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## Supplementary material

**Supplemental Fig. S1.** XPS spectrum of CNPs and CNPs-PEG focused on the phosphorus (P2p) signals. (a) CNPs. (b) CNPs-PEG.



**Supplemental Fig. S2.** CNPs and CNPs-PEG in PBS, medium-199 and 10% FBS/PBS after centrifugation at 5000 g for 5 min.



**CNPs** 

**CNPs-PEG** 

Supplemental Fig. S3. SEM image of a CNPs-PEG/VEGF loaded PU scaffold (scale bar

= 10 µm).



**Supplemental Fig. S4.** Scaffold cytocompatibility. (a) LSCM image of EPCs on the scaffolds after 3 days of culture (scale bar =  $100 \ \mu$ m). (b) SEM image of EPCs on the scaffolds after 3 days of culture (scale bar =  $50 \ \mu$ m). (c) Viability of the EPCs after 3 days of culture. Data are expressed as the mean ± SD.



Supplement Table 1. Primer sets used for quantitative RT-PCR.

CD31	Forward Primer: 5'-TTCCCAAGCCGAAGTTAGAGTT-3'
	Reverse Primer: 5'-GGCGATCTTGCTGAAATTCTG-3'
KDR	Forward Primer: 5'-AGAACAGTAAGCGAAAGAGCCG-
	3'
	Reverse Primer: 5'-GGGCATCATTCCACCAAAAGA-3'
CDH5	Forward Primer: 5'-CCAGCCCTACGAACCTAAAGTG-3'
	Reverse Primer: 5'-GGTTTACTGGCACCACATCCTT-3'
VCAM1	Forward Primer: 5'-TGTTTGGCTCCAGACATTTACC-3'
	Reverse Primer: 5'-GAGCTTTTCCAATATCCTCAATG-3'
VWF	Forward Primer: 5'-TGAGGTGATTGCTTCTTACGCC-3'
	Reverse Primer: 5'-GAAGCTAGTGTTCCCATCGCAG-3'
GAPDH	Forward Primer: 5'-GACATCAAGAAGGTGGTGAAGC-3'
	Reverse Primer: 5'-GAAGGTGGAAGAGTGGGAGTT-3'