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Supplementary

Directing osteogenic differentiation of BMSCs by cell-secreted decellularized extracellular matrixes from different cell origins

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Table S1 Primer sequences used for the RT-qPCR analysis in the present study.

Gene symbol	Primer sequences (5'-3')
Runx2	F: GCACCCAGCCCATAATAGA R: TTGGAGCAAGGAGAACCC
BMP2	F: GGAAAACTTCCCGACGCTTCT R: CCTGCATTTGTTCCCGAAA
OPN	F: GAGGAAACCAGCCAAGGTAAG R: AAAGCAAATCACTGCCAATC
ALP	F: AACGTGGCCAAGAACATCATCA R: TGTCCATCTCCAGCCGTGTC
Col-I	F: GCCTCCCAGAACATCACCTA R: GCAGGGACTTCTTGAGGTTG
18S-rRNA	F: GTAACCCGTTGAACCCCATT R: CCATCCAATCGGTAGTAGCG

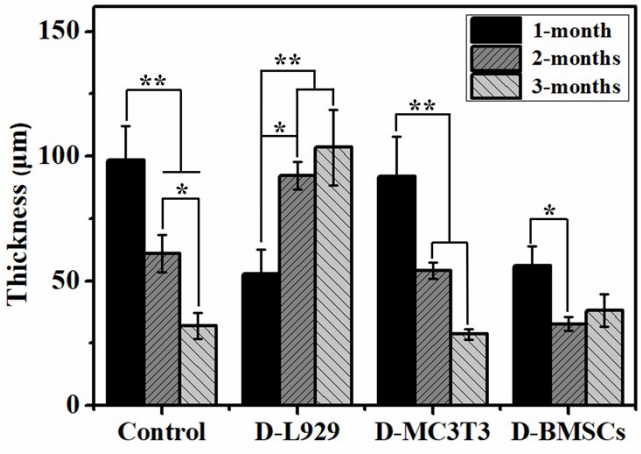

Fig. S1 Quantitative analysis on the thickness of middle layers where fibroblasts having infiltrated into alongside with post-implantation time basing on HE stained images shown in Fig.10. Significant *$p < 0.05$; highly significant **$p < 0.01$.

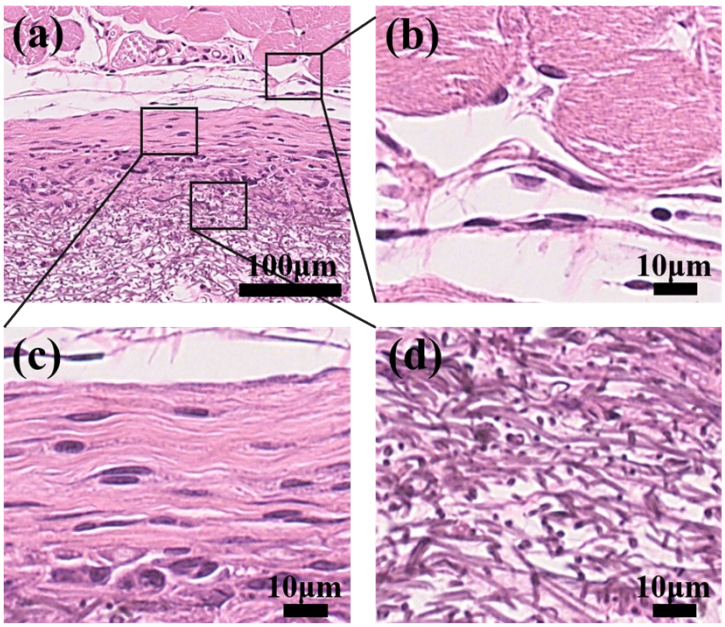

Fig. S2 Histological analysis by H&E staining for the control group at 1 month post-implantation with higher magnifications to show details for the upper, middle and lower parts of the implantation area. (a) Overall view; (b) Upper part, the area under the muscle tissue; (c) Middle part, where the fibroblasts infiltrating area; (d) Lower part, where the fibrous mesh locating.

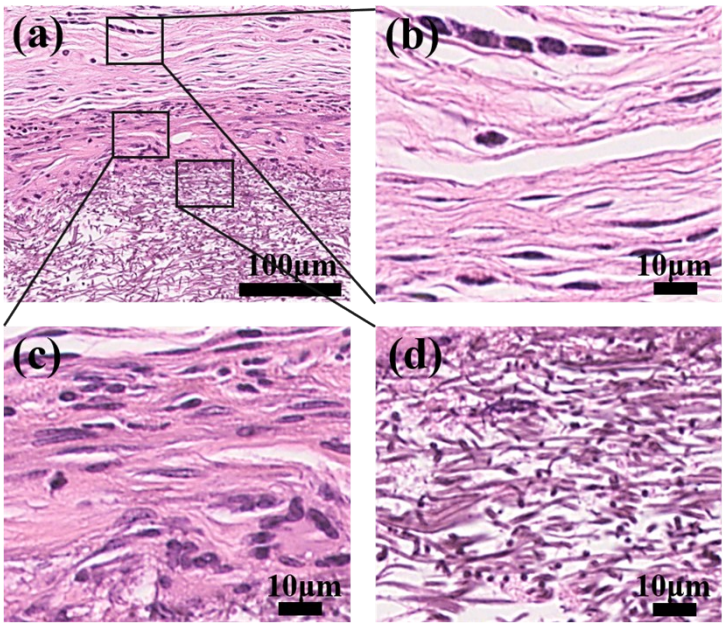

Fig. S3 Histological analysis by H&E staining for the D-L929 group at 1 month post-implantation with higher magnifications to show details for the upper, middle and lower parts of the implantation area. (a) Overall view; (b) Upper part, the area under the muscle tissue; (c) Middle part, where the fibroblasts infiltrating area; (d) Lower part, where the fibrous mesh locating.

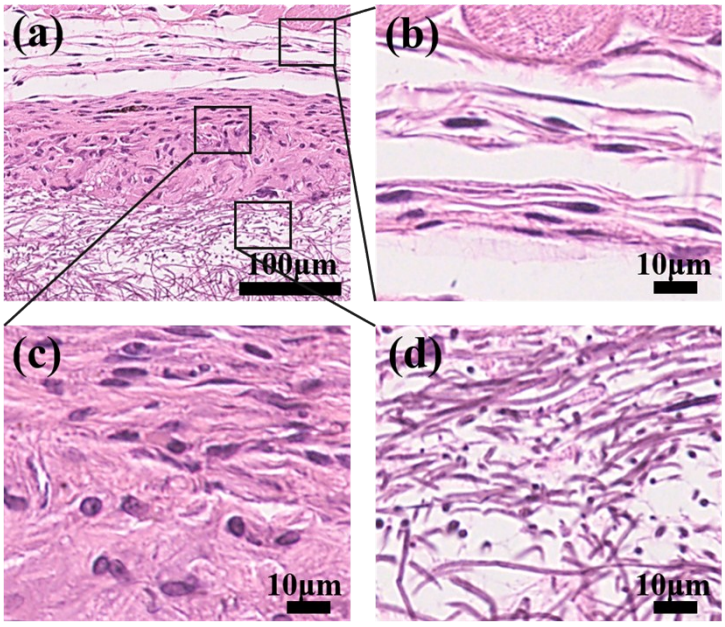

Fig. S4 Histological analysis by H&E staining for the D-MC3T3 group at 1 month post-implantation with higher magnifications to show details for the upper, middle and lower parts of the implantation area. (a) Overall view; (b) Upper part, the area under the muscle tissue; (c) Middle part, where the fibroblasts infiltrating area; (d) Lower part, where the fibrous mesh locating.

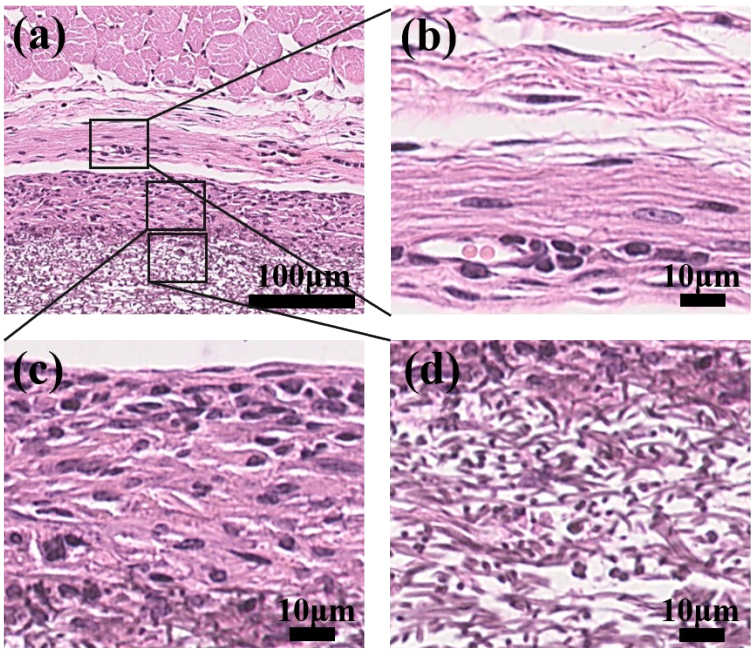

Fig. S5 Histological analysis by H&E staining for the D-BMSCs group at 1-month post-implantation with higher magnifications to show details for the upper, middle and lower parts of the implantation area. (a) Overall view; (b) Upper part, the area under the muscle tissue; (c) Middle part, where the fibroblasts infiltrating area; (d) Lower part, where the fibrous mesh locating.

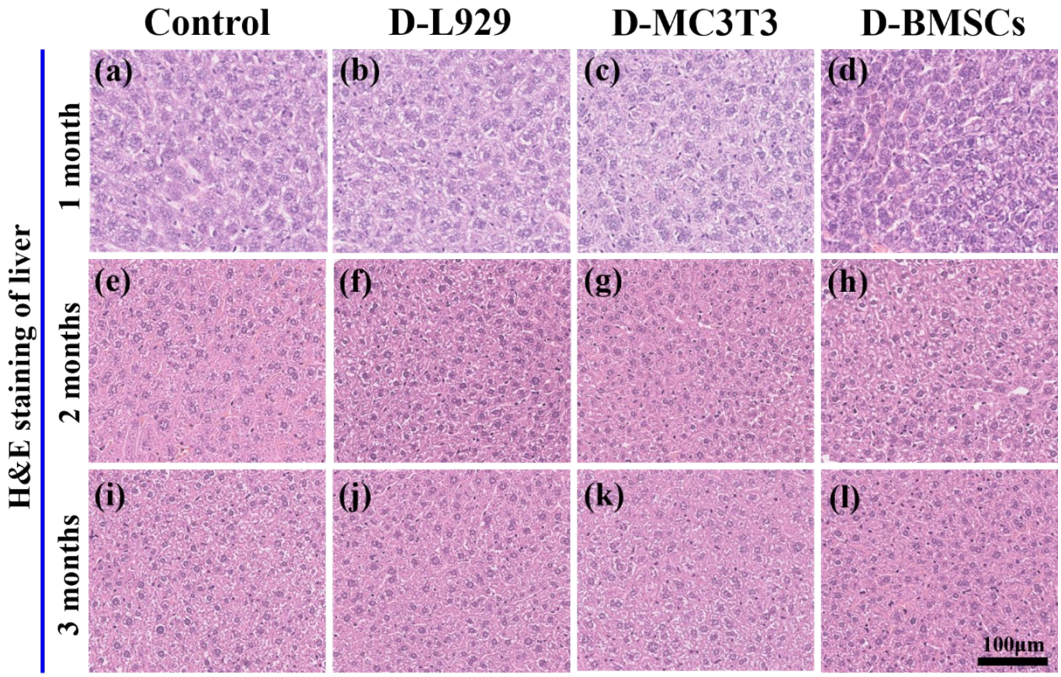

Fig. S6 H&E staining of liver histological sections for all the experimental groups at 1, 2 and 3 months post-implantation.

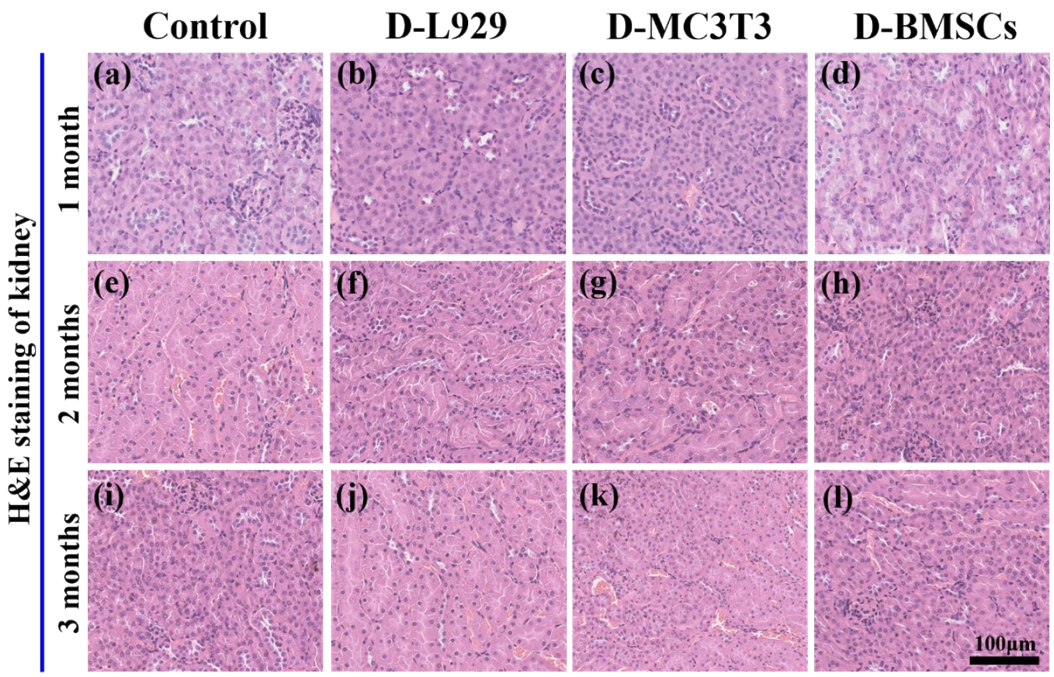

Fig. S7 H&E staining of kidney histological sections for all the experimental groups at 1, 2 and 3 months post-implantation.