

Supporting Information (SI)

Self-assembly of dual drug-deliver coating for synergistic bone regeneration

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Table S1 The parameters of primers utilized for detecting osteogenic gene expression.

Gene	Direction	Sequence(5'-3')
ALP	Forward	CCA ACT CTT TTG TGC CAG AGA
	Reverse	GGC TAC ATT GGT GTT GAG CTT TT
Collagen I	Forward	GGT ATG CTT GAT CTG TAT CTG C
	Reverse	AGT CCA GTT CTT CAT TGC ATT
Osteocalcin	Forward	CTG ACA AAG CCT TCA TGT CCA A
	Reverse	GCG GGC GAG TCT GTT CAC TA
Runx2	Forward	CGG CCC TCC CTG AAC TCT
	Reverse	TGC CTG CCT GGG ATC TGT
GAPDH	Forward	GTC GTG GAG TCT ACT GGT GTC
	Reverse	GAG CCC TTC CAC AAT GCC AAA

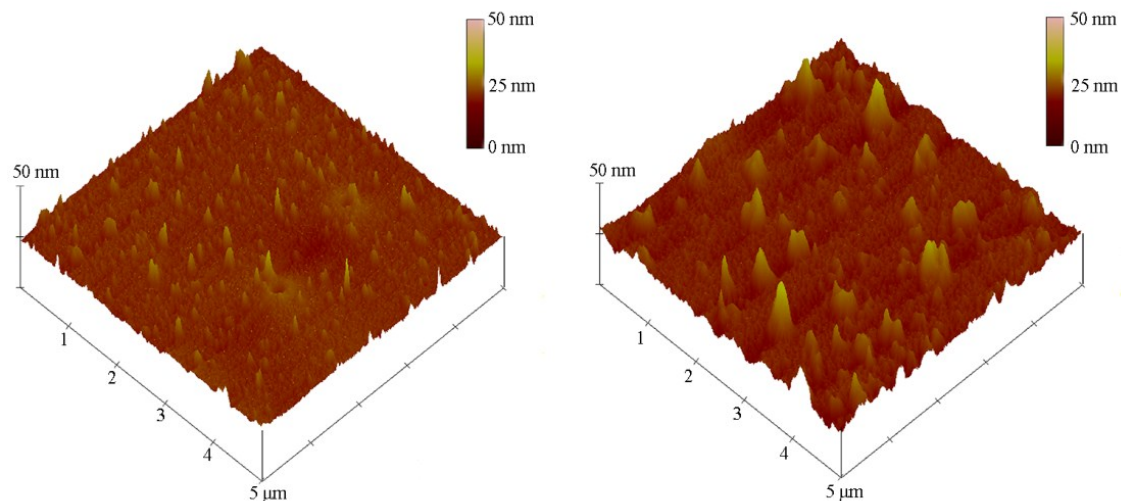


Fig. S1 AFM images of PLGA film (left) and PEI-aminolysed PLGA film (i.e. bare substrate, right)

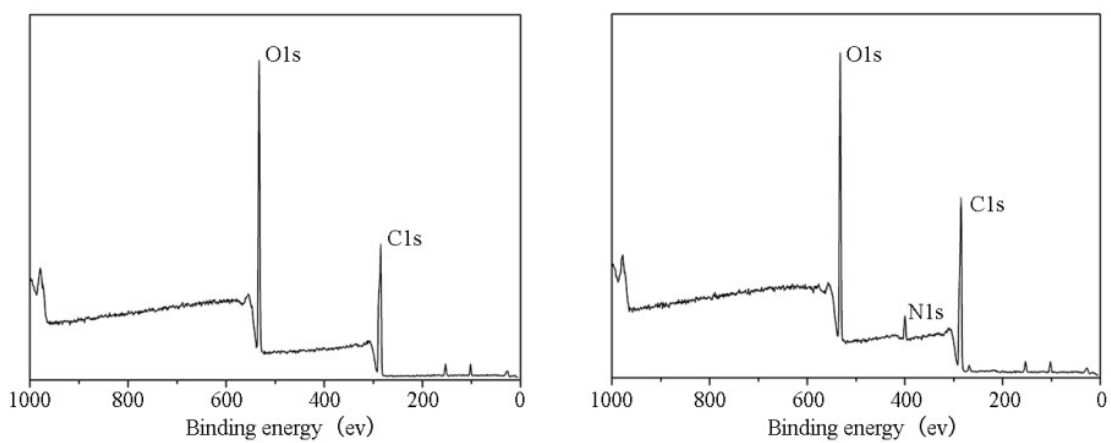


Fig. S2 XPS spectra PLGA film (left) and PEI-aminolysed PLGA film (i.e. bare substrate, right).

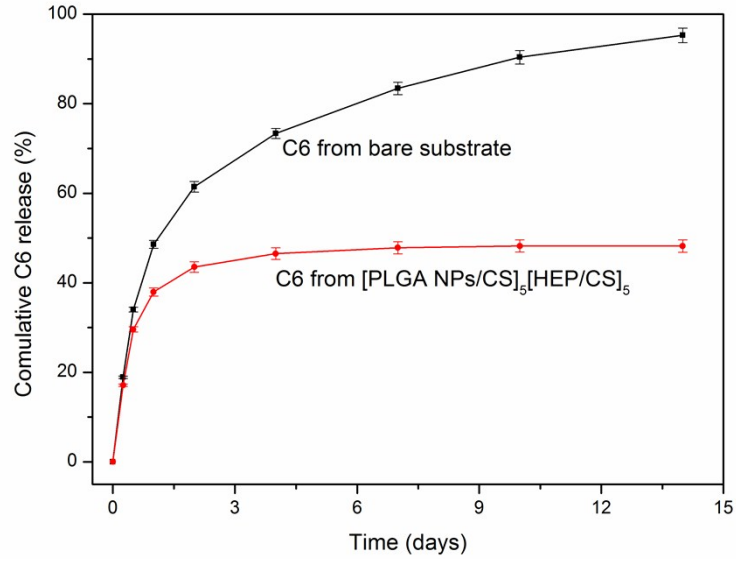


Fig. S3 Release profiles of C6 in PBS with 0.5% tween-80 from bare substrate (i.e. PEI-aminolysed PLGA film) and substrate with [PLGA NPs/CS]₅[HEP/CS]₅ coating.

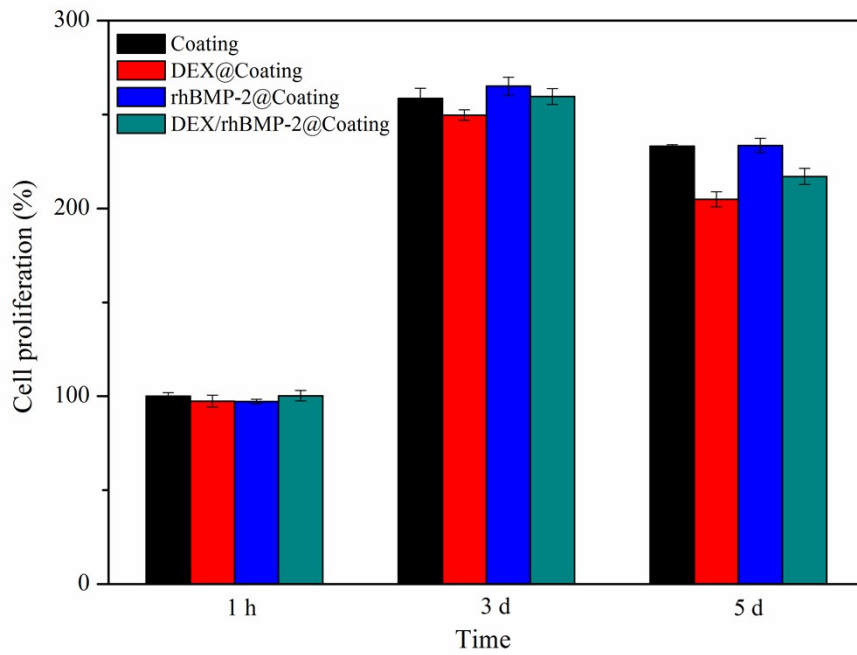


Fig. S4 Cell proliferation of C2C12 cells on different coating after 1 hour, 3 and 5 days incubation determined by CCK-8 assay.

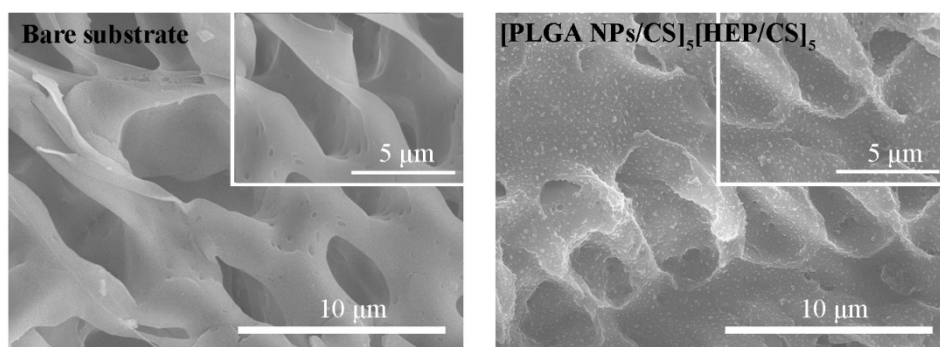


Fig. S5 SEM images of bare substrate (i.e. PEI-aminolysed PLGA scaffold) and substrate modified with [PLGA NPs/CS]₅[HEP/CS]₅ coating for in vivo study.