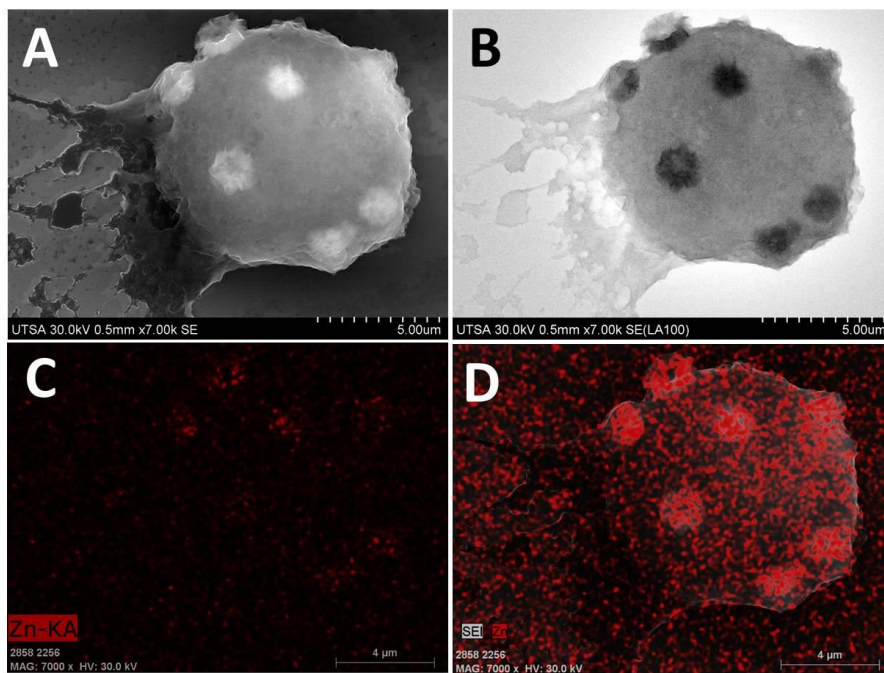
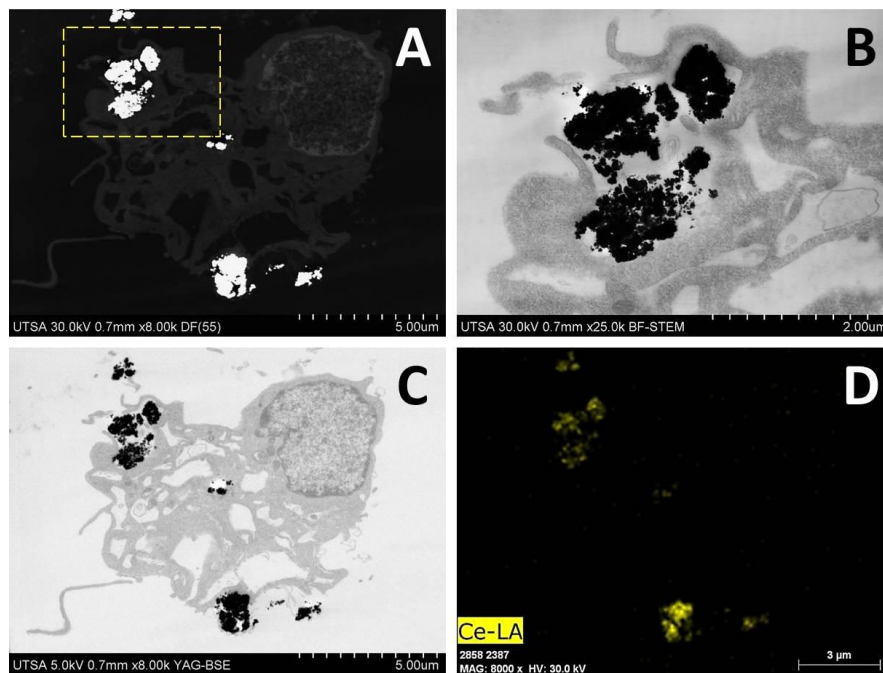


### Supplementary Information.

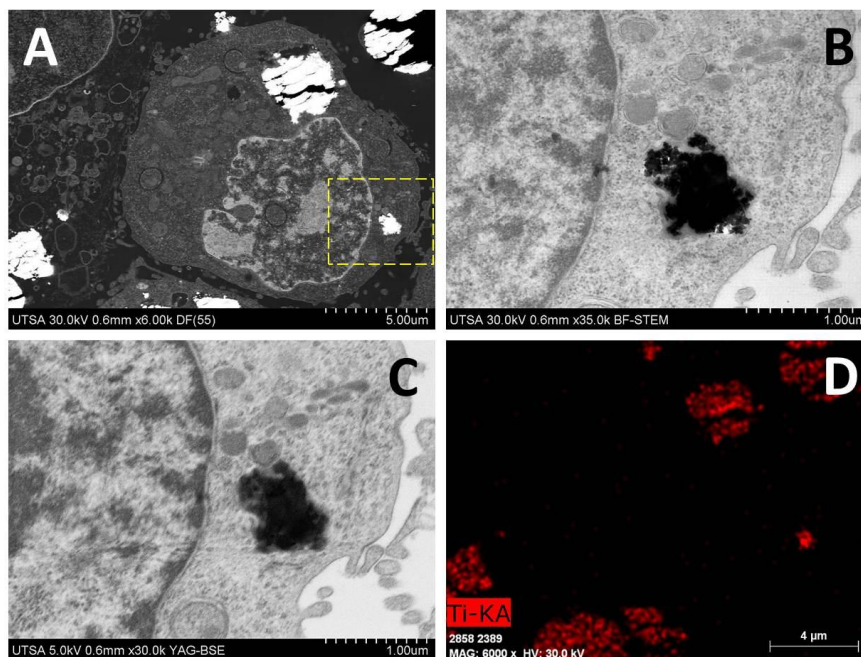
**Fig. S1. FE-SEM imaging of complete cells dosed with ZnO nanoparticles. (A) SE imaging. (B) LABE Imaging. (C) EDX mapping of Zn-KA. (D) Merge.**



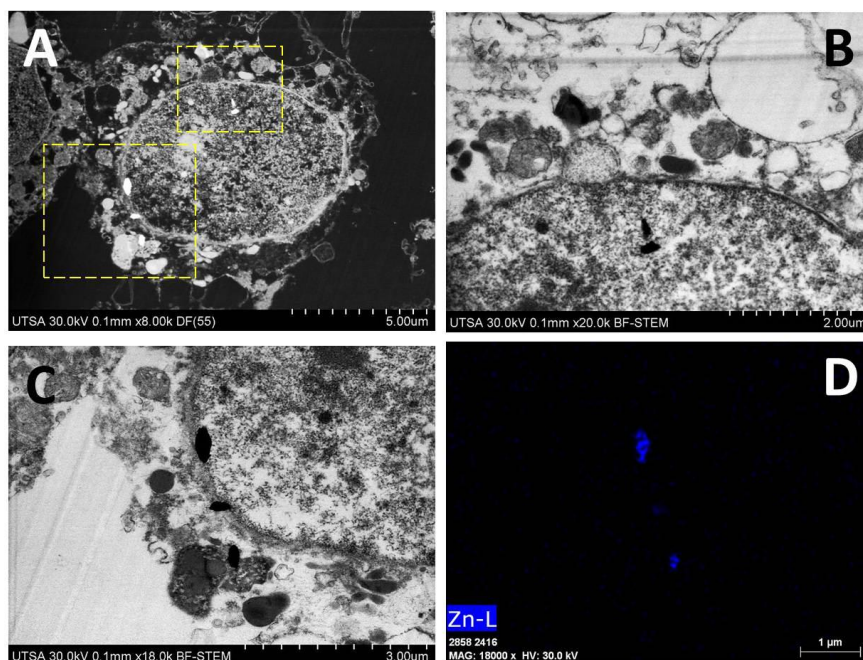
**Fig. S2. Ultrastructural location of CeO<sub>2</sub> nanoparticles into macrophage cells.** (A) DF-STEM imaging. (B) BF-STEM Imaging. (C) YAG-BSE Imaging. (D) EDX mapping of Ce-LA.



**Fig. S3. Ultrastructural location of TiO<sub>2</sub> nanoparticles into macrophage cells.** (A) DF-STEM imaging. (B) BF-STEM Imaging. (C) YAG-BSE Imaging. (D) EDX mapping of Ti-KA.



**Fig. S4. Ultrastructural location of ZnO nanoparticles into macrophage cells. (A) DF-STEM imaging. (B) BF-STEM region 1. (C) BF-STEM region 2. (D) EDX mapping of Zn-KA.**



**Video S1. Stereoimaging of complete macrophage dosed with CeO<sub>2</sub> nanoparticles. SE imaging at 30 kV.**

**Video S2. Stereoimaging of complete macrophage dosed with CeO<sub>2</sub> nanoparticles. LAFM Imaging at 30 kV.**

**Video S3. Stereoimaging of complete macrophage dosed with TiO<sub>2</sub> nanoparticles. SE imaging at 30 kV.**

**Video S4. Stereoimaging of complete macrophage dosed with TiO<sub>2</sub> nanoparticles. LAFM Imaging at 30 kV.**

**Video S5. Stereoimaging of complete macrophage dosed with ZnO nanoparticles. SE imaging at 30 kV.**

**Video S6. Stereoimaging of complete macrophage dosed with ZnO nanoparticles. LAFM Imaging at 30 kV.**