

## SUPPLEMENTARY MATERIAL

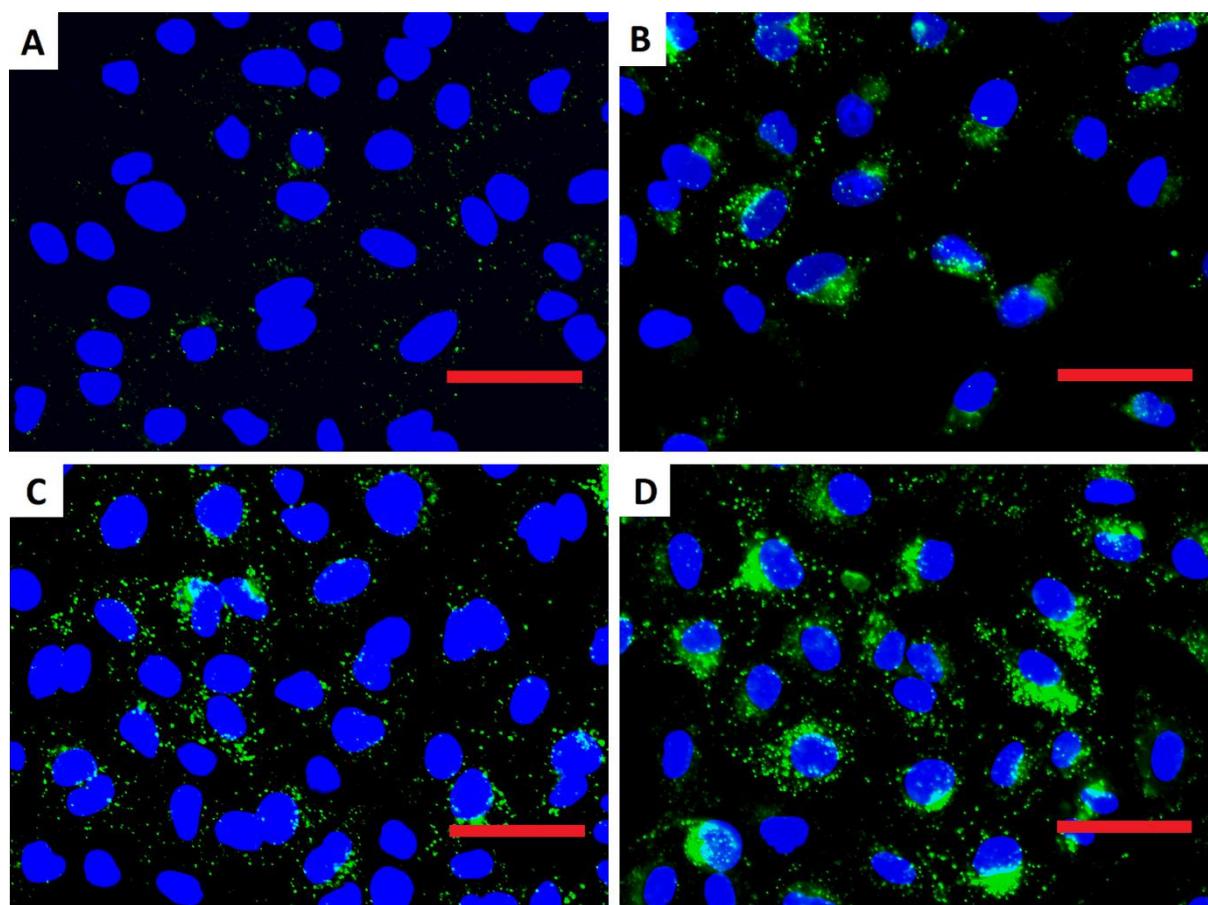
### Grouping of poorly soluble low (cyto)toxic particles: example with 15 selected nanoparticles and A549 human lung cells

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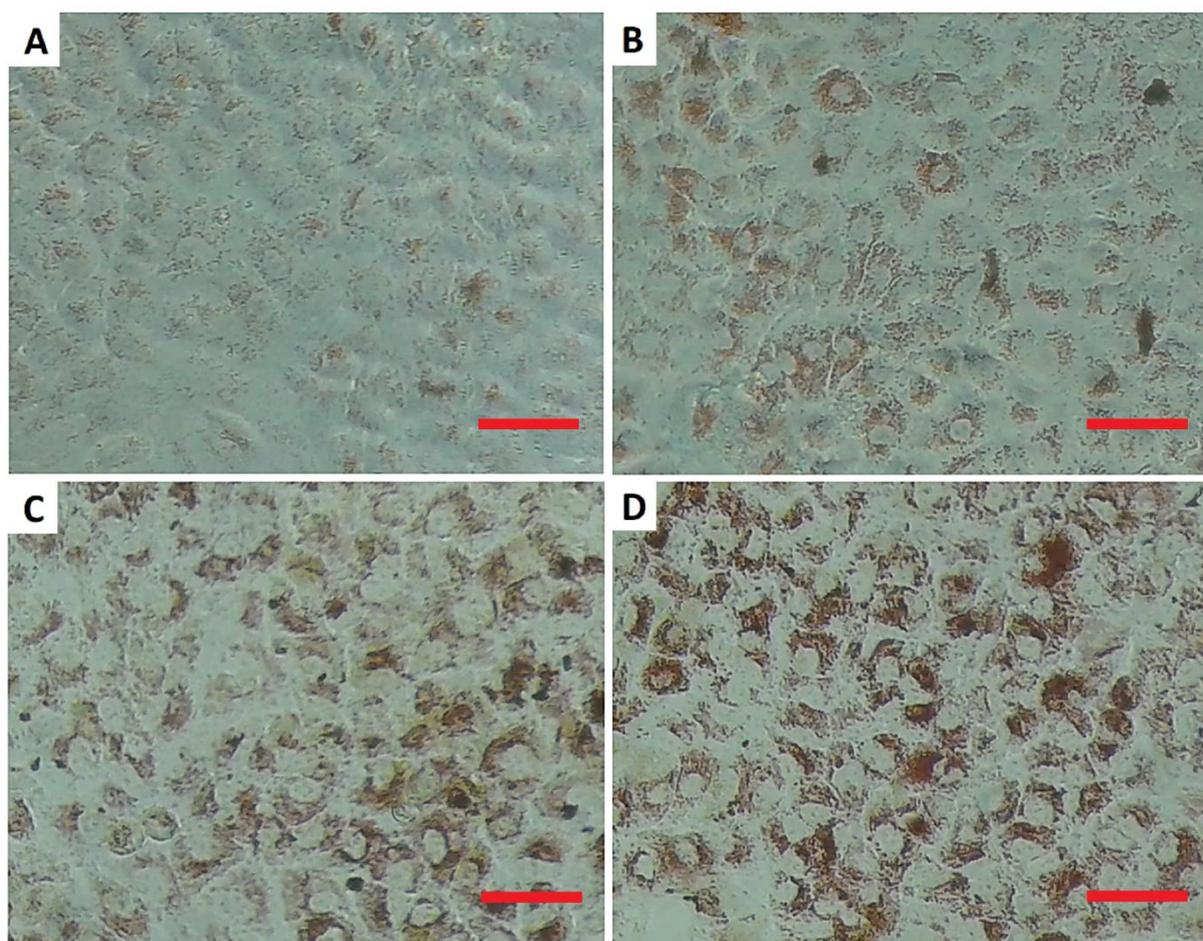
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**Figure S1.** Fluorescence images of A549 cells stained by the LipidTOX dye after a 48-hour incubation. (A) Untreated control cells. (B) Cells treated with  $20 \mu\text{g mL}^{-1}$   $\gamma\text{-Fe}_2\text{O}_3\text{+SiO}_2\text{-COOH}$ . (C) Cells treated with  $20 \mu\text{g mL}^{-1}$   $\gamma\text{-Fe}_2\text{O}_3\text{+SiO}_2\text{-NH}_2$ . (D) Cells treated with  $20 \mu\text{g mL}^{-1}$   $\gamma\text{-Fe}_2\text{O}_3\text{+SiO}_2$ . Green fluorescence represents phospholipid rich organelles. Blue fluorescence represents cell nuclei. Scale bar =  $50 \mu\text{m}$ .



**Figure S2.** Phase contrast images of A549 cells stained by neutral red dye after a 48-hour incubation. (A) Untreated control cells. (B) Cells treated with 20  $\mu\text{g mL}^{-1}$   $\gamma\text{-Fe}_2\text{O}_3\text{+SiO}_2\text{-COOH}$ . (C) Cells treated with 20  $\mu\text{g mL}^{-1}$   $\gamma\text{-Fe}_2\text{O}_3\text{+SiO}_2\text{-NH}_2$ . (D) Cells treated with 20  $\mu\text{g mL}^{-1}$   $\gamma\text{-Fe}_2\text{O}_3\text{+SiO}_2$ . Unstained nuclei are surrounded by acid organelles stained red. Scale bar = 50  $\mu\text{m}$ .