

Electronic Supplementary Information

Rapid Osteogenic Differentiation of Mesenchymal Stem Cells on Hydroxyapatite Nanocrystal Clusters-Oriented Nanotopography

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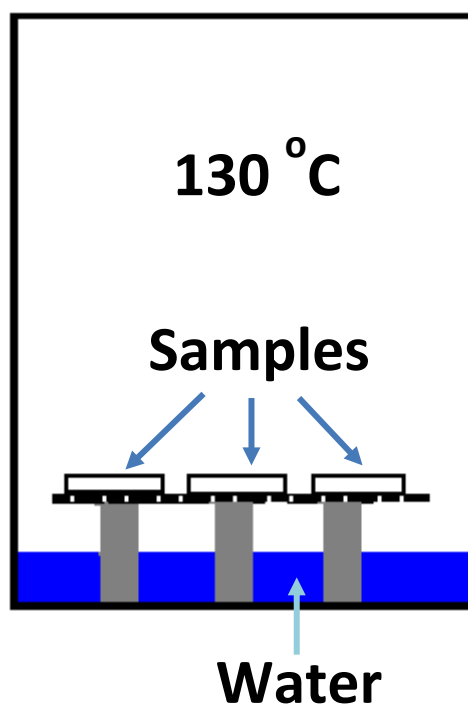


Fig. S1. The schematic illustration of the device for high temperature water-vapor treatment. In the practical process, the samples (the as-sprayed HAP slices) were placed on a porous teflon plate, which is supported to isolate from water, and then the device was heated under 130 °C for 2 h.

Table S1. Detailed information about the primer sequences used for RT-PCR.

Symbol	Accession No.	Primers	
GAPDH	NM_001082253.1	Forward	5'-ATGGGGAAGGTGAAGGTCG-3'
		Reverse	5'-TAAAAGCAGCCCTGGTGACC-3'
Cbfa-1	AY598934	Forward	5'-TCTGGCCTTCCACTCTCAGT-3'
		Reverse	5'-GACTGGCGGGGTGTAAGTAA-3'
BMP-2	NM_001082650	Forward	5'-CTTGGAGGAGAAGCAAGGTG-3'
		Reverse	5'-AGTTACGAGCAAAGGCCTGA-3'
Col-I	Z74615	Forward	5'-CGTGGTGACAAGGGTGAGAC-3'
		Reverse	5'-TAGGTGATGTTCTGGGAGGC-3'
OPN	NM_001082194	Forward	5'-CGCAGAATGCTATGTCCTCA-3'
		Reverse	5'-GTGGTCATCGTCCTCATCCT-3'
BSP	XM_008267617.1	Forward	5'-CTGGGGCCATAGAAAACAAA-3'
		Reverse	5'-GTGACGCTCTCTCCTTCACC-3'
OCN	XM_002715383.2	Forward	5'-CAGCCTTCGTGTCCAAGAG-3'
		Reverse	5'-TTTATTGGGAGCAGCTGGAG-3'

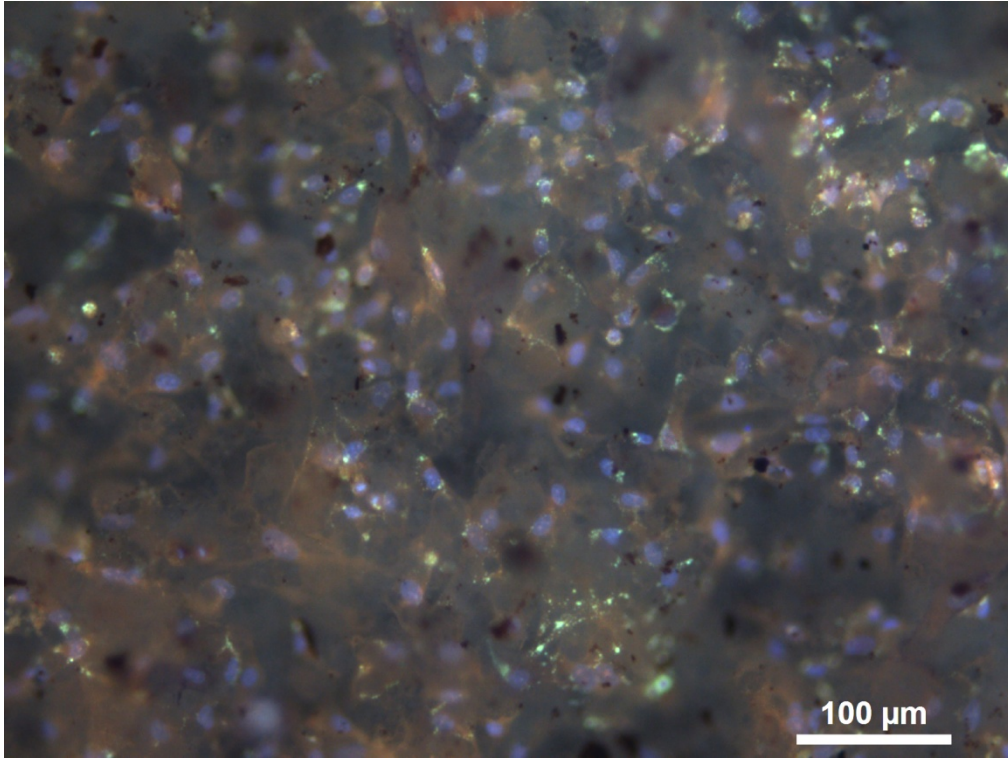


Fig. S2. The magnified ALP staining of MSCs cultured on the HAP nanocrystal clusters for 4 days.

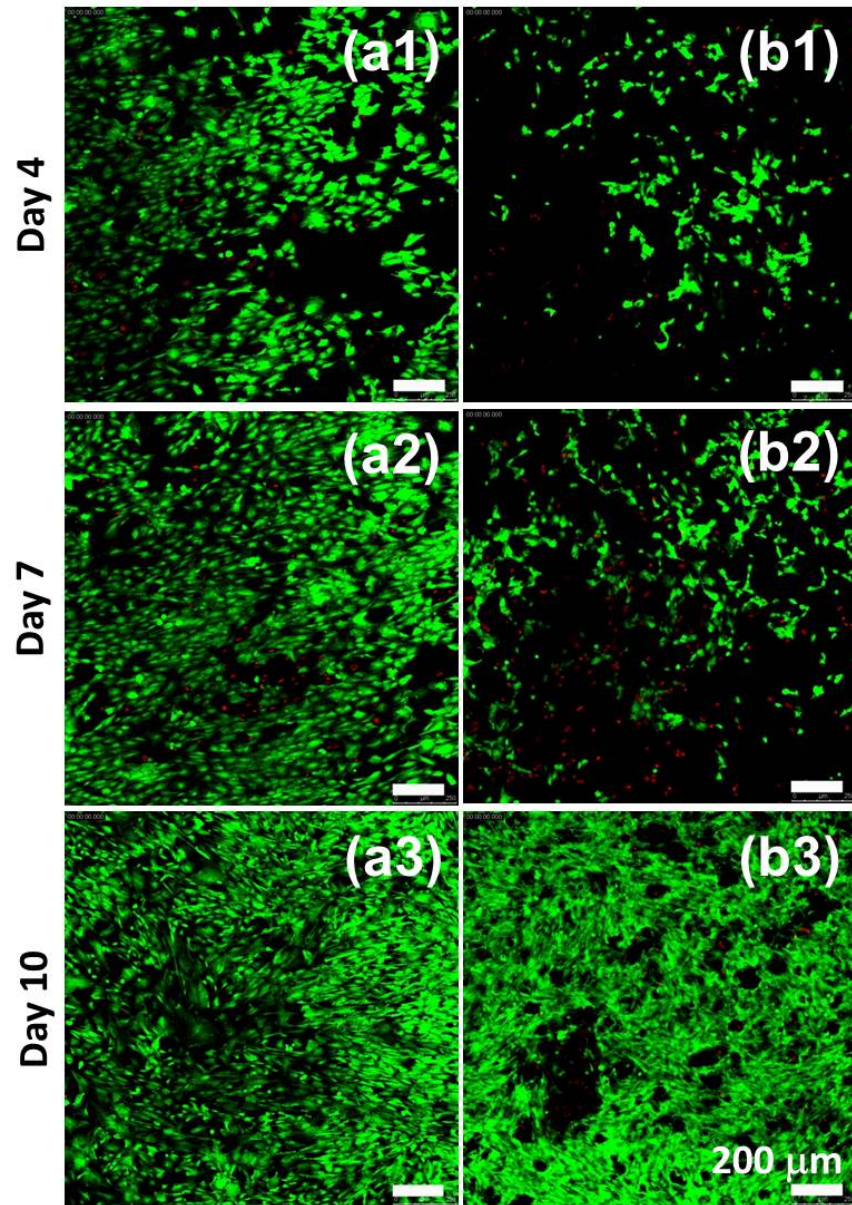


Fig. S3. Live-dead staining of MSCs cultured on (a1-a3) the smooth HAP surface over time and (b1-b3) the HAP nanocrystal-clusters.