**Table S1**. Surface area, pore volume and pore diameter of different particle types.

 Samples Surface area (m2/g) Pore volume (cm3/g) Pore diameter (nm)

 MSNs 616.2 ± 0.9 0.369 ± 0.008 3.0 ± 0.2

 MSN+SH 397.4 ± 4.2 0.257 ± 0.005 2.7 ± 0.3

 MSN+SA 302.4 ± 6.5 0.121 ± 0.001 2.2 ± 0.1

 MSN+SA+G 333.8 ± 2.5 0.057 ± 0.001 -

Note: Data represent the mean ± SD of three biological replicates.