Supplementary Information

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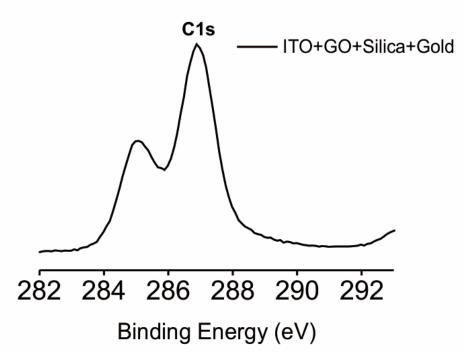


Figure S1. The XPS data of ITO/GO/SiNPs/GNPs.

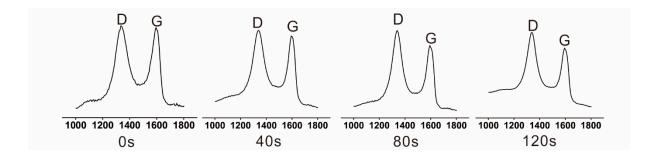


Figure S2. Raman spectroscopy spectra of each sample.

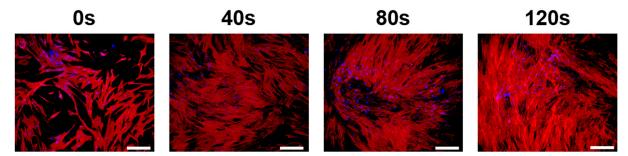


Figure S3. Fluorescence images of hADSCs grown on different substrates. F-Actin (red) and nucleus (blue) double-stained fluorescence images of hADSCs that were cultured on four different substrates. Images were used as source for cell growth and spreading analysis (Figure 4). (Scale bars = 200um).

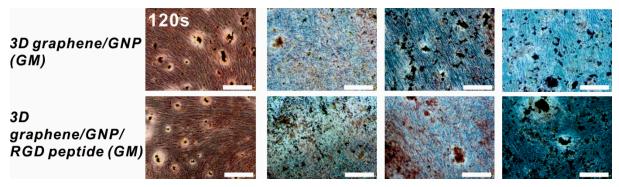


Figure S4. Optical microscopic images of hADSCs with growth medium. Confirmation of differentiation of hADSC growth on 3D nanoislands were revealed for 4 weeks. (Scale bar = $200 \mu m$).