Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B. This journal is © The Royal Society of Chemistry 2017

Supporting Information

Sub-10 nm gold nanoparticles promote adipogenesis and inhibit osteogenesis of mesenchymal stem cells

Jingchao Li^{a,b}, Ying Chen^{a,b}, Yingjun Yang^{a,b}, Naoki Kawazoe^a and Guoping Chen^{*a,b}

^a International Center for Materials Nanoarchitectonics, National Institute for Materials Science, 1-1

Namiki, Tsukuba, Ibaraki 305-0044, Japan

^b Department of Materials Science and Engineering, Graduate School of Pure and Applied Sciences,

University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki 305-8577, Japan

* Corresponding author.

Tel: +81-29-860-4496, Fax: +81-29-860-4714, E-mail: Guoping.CHEN@nims.go.jp.

Table S1. The primers and probes for real-time PCR.

mRNA	Oligonucleotide
ALP	Forward 5'-GACCCTTGACCCCCACAAT-3'
	Reverse 5'-GCTCGTACTGCATGTCCCCT-3'
	Probe 5'-TGGACTACCTATTGGGTCTCTTCGAGCCA-3'
IBSP	Forward 5'-TGCCTTGAGCCTGCTTCC-3'
	Reverse 5'-GCAAAATTAAAGCAGTCTTCATTTTG-3'
	Probe 5'-CTCCAGGACTGCCAGAGGAAGCAATCA-3'
SPPI	Forward 5'-CTCAGGCCAGTTGCAGCC-3'
	Reverse 5'-CAAAAGCAAATCACTGCAATTCTC-3'
	Probe 5'-AAACGCCGACCAAGGAAAACTCACTACC-3'
FABP4	Hs00609791_m1
FASN	Hs00188012_m1
СЕВРА	Hs00269972_s1



Fig. S1 UV-Vis spectra of Au4-*m*PEG and Au40-*m*PEG NPs.



Fig. S2 Hydrodynamic size of Au4-mPEG and Au40-mPEG NPs dispersed in water.



Fig. S3 Young's modulus of hMSCs after treatments without Au NPs (control) or with Au4-*m*PEG and Au40-*m*PEG NPs. The data are presented as mean \pm SD values. *** p < 0.001.