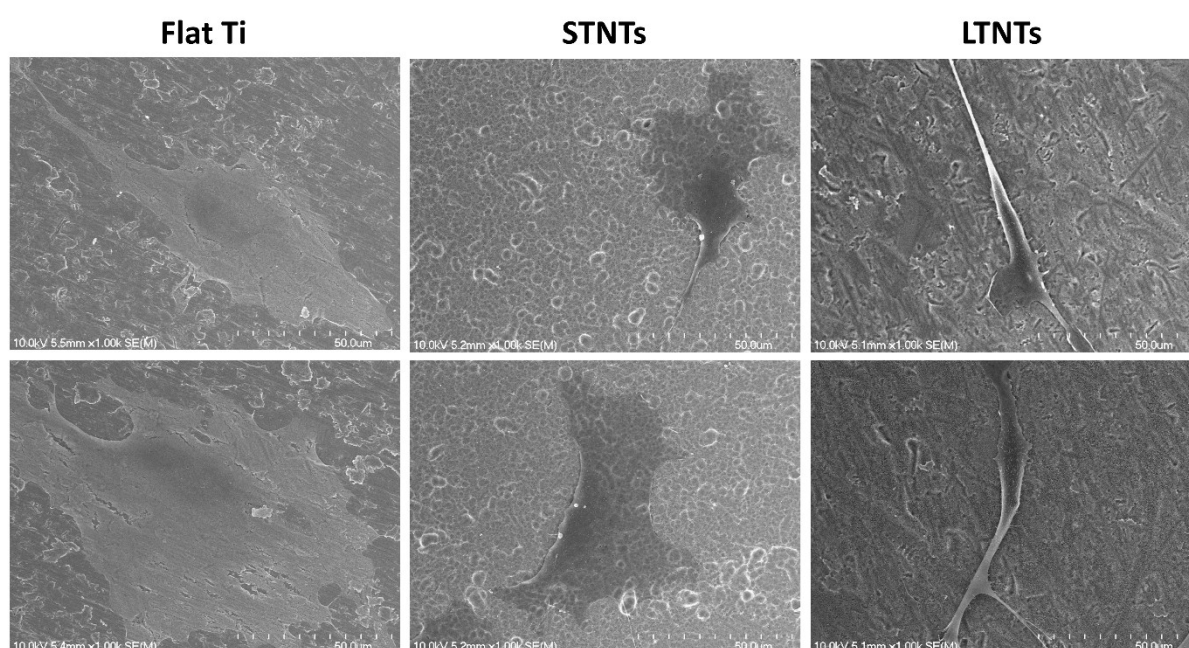


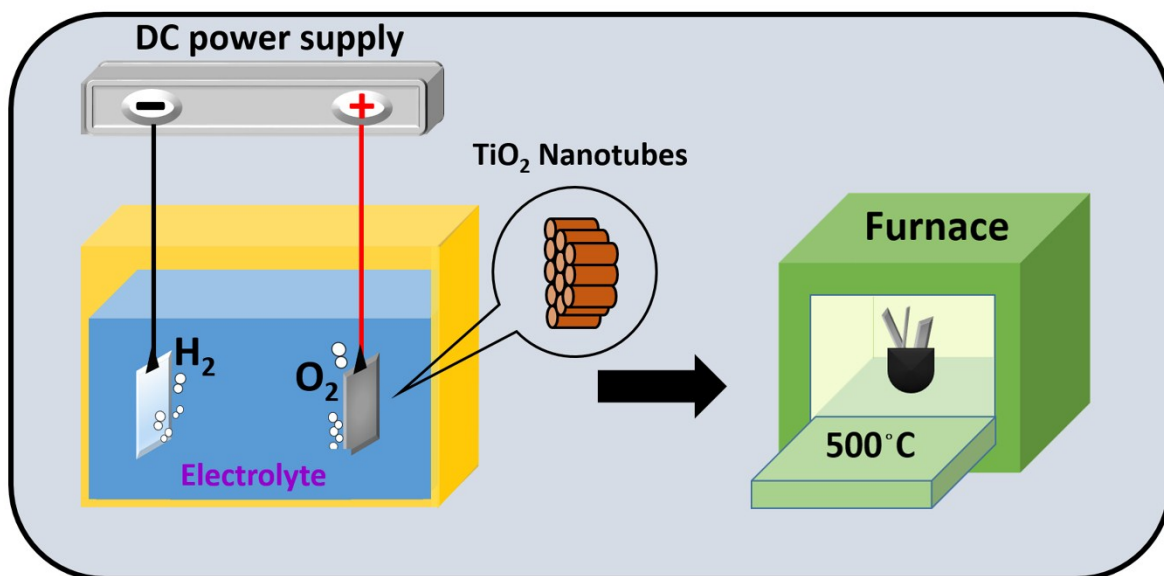
## Supplementary Information

### Titanium Nanotubes Induce Osteogenic Differentiation Through the FAK/RhoA/YAP Cascade

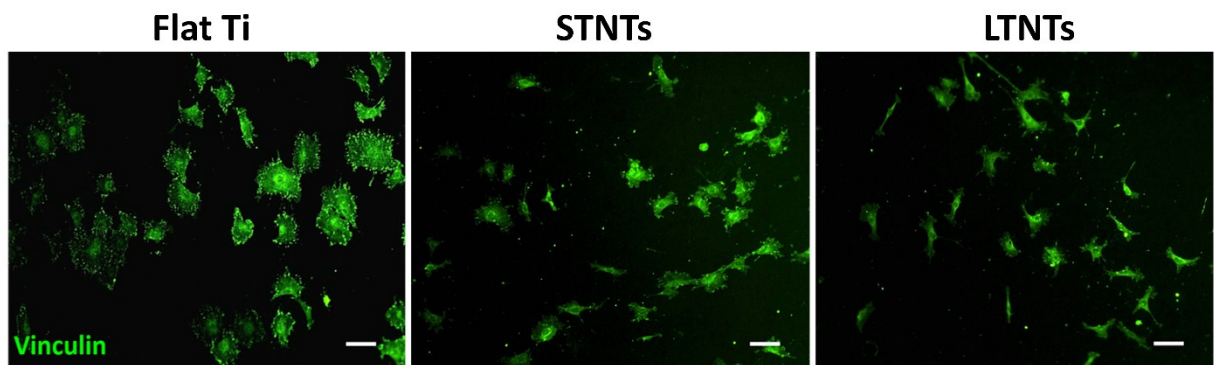
He Zhang, Lyndon F. Cooper, Xiaonan Zhang, Yi Zhang, Feng Deng, Jinlin Song, Sheng Yang\*



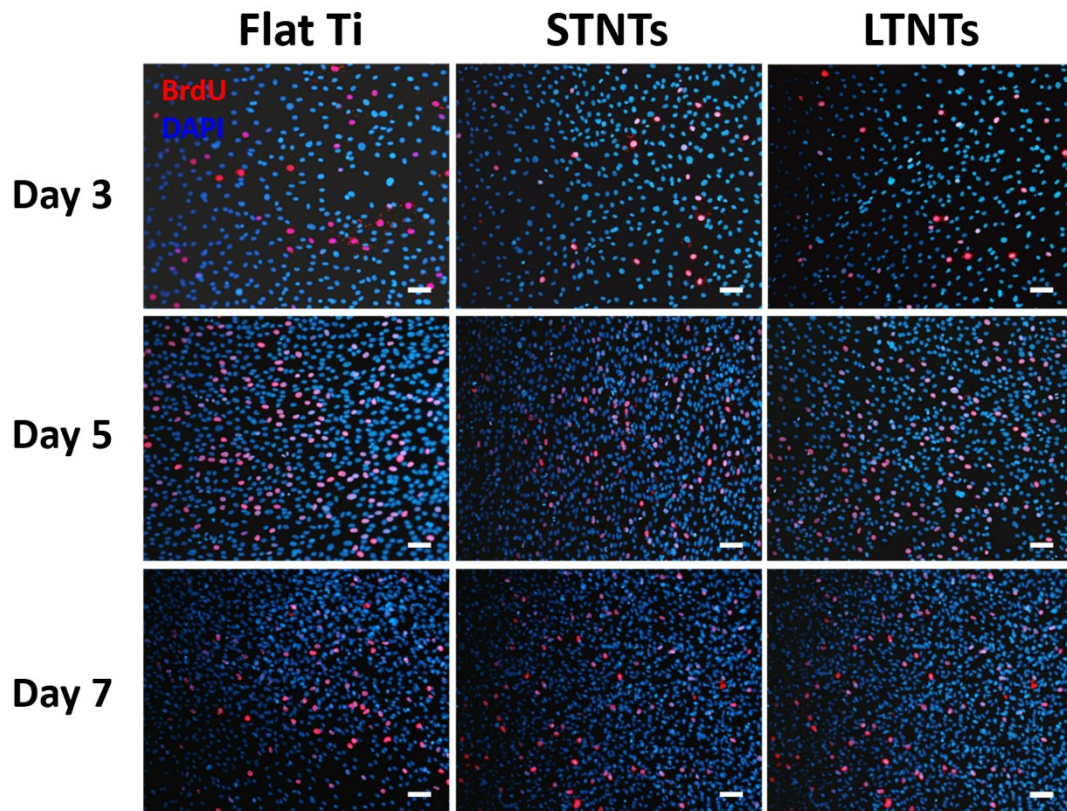
**Fig. S1** SEM images of MC3T3-E1 cells on smooth Ti, STNTs and LTNTs.



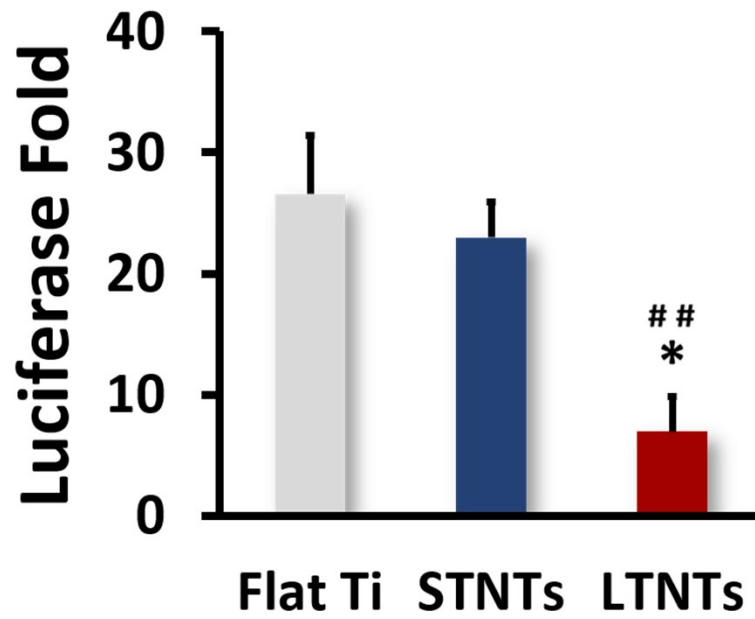
**Fig.S2** Schematic diagram of anodizing process to fabricate TNTs.



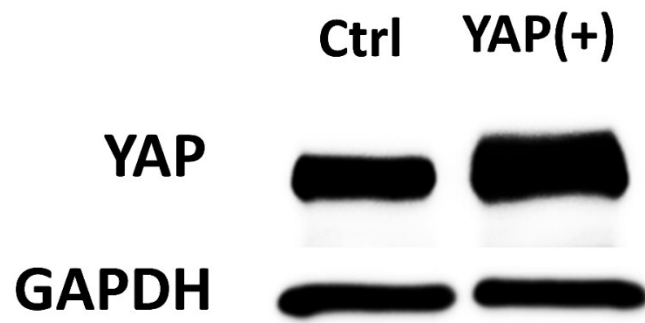
**Fig.S3** Immunofluorescent staining of focal adhesion with Anti-Vinculin antibody (scale bars=100 $\mu$ m).



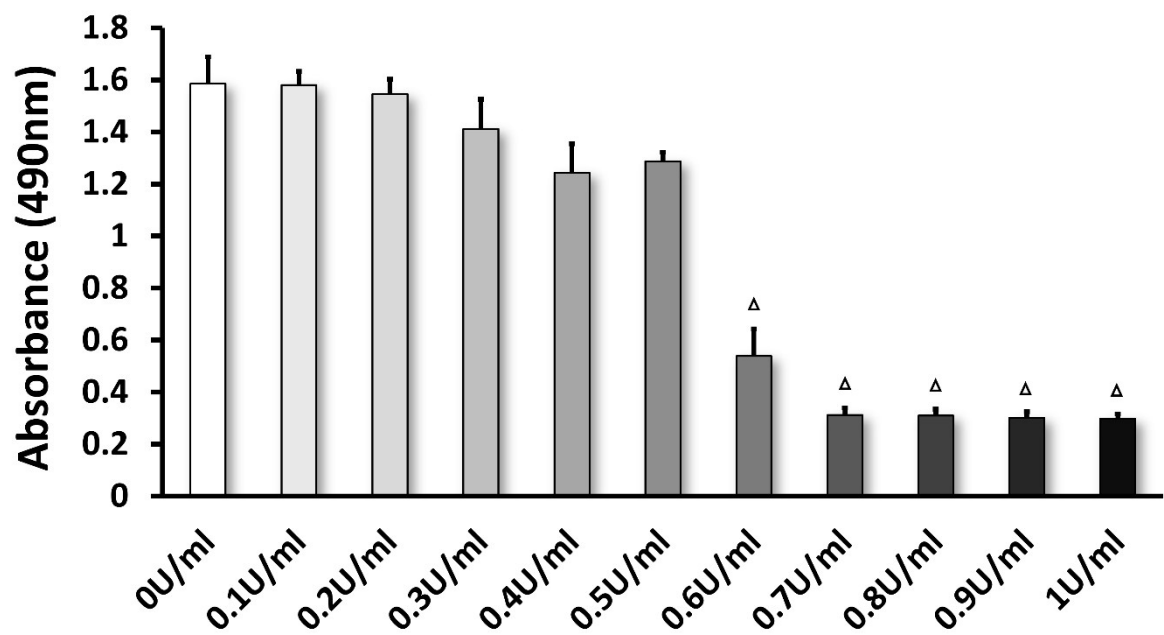
**Fig. S4** Immunofluorescent labeling of BrdU (red) and DAPI (blue) for MC3T3-cells cultured on smooth Ti, STNTs and LTNTs for 3, 5 and 7 days (scale bars=100 $\mu$ m).



**Fig. S5** Luciferase activity of the YAP reporter (8×GTIIIC-luciferase) in MC3T3-E1 cells cultured on the three substrates (\* $p < 0.05$ , vs smooth Ti; ## $p < 0.01$ , vs STNTs.  $n = 3$ ).



**Fig. S6** Western Blot result of YAP overexpression in MC3T3-E1 cells.



**Fig. S7** The effects of different CN01 concentration on MC3T3-E1 cells livability tested with MTS assay ( $\Delta p < 0.05$ , vs 0U/ml. n=3.).