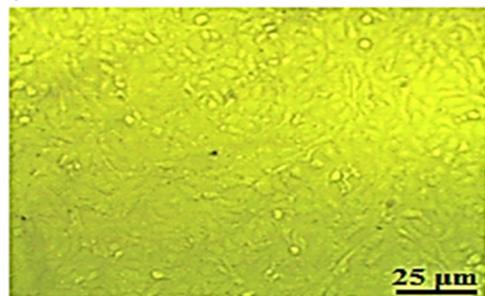
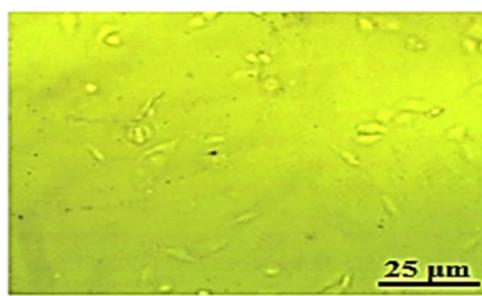


# I) MDA-MB-231

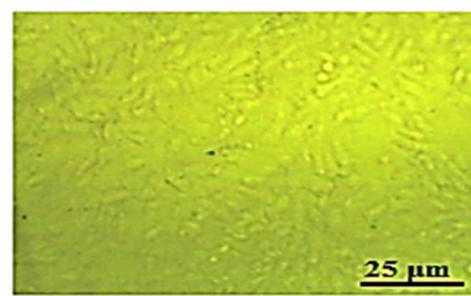
## a) Eb



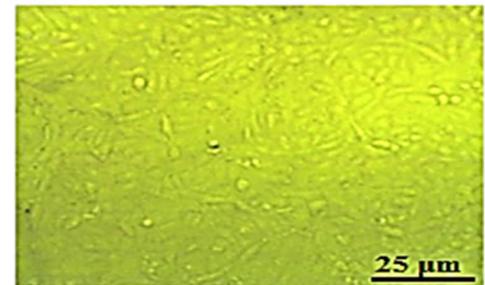
Control



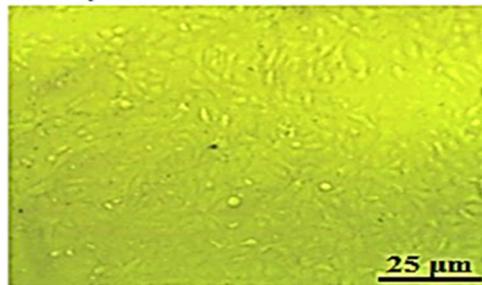
Eb 100μM



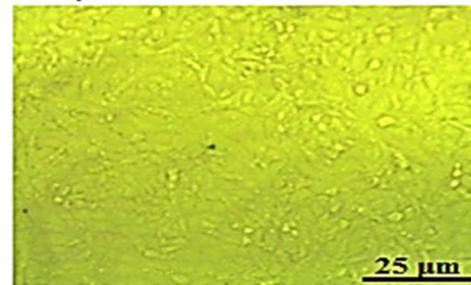
Eb 50μM



Eb 25μM

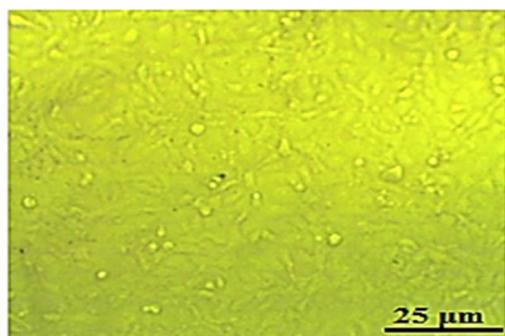


Eb 12.5μM

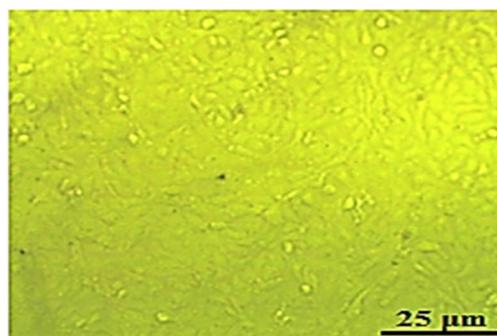


Eb 1μM

## b) $ZnCe_xFe_{2-x}O_4$

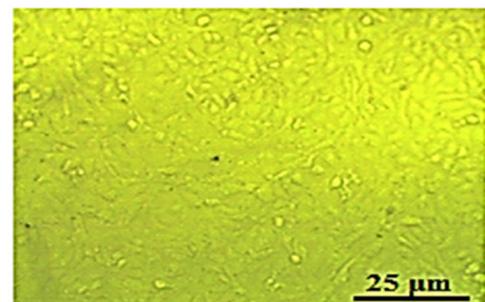


ZnFe<sub>2</sub>O<sub>4</sub> 10μM

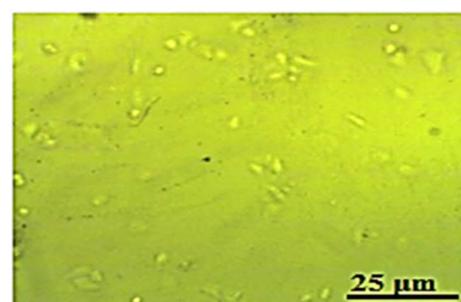


ZnFe<sub>2</sub>O<sub>4</sub> 100 μM

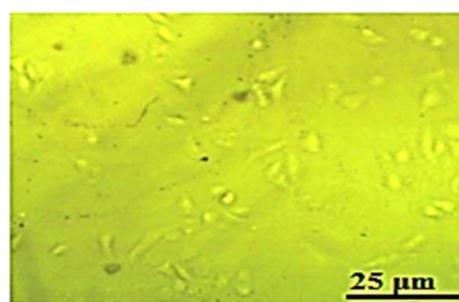
## c) Eb-ZnFe<sub>2</sub>O<sub>4</sub>



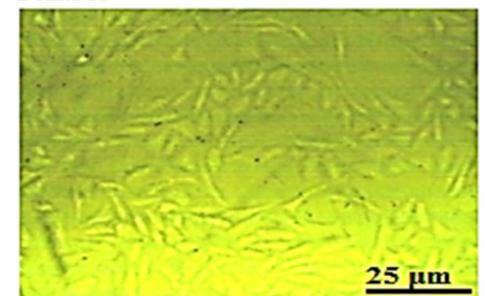
Control



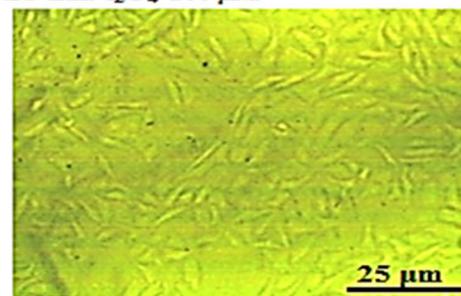
Eb-ZnFe<sub>2</sub>O<sub>4</sub> 100 μM



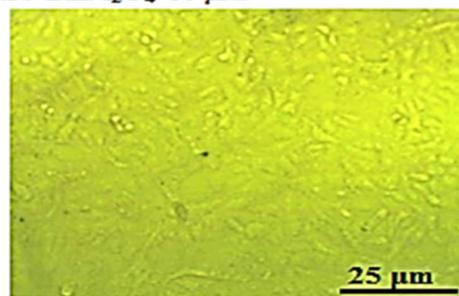
Eb-ZnFe<sub>2</sub>O<sub>4</sub> 50 μM



Eb-ZnFe<sub>2</sub>O<sub>4</sub> 25 μM



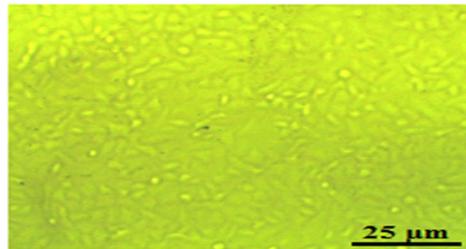
Eb-ZnFe<sub>2</sub>O<sub>4</sub> 12.5 μM



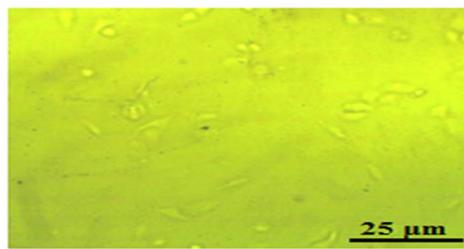
Eb-ZnFe<sub>2</sub>O<sub>4</sub> 1 μM

## II) HT-29 cells

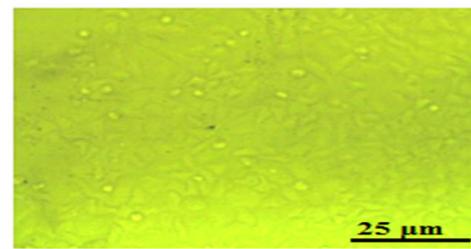
### a) Eb



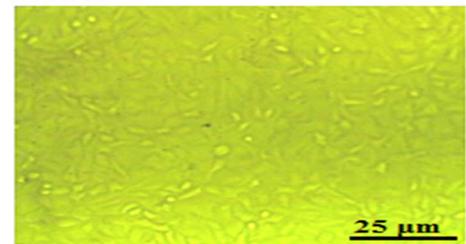
Control



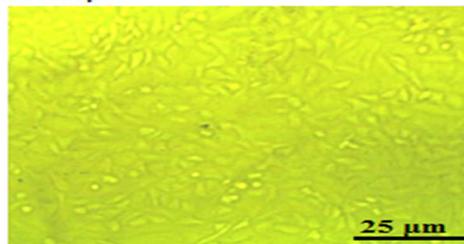
Eb 100μM



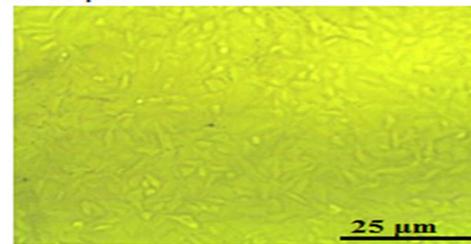
Eb 50 μM



Eb 25μM

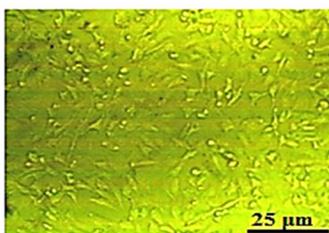


Eb 12.5μM

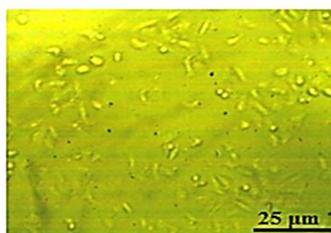


Eb 1μM

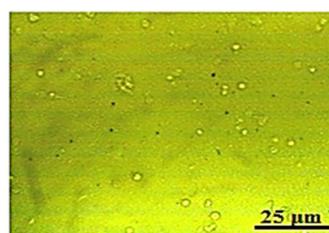
### b) $\text{ZnCe}_x\text{Fe}_{2-x}\text{O}_4$



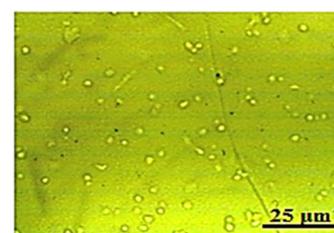
$\text{ZnFe}_2\text{O}_4$  10 μM



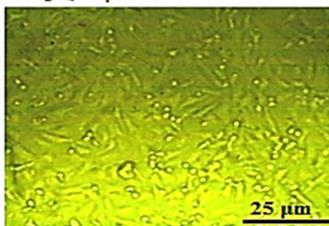
$\text{ZnCe}_{0.02}\text{Fe}_{1.98}\text{O}_4$  10 μM



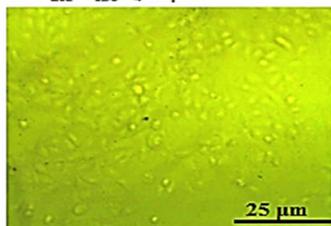
$\text{ZnFe}_2\text{O}_4$  100 μM



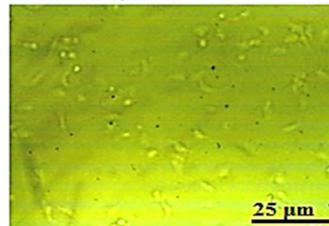
$\text{ZnCe}_{0.02}\text{Fe}_{1.98}\text{O}_4$  100 μM



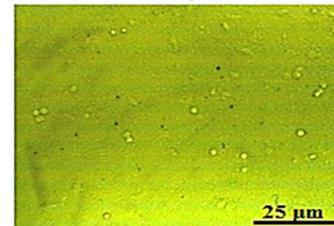
$\text{ZnCe}_{0.04}\text{Fe}_{1.96}\text{O}_4$  10 μM



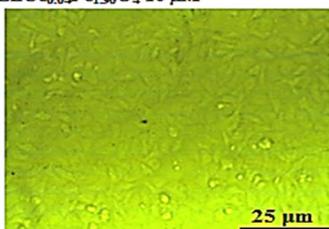
$\text{ZnCe}_{0.06}\text{Fe}_{1.94}\text{O}_4$  10 μM



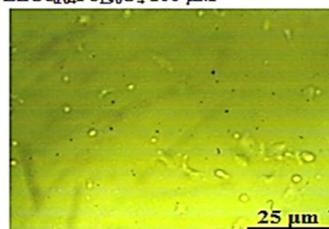
$\text{ZnCe}_{0.04}\text{Fe}_{1.96}\text{O}_4$  100 μM



$\text{ZnCe}_{0.06}\text{Fe}_{1.94}\text{O}_4$  100 μM

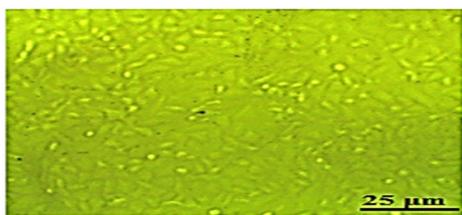


$\text{ZnCe}_{0.08}\text{Fe}_{1.92}\text{O}_4$  10 μM

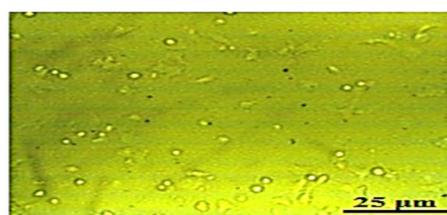


$\text{ZnCe}_{0.08}\text{Fe}_{1.92}\text{O}_4$  100 μM

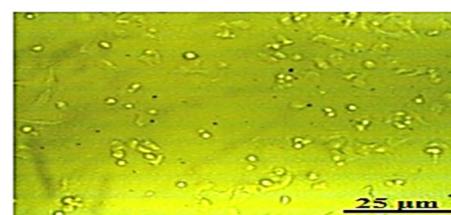
### c) Eb- $\text{ZnCe}_{0.06}\text{Fe}_{1.94}\text{O}_4$



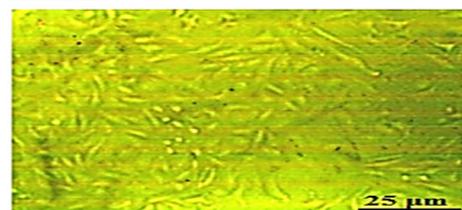
Control



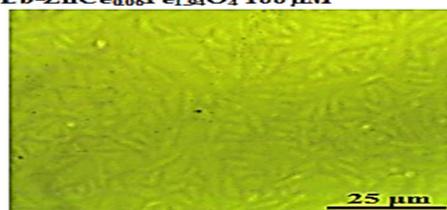
Eb- $\text{ZnCe}_{0.06}\text{Fe}_{1.94}\text{O}_4$  100 μM



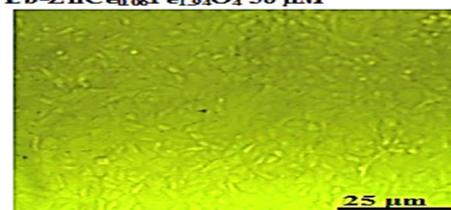
Eb- $\text{ZnCe}_{0.06}\text{Fe}_{1.94}\text{O}_4$  50 μM



Eb- $\text{ZnCe}_{0.06}\text{Fe}_{1.94}\text{O}_4$  25 μM

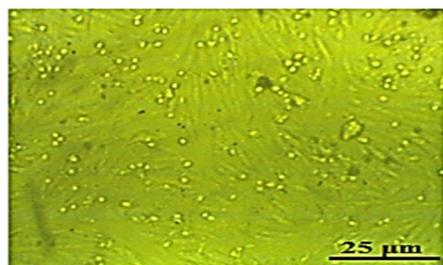


Eb- $\text{ZnCe}_{0.06}\text{Fe}_{1.94}\text{O}_4$  12.5 μM

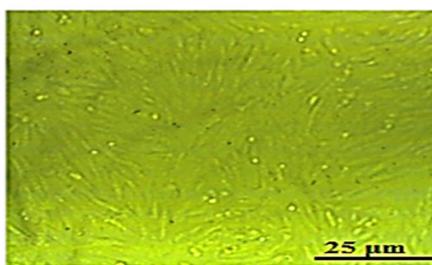


Eb- $\text{ZnCe}_{0.06}\text{Fe}_{1.94}\text{O}_4$  1μM

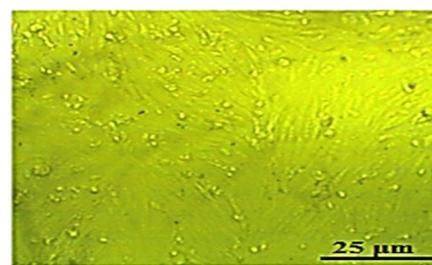
### III) Normal Vero cells



Control Vero cells



Eb-ZnFe<sub>2</sub>O<sub>4</sub> 100μM



Eb-ZnCe<sub>0.06</sub>Fe<sub>1.94</sub>O<sub>4</sub> 100μM

**Supplement Figure S1:** Inverted light microscopy images of cytotoxicity screening of the various concentrations of Ebselen (Eb) and/or ZnCe<sub>x</sub>Fe<sub>2</sub>-XO<sub>4</sub> nanoparticles. I) MDA-MB-231 cells were treated as follows: a) Eb, b) ZnCe<sub>x</sub>Fe<sub>2</sub>-XO<sub>4</sub> (here we show only the images of the low and high concentrations of the effective nanoparticles, due to the other nanoparticles were not effective with no apparent cytotoxicity and were quietly as same as the control) and c) Eb-ZnFe<sub>2</sub>O<sub>4</sub>. II) HT-29 cells were treated as follows: a) Eb, b) ZnCe<sub>x</sub>Fe<sub>2</sub>-XO<sub>4</sub> and c) Eb-ZnCe<sub>0.06</sub>Fe<sub>1.94</sub>O<sub>4</sub>. III) Normal Vero cells treated by Eb-ZnFe<sub>2</sub>O<sub>4</sub> and Eb-ZnCe<sub>0.06</sub>Fe<sub>1.94</sub>O<sub>4</sub> at concentration of 100 μM.