

Supporting Information.

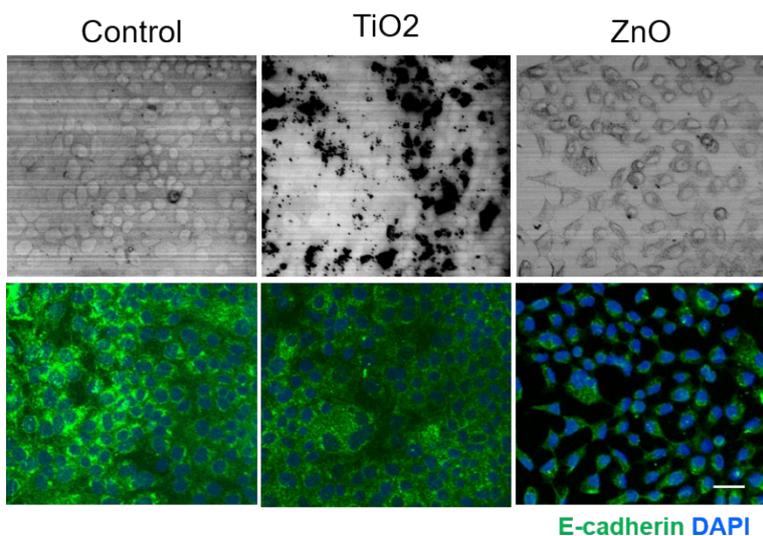


Figure S1. The morphology of HPAEpiCs exposed to TiO₂-NPs and ZnO-NPs. Green: E-cadherin; Blue: DAPI; The concentration of TiO₂-NPs: 200µg/ml; The concentration of ZnO-NPs: 200µg/ml. Scale bar: 30µm.

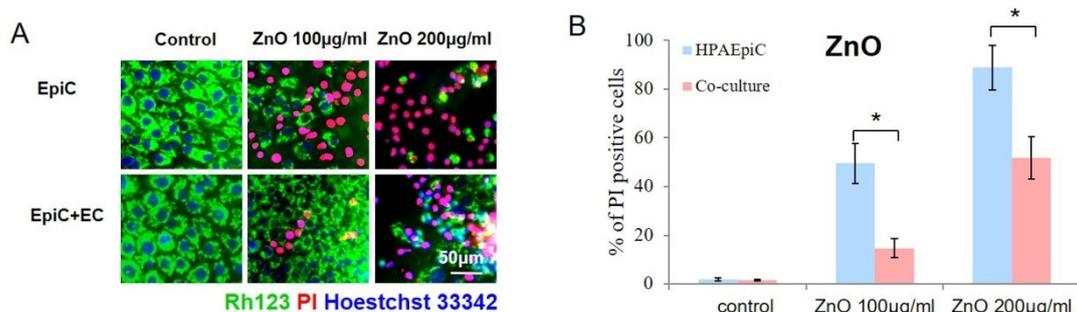


Figure S2. The co-culture of HUVECs and HPAEpiCs inhibit the ZnO-NPs induced apoptosis. Fluorescent images of HPAEpiCs under ZnO-NPs treatment with/without coculturing HUVECs; Scale bar:50µm; B. Statistical analysis of apoptotic HPAEpiCs. * indicates p<0.05; Error bar: S.D. n=3.

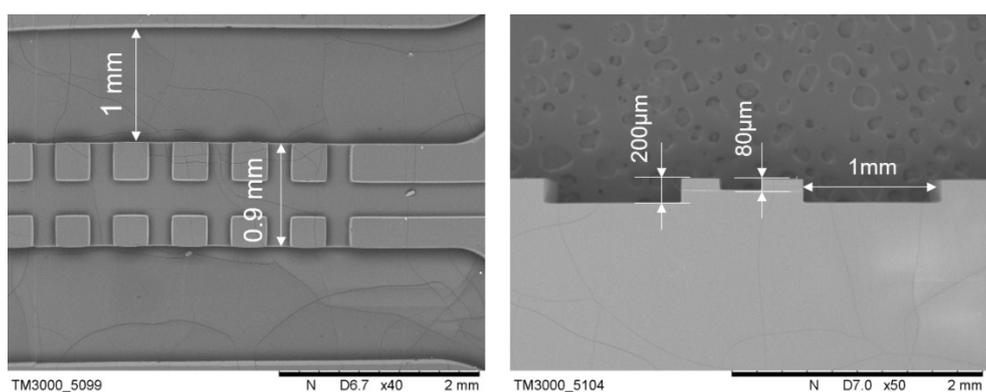


Figure S3. SEM images of the lung-on-a-chip. Left: Top view of the channels design of the microfluidic chip; Right: side view of the channels.

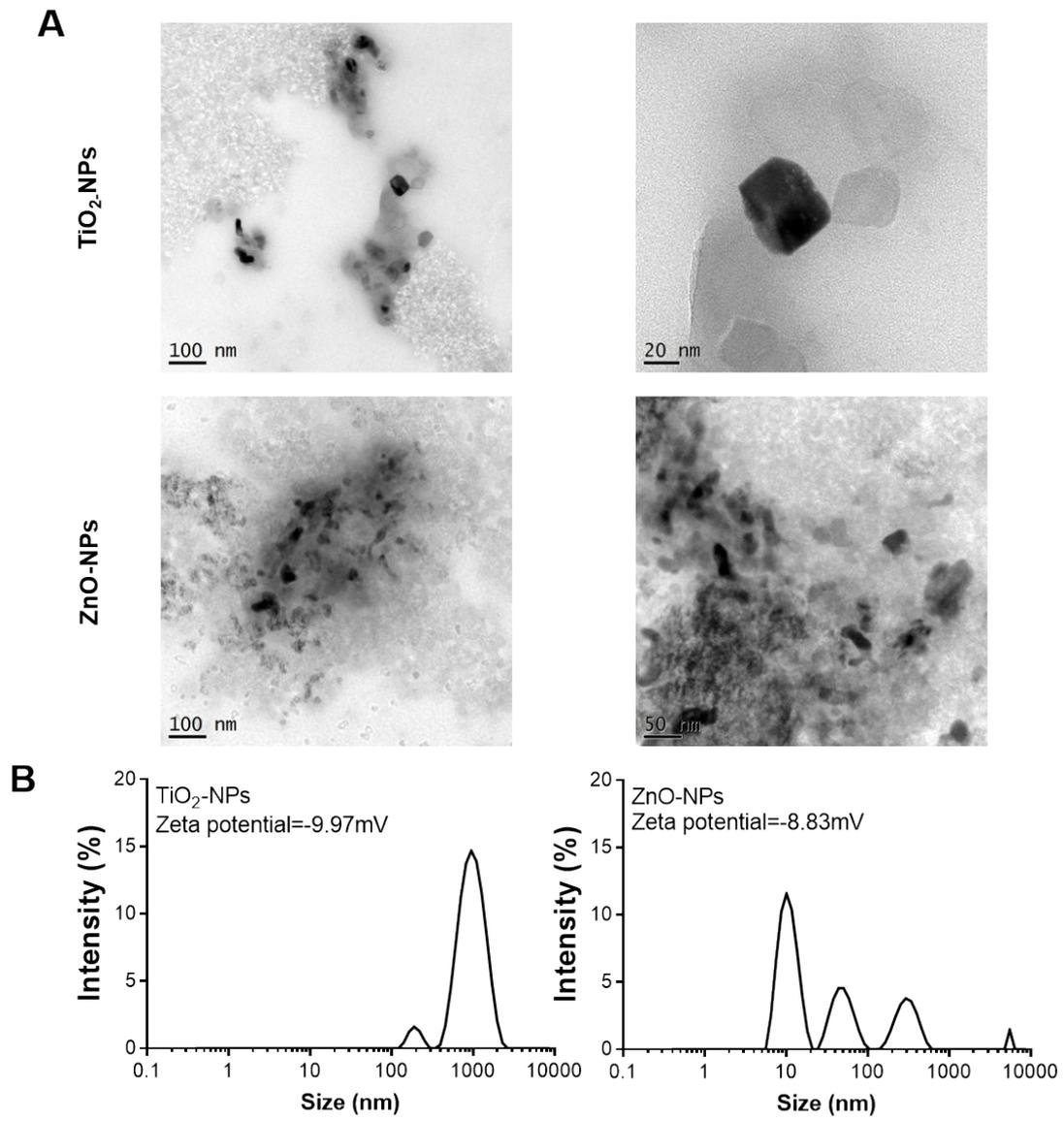


Figure S4 Characterization of TiO₂-NPs and ZnO-NPs. A. TEM images of the TiO₂-NPs and ZnO-NPs; B. Size distribution and Zeta potential of TiO₂-NPs and ZnO-NPs in RPMI 1640 medium. The X-axes are logarithmic.