Supporting Information for

Favorable manipulation of macrophage/endothelial cell's functionality and their cross-talk on silicon-doped titania nanotube arrays

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Specimen	Ti (wt.%)	Si (wt.%)
Ti-Si1	98.8	1.2
Ti-Si2	97.6	2.4
Ti-Si4	95.4	4.6

Table S1 EDS results of the Ti-Si coatings

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Figure S1 Surface morphologies of Pure Ti and Ti-Si coatings. (a) Low magnification FE-SEM images of Pure Ti and Ti-Si coatings with different Si contents: 1.2 at% (Ti-Si1), 2.4 at% (Ti-Si2), and 4.6 at% (Ti-Si4). (b) High magnification images of the specimens.



Figure S2 Protein adsorbance onto the specimens after 24 h of incubation. *p<0.05 compared to TNAs, #p<0.05 compared to TNA-Si1, *p<0.05 compared to TNA-Si2, **p<0.01 compared to TNAs, ##p<0.01 compared to TNA-Si1.



Figure S3 TEM images of TNAs and TNA-Sis. (a) Images of the specimens at low magnification. (b) High-magnification images are taken from the area enclosed by the squares in corresponding low-magnification image. The inset in TNA-Si4 shows the SAED pattern.

Genes	Primer sequences	
Mouse species		
IL-18	Forward: 5'-TGGCCGACTTCACTGTACAAC-3'	
	Reverse: 5'-TGGGGTTCACTGGCACTTTG-3'	
IL-1β	Forward: 5'-TGGAGAGTGTGGATCCCAAG-3'	
	Reverse: 5'-GGTGCTGATGTACCAGTTGG-3'	
ΤΝΓα	Forward: 5'-CTGAACTTCGGGGTGATCGG-3'	
	Reverse: 5'-GGCTTGTCACTCGAATTTTGAGA-3'	
CD86	Forward: 5'-CTGCTCATCATTGTATGTCAC-3'	
	Reverse: 5'-ACTGCCTTCACTCTGCATTTG-3'	
iNOS	Forward: 5'-CACCAAGCTGAACTTGAGCG-3'	
	Reverse: 5'-CGTGGCTTTGGGCTCCTC-3'	
CD206	Forward: 5'-AGACGAAATCCCTGCTACTG-3'	
	Reverse: 5'-CACCCATTCGAAGGCATTC-3'	
IL-10	Forward 5'-GAGAAGCATGGCCCAGAAATC-3'	
	Reverse 5'-GAGAAATCGATGACAGCGCC-3'	
CD11C	Forward: 5'-CTGGATAGCCTTTCTTCTGCTG-3'	
	Reverse: 5'-GCACACTGTGTCCGAACTC-3'	
ARG1	Forward: 5'-CTCCAAGCCAAAGTCCTTAGAG-3'	
	Reverse: 5'-AGGAGCTGTCATTAGGGACATC-3'	
LC3A	Forward: 5'-ACAGCATGGTGAGCGTCTC-3'	
	Reverse: 5'-AGGTTTCTTGGGAGGCGTAG-3'	
LC3B	Forward: 5'-GATAATCAGACGGCGCTTGC-3'	
	Reverse: 5'-TCTCACTCTCGTACACTTCGG-3'	
ATG5	Forward: 5'-GATGCGGTTGAGGCTCAC-3'	
	Reverse: 5'-CTGTCATTCTGCAGTCCCATC-3'	
ATG7	Forward: 5'-AGCCTGTTCACCCAAAGTTC-3'	
	Reverse: 5'-CATGTCCCAGATCTCAGCAG-3'	
P62	Forward: 5'-AGCTGCTCTTCGGAAGTCAG-3'	
	Reverse: 5'-CICCAICIGIICCICIGGCIG-3'	
BMP-2	Forward: 5'-GCTCCACAAACGAGAAAAGC-3'	
	Reverse: 5'-AGCAAGGGGAAAAGGACACT-3'	
TGF-β1	Forward: 5'- CAGTACAGCAAGGTCCTTGC-3'	
	Reverse: 5'- ACGTAGTAGACGATGGGCAG-3'	
VEGF	Forward: 5'-GTCCCATGAAGTGATCAAGTTC-3'	
	Reverse: 5'-1CTGCATGGTGATGTTGCTCTCTG-3'	
GAPDH	Forward: 5'-TGACCACAGTCCATGCCATC-3'	
	Reverse: 5'-GACGGACACATTGGGGGTAG-3'	

Table S2 RNA Primers applied in this study