
Supporting Information

M2 Macrophages Contribute to Osteogenesis and Angiogenesis on Nanotubular TiO₂ Surfaces

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Table S1 Sequences of primers used for real-time polymerase chain reaction

gene	species	primer sequence	
		forward	reverse
IL-1 β	Mus musculus	CTCACAAGCAGAGCACAAGC	TCCAGCCCATACTTTAGGAAGA
iNOS	Mus musculus	TCACGCTTGGGTCTTGTTCA	GGGGAGCCATTTTGGTGACT
TNF- α	Mus musculus	GCCCATATACCTGGGAGGAG	CACCCATTCCCTTCACAGAG
IL-10	Mus musculus	TGCTATGCTGCCTGCTCTTA	TGTTGTCCAGCTGGTCCTTT
ARG 1	Mus musculus	GTGAAGAACCCACGGTCTGT	CTGGTTGTCAGGGGAGTGTT
BMP-2	Mus musculus	AAGTCAGTGGGAGAGCTTCG	TTGGTGCAAAGACCTGCTAA
TGF- β	Mus musculus	GAAGTGGATCCACGAGCCCAAG	GCTGCACTTGCAGGAGCGCAC
VEGF	Mus musculus	GACTTGTGTTGGGAGGAGGA	TCTGGAAGTGAGCCAATGTG
PDGF	Mus musculus	TCTGTGGAGTGGCTGTGTGT	GGAAGTGGAGGCAATGGAC
MMP-9	Mus musculus	TCTACTGGGCGTTAGGGACA	TCGGGAGAGAGAGGAGTCTG
AMPK- α 1	Mus musculus	CAAGCTGTGGCTCACCCA	GCATAGAGAATGACCCCGCT
OPN	Mus musculus	TGGAACTTGCTTGACTATCGA	GACCACATGGACGACGATG
OCN	Mus musculus	CCGGGAGCAGTGTGAGCTTA	AGGCGGTCTTCAAGCCATACT
COL X	Mus musculus	GGCAGCAGCATTACGACCCAAGAT	GAATAACAGACACCACCCCTCAC
β -actin	Mus musculus	TGGACTTCGAGCAAGAGATGG	ATCTCCTTCTGCATCCTGTCTG
SDF 1	Homo sapiens	TGAGAGCTCGCTTTGAGTGA	CACCAGGACCTTCTGTGGAT
vWF	Homo sapiens	CCCCTGAAGCCCCTCCTCCTA	ACGAACGCCACATCCAGAACC
GAPDH	Homo sapiens	GGAGTCCACTGGCGTCTTC	GCTGATGATCTTGAGGCTGTTG

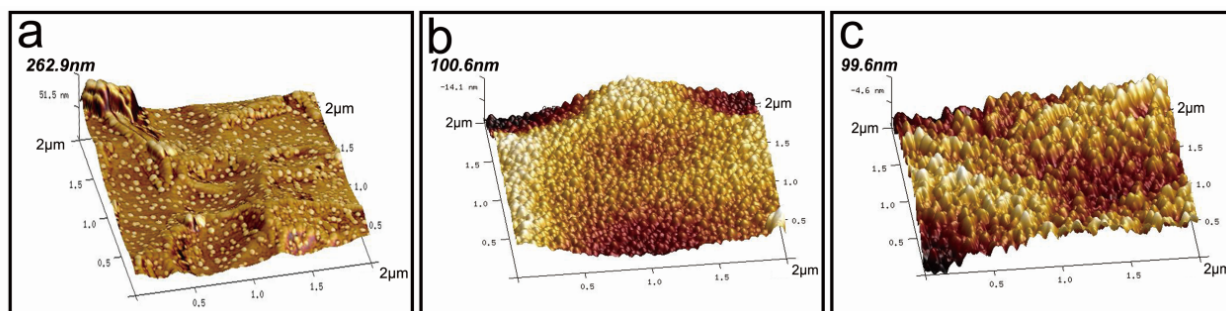


Figure S1. Surface characterization of the three titanium surfaces. (a, b, c) Representative AFM images showing the surface topographies of the three samples (cp Ti, NT 10 and NT 20).

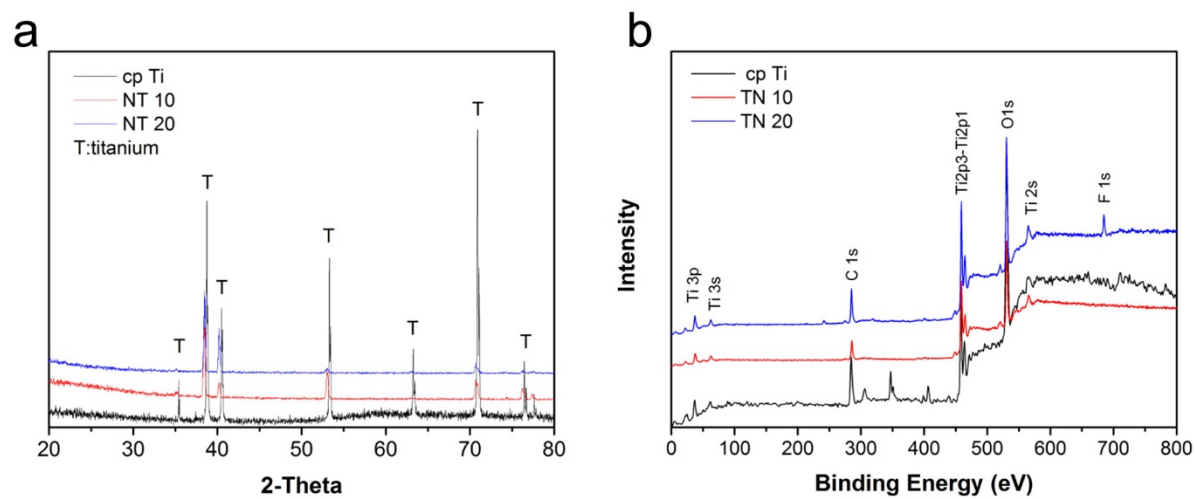


Figure S2. The thin-film X-ray diffractometer (a) and X-ray photoelectron spectroscopy pattern (b) of the three types of specimens.

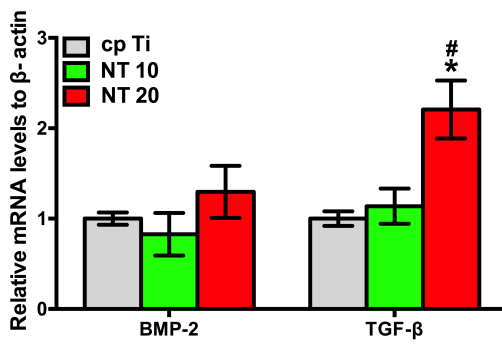


Figure S3. Real-time PCR detection of osteogenic related genes (BMP-2 and TGF-β) in macrophages cultured on the samples (cp Ti, NT 10 and NT 20) for 24 hours. Notes: * $p < 0.05$ compared to the cp Ti surface; # $p < 0.05$ compared to the NT 10 surface.

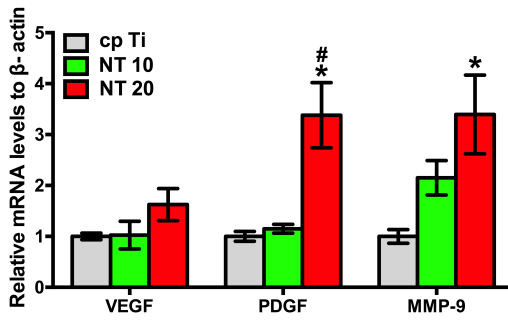


Figure S4. Real-time PCR detection of angiogenic related genes (VEGF, PDGF and MMP-9) in macrophages cultured on the samples (cp Ti, NT 10 and NT 20) for 24 hours. Notes: * $p < 0.05$ compared to the cp Ti surface; # $p < 0.05$ compared to the NT 10 surface.