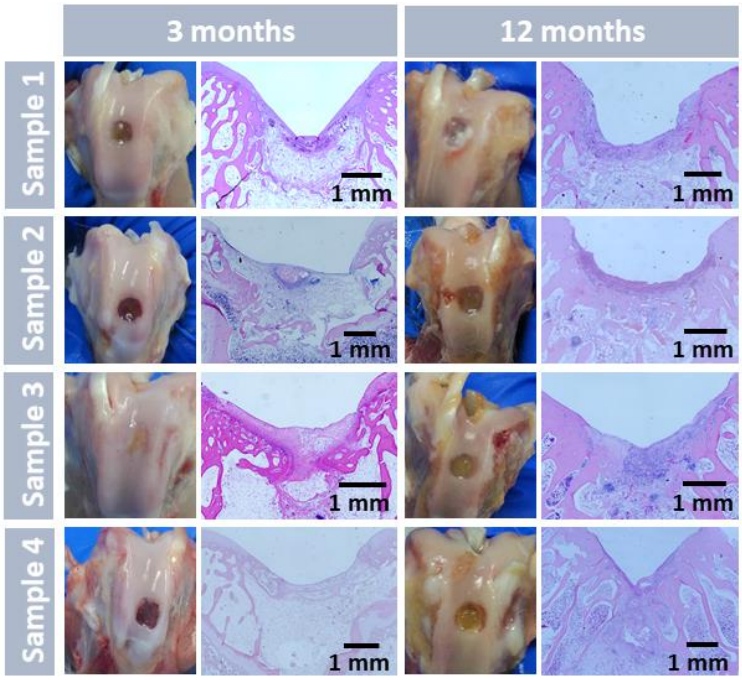

Fig. S3. Repair effects of osteochondral defects in young adult rabbits (3 months old) and aged adult rabbits (12 months old) at 12 weeks post-surgery evaluated by H&E staining.

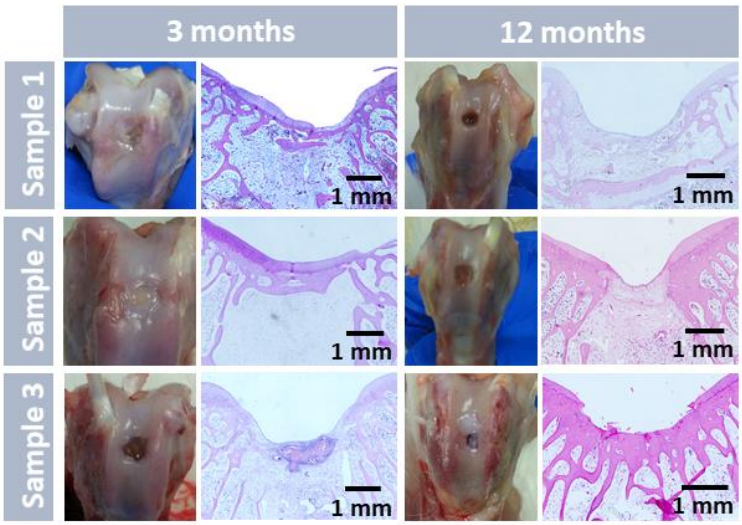

Fig. S4. Repair effects of osteochondral defects in young adult rabbits (3 months old) and aged adult rabbits (12 months old) at 18 weeks post-surgery evaluated by H&E staining.

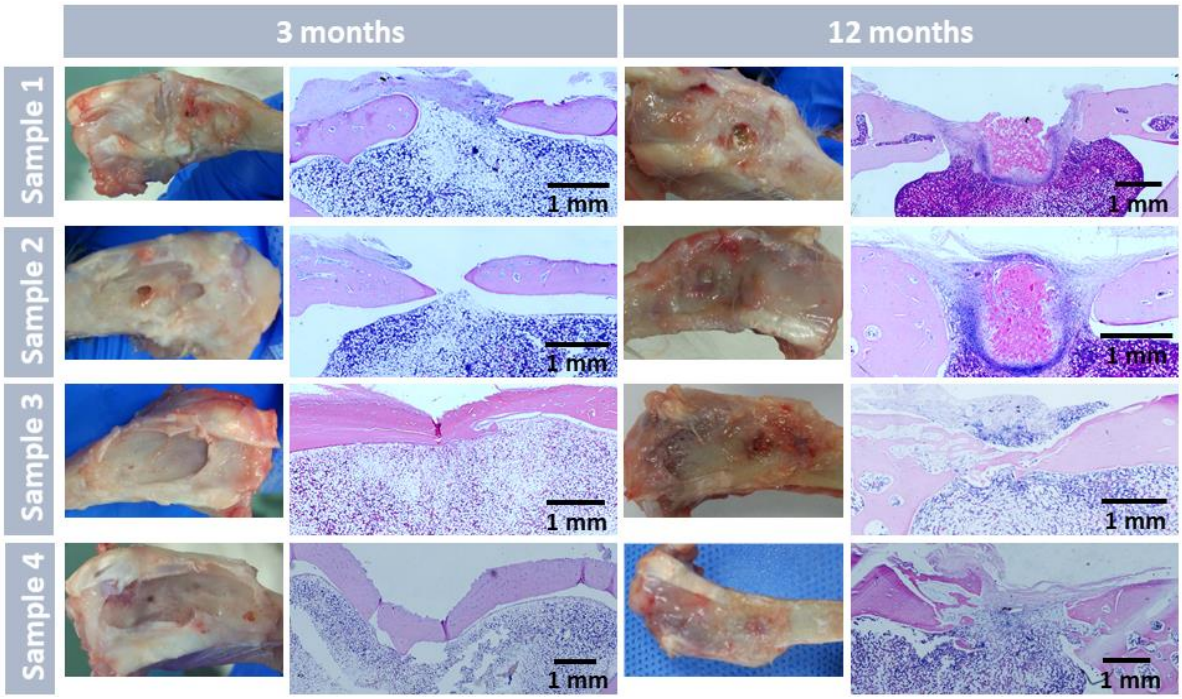

Fig. S5. Repair effects of tibial defects in young adult rabbits (3 months old) and aged adult rabbits (12 months old) at 12 weeks post-surgery evaluated by H&E staining.

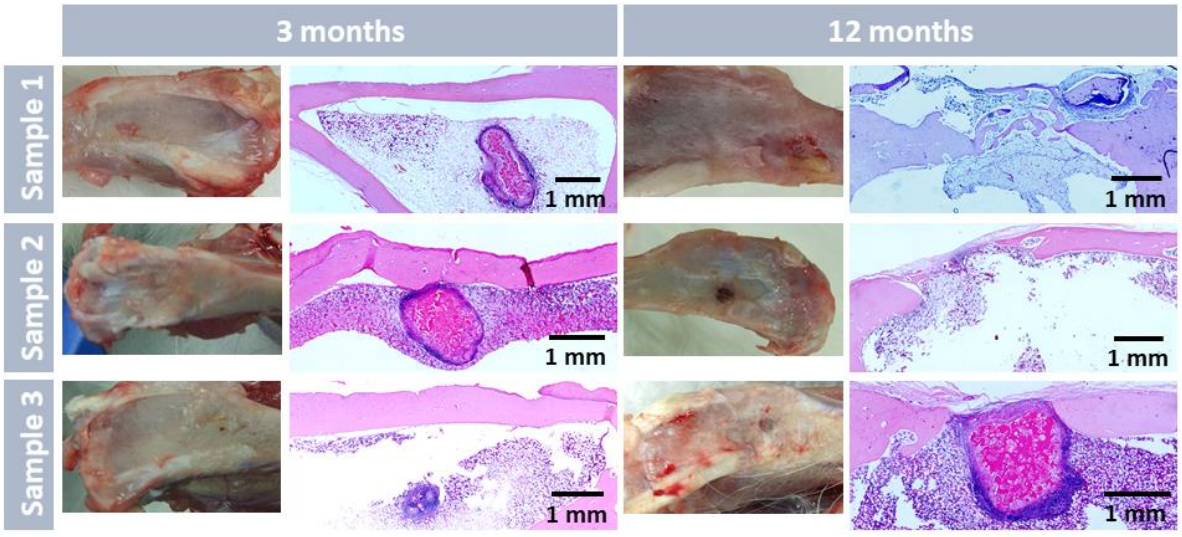

Fig. S6. Repair effects of tibial defects in young adult rabbits (3 months old) and aged adult rabbits (12 months old) at 18 weeks post-surgery evaluated by H&E staining.

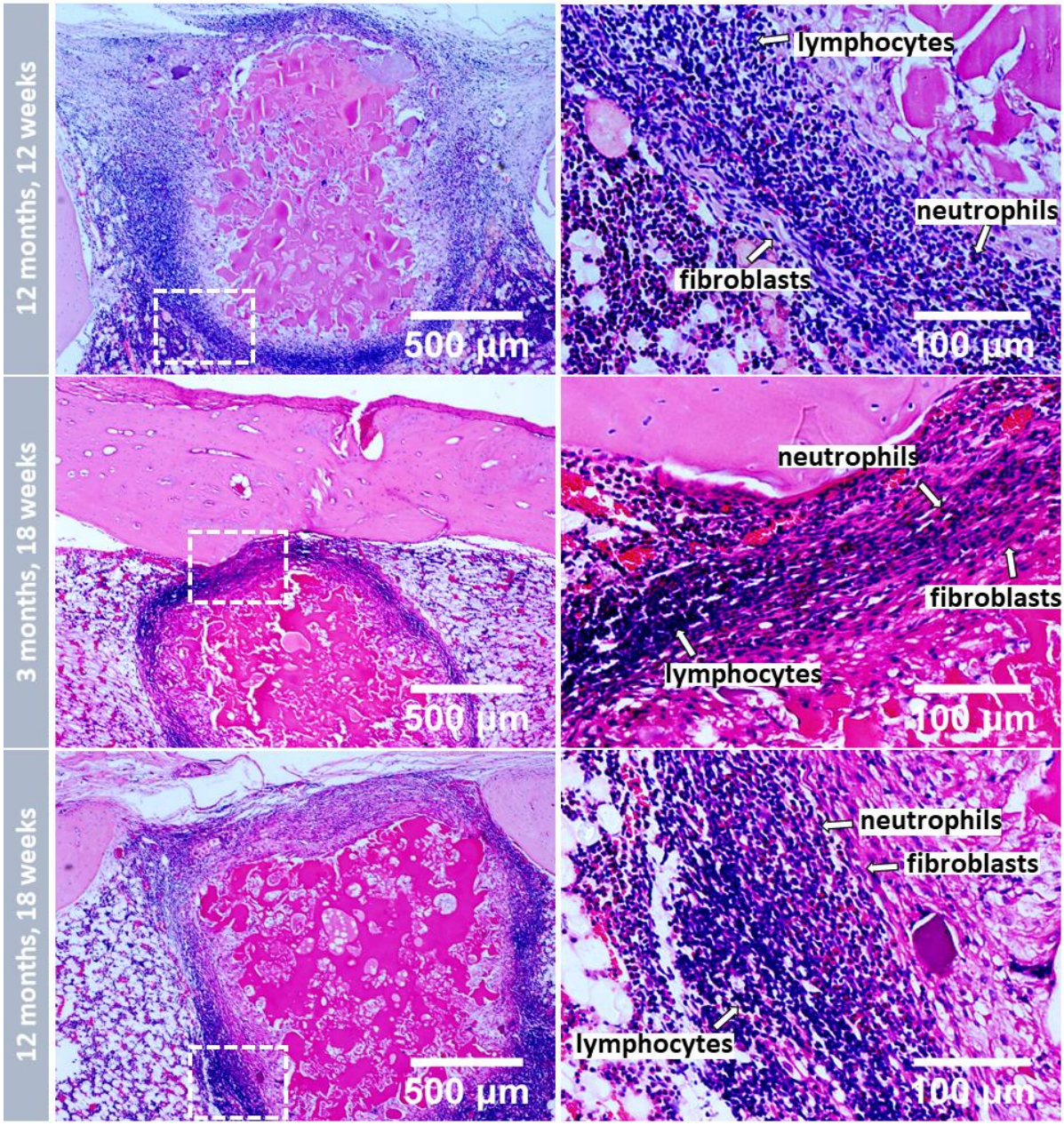

Fig. S7. Cell types surrounding the implanted fibrin-based constructs in tibial defects by H&E staining. Regions marked with white boxes are magnified in the right adjacent images.