Supporting Information

Sustained-release PDGF-BB nanocomposite hydrogel for bone regeneration in diabetes

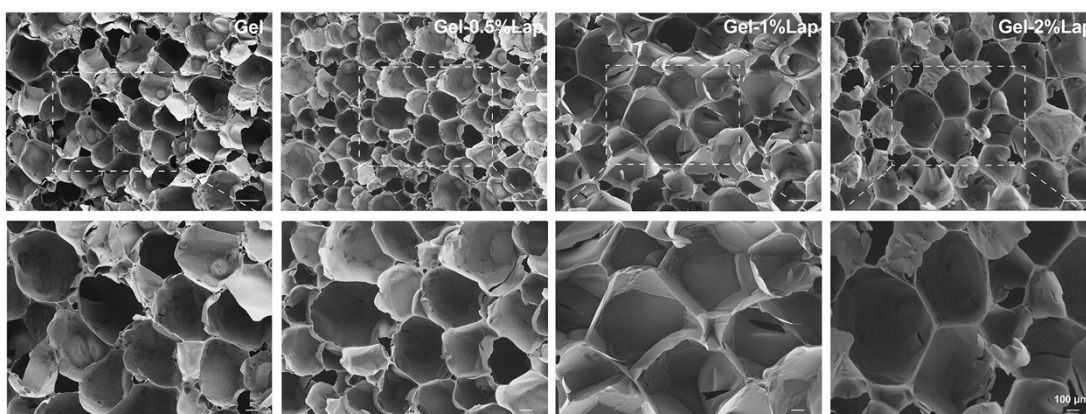Li Yaxin, Liu Ziyang, Zhao Chen, Xu Chenci, Li Dejian*, Lin Kaili*, Liu Jiaqiang*

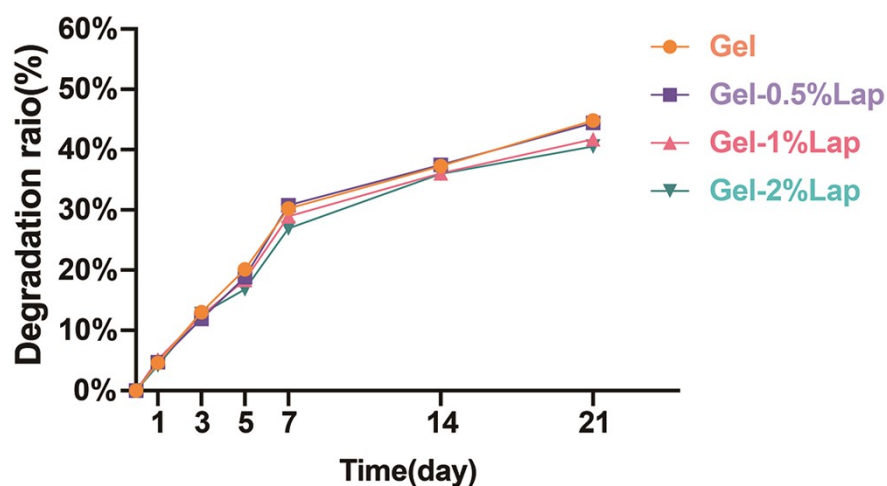**Fig. S1.** SEM images of Gel, Gel-0.5%Lap, Gel-1%Lap, and Gel-2%Lap. scale bars = 100 μm.

Fig. S2. Weight loss conditions with material degradation.
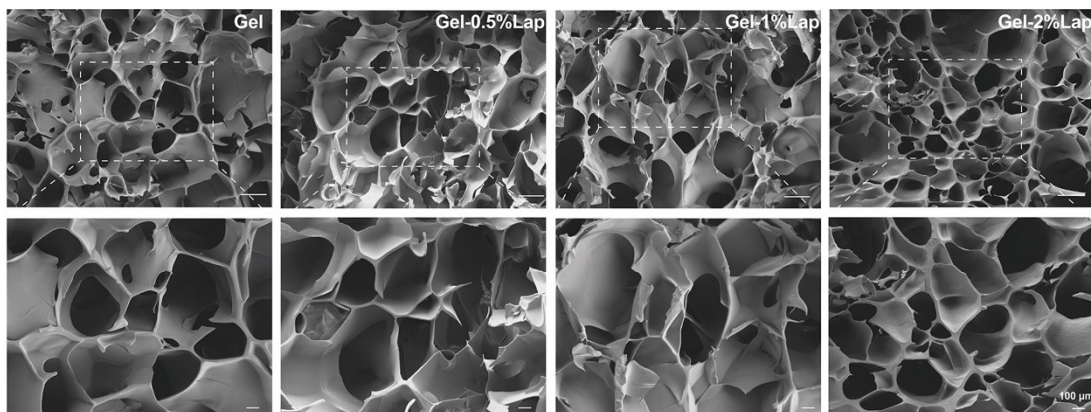
Fig. S3. SEM images of Gel, Gel-0.5%Lap, Gel-1%Lap, and Gel-2%Lap after 21 days of degradation. scale bars= 100 μm
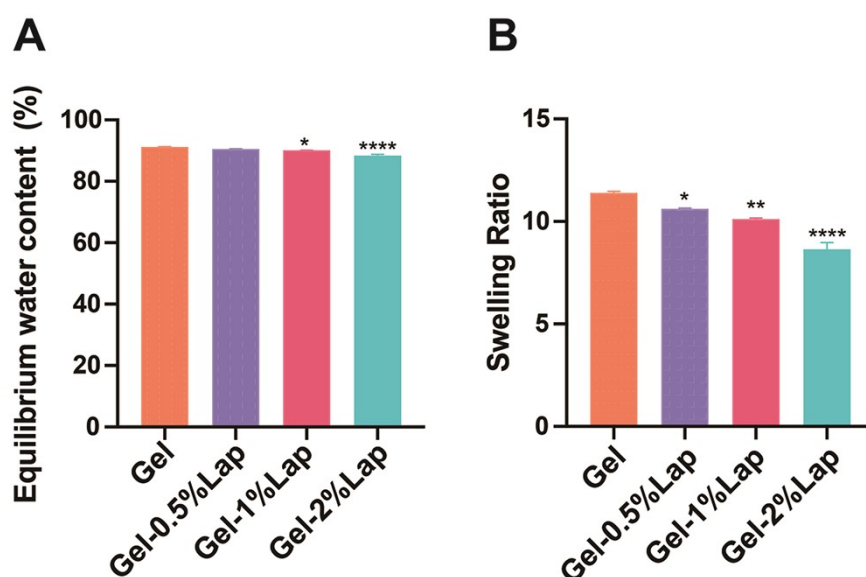

Fig. S4. (A) The swelling ratio and (B) equilibrium water content analysis of hydrogels with different content of Laponite.
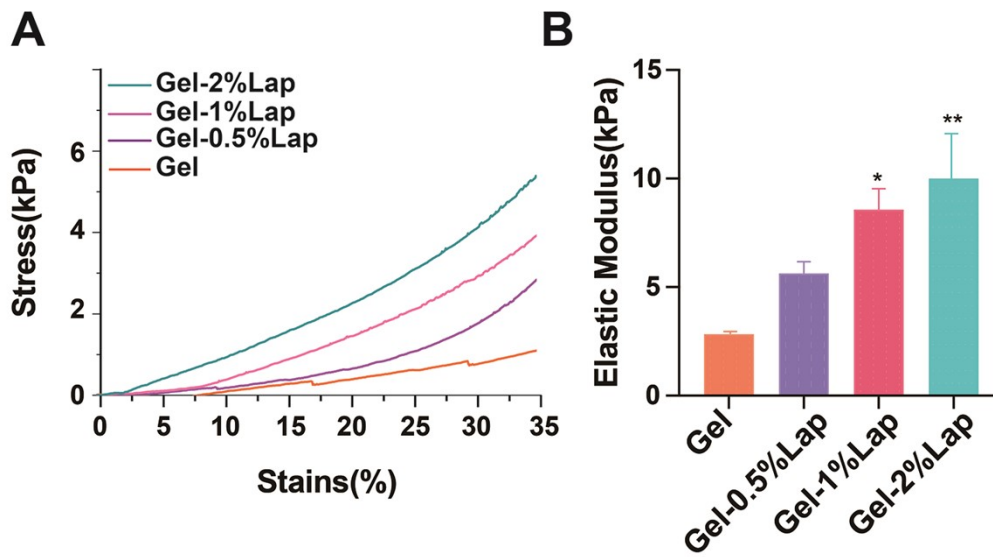
Fig. S5. (A) The stress–strain curve and (B) elastic modulus of Gel, Gel-0.5%Lap, Gel-1%Lap, and Gel-2%Lap.
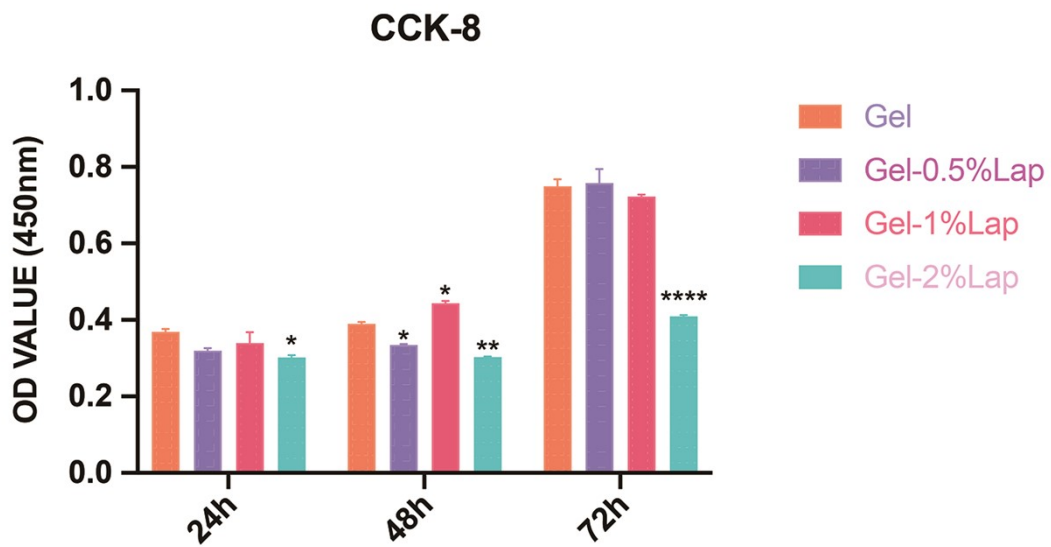

Fig. S6. Cell proliferation of BMSCs cultured on hydrogels with different laponite contents after culturing for 1, 2, 3 days.
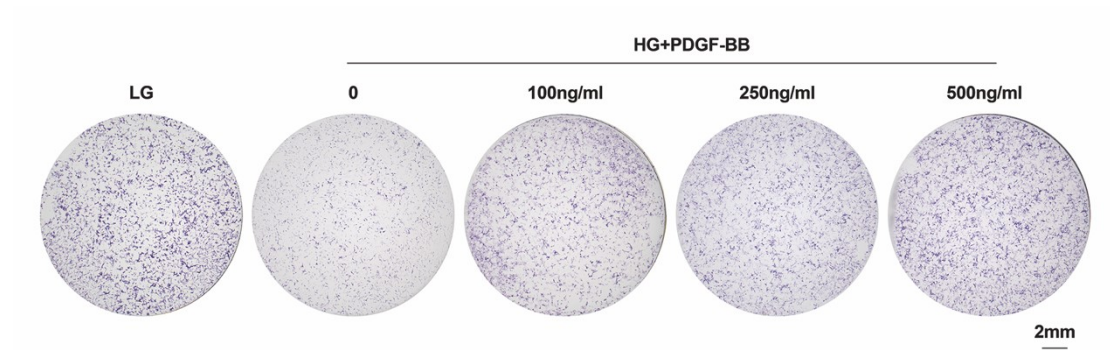
Fig. S7. ALP-stained images of rBMSCs co-cultured with PDGF@Gel hydrogels with different loading concentrations for 4 days. scale bars = 2 mm.

Table S1. The primer sequences of rBMSC in the qRT-PCR analysis of gene expression.

Gene	Gene forward primer sequence (5'-3')	Reverse primer sequences (5'-3')
ALP	TATGTCTGGAACCGCACTGAAC	CACTAGCAAGAAGAAGCCTTTGG
Runx2	ATCCAGCCACCTTCACTTACAAA	GGGACCATTGGGAACTGATAGG
OPN	CCAAGCGTGGAAACACACAGCC	GGCTTTGGAACTCGCCTGACTG
Col-I	CTGCCCAGAAGAATATGTATCACC	GAAGCAAAGTTTCCTCCAAGACC
VEGF	GGCTCTGAAACCATGAACTTTCT	GCAATAGCTGCGCTGGTAGAC
ANG-1	GGACAGCAGGCAAACAGAGCAGC	CCACAGGCATCAAACCACCAACC
β-actin	GTAAAGACCTCTATGCCAACA	GGACTCATCGTACTCCTGCT