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Direct 3D printing of tough hydrogel incorporated with carbon nanotubes for bone regeneration

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Gene	Forward primer (5'-3')	Reverse primer (5'-3')
COL I	GGCTCCTGCTCCTCTTAG	CAGTTCTTGGTCTCGTCAC
OCN	GGTGCAGACCTAGCAGACACC	AGGTAGCGCCGGAGTCTATTCA
	А	
RUNX2	TTACCTACACCCCGCCAGTC	TGCTGGTCTGGAAGGGTCC
β-actin	CATGTACGTTGCTATCCAGGC	CTCCTTAATGTCCGCACGAT

Table S1. Sequences of primers used in the real-time PCR.



Fig. S1. PIC scaffolds compression and recovery. (Scale bar is 5mm)



Fig. S2. H&E staining of SD rats' organs (heart, liver, lung, and kidney) after 2 weeks

of PIC and PIC/MWCNT scaffold implantation. (Scale bar: 75 µm)

Cell viability on PIC/MWCNT scaffolds

We performed in vitro 3T3 fibroblasts cultured in Dulbecco's Modified Eagle Medium (DMEM) with PIC/MWCNT scaffolds (PIC/NaCl = 1/10, w/v) to study the biocompatibility of PIC/MWCNT hydrogels. When the concentration of MWCNT in PIC/MWCNT hydrogels increased from 0.1% to 0.5% (w/v), the 3T3 fibroblasts showed a high viability on the PIC/MWCNT scaffolds scaffold with 0.3% MWCNT (Fig. S3).



Fig. S3. (A) 3T3 fibroblasts cell Live/Dead staining (Scale bar is 200 μm). (B)Quantitative analysis of 3T3 fibroblasts cell viability.