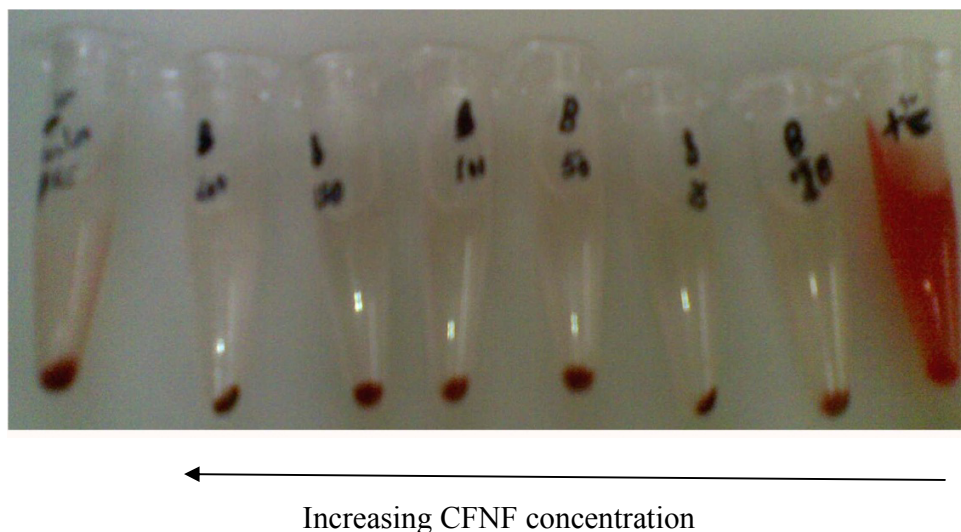
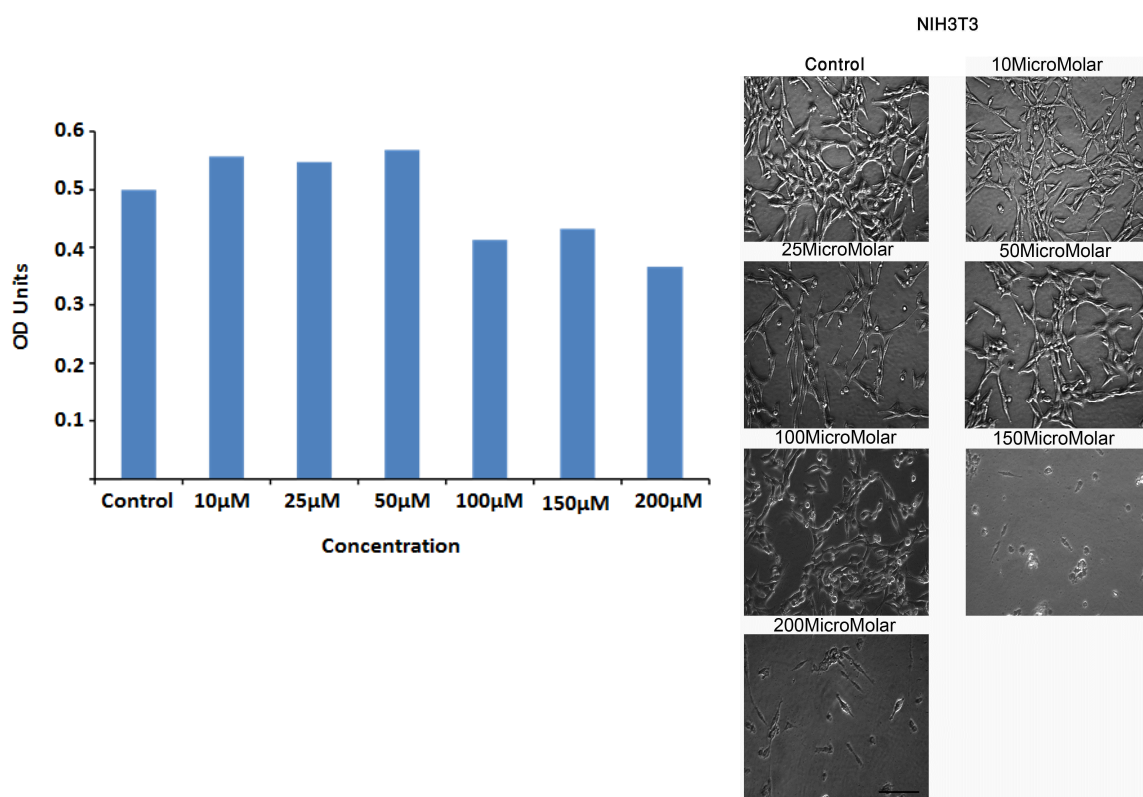


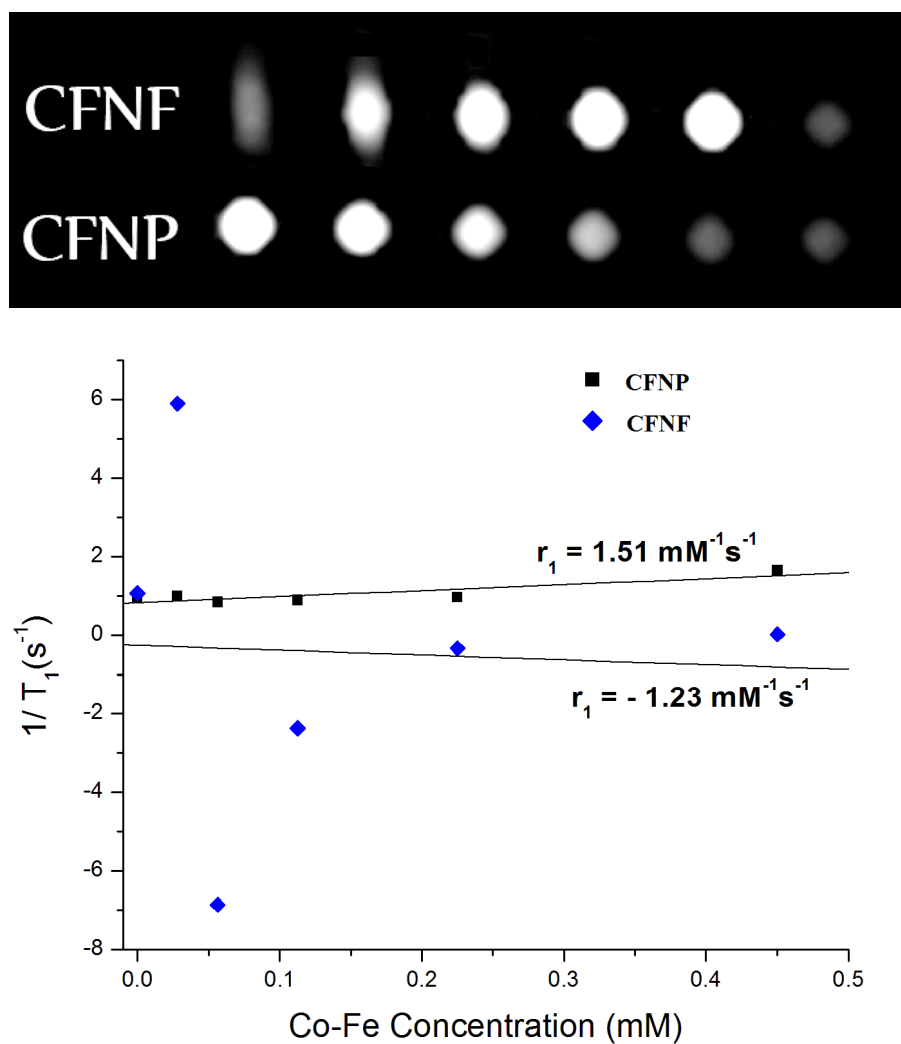
ASSOCIATED CONTENT



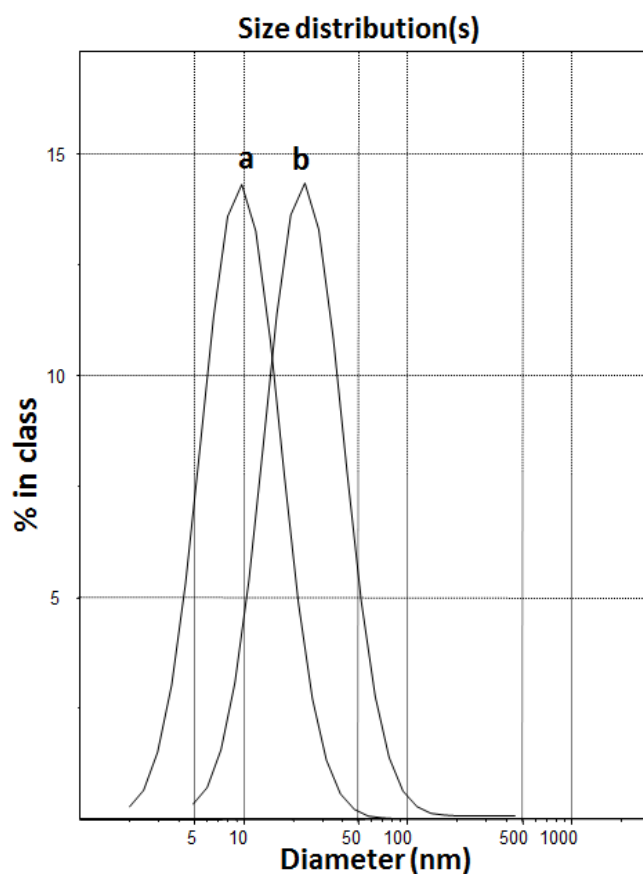
Supporting Information Figure 1: The percentage hemolysis of HRBC by CFNF at different concentrations. The mixtures were centrifuged to visually observe the presence of haemoglobin in the supernatant. First sample is the negative control and the last sample the positive control.



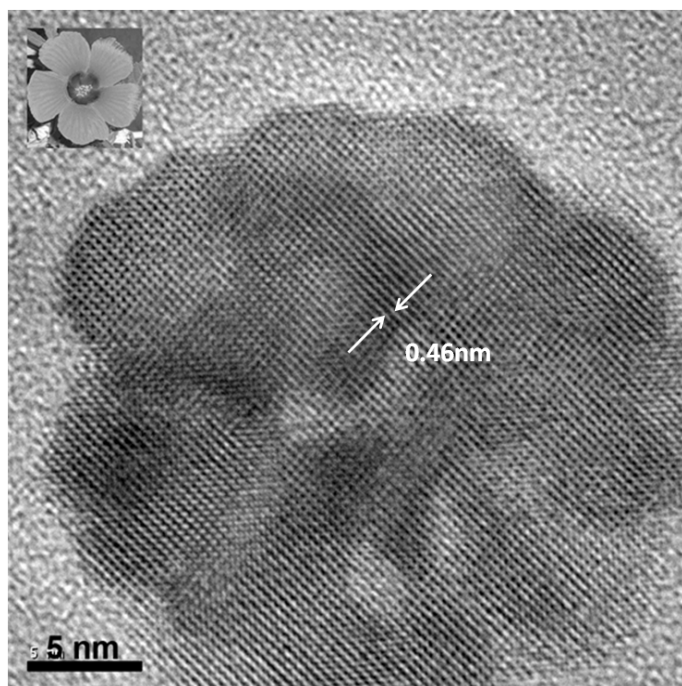
Supporting Information Figure 2: Cellular toxicity test by using NIH/3T3 cell lines, showing that cobalt ferrite nanoflowers are consistently non-toxic up to 50 μM, for a period of 24 h and morphological characteristics of NIH/3T3 cells visualized with a phase contrast microscope, after treatment with varying concentration of CFNF. Changes in cell morphology and number have been observed from a CFNF concentration of 150 μM after 24h of treatment. All micrographs have been obtained at same magnification.



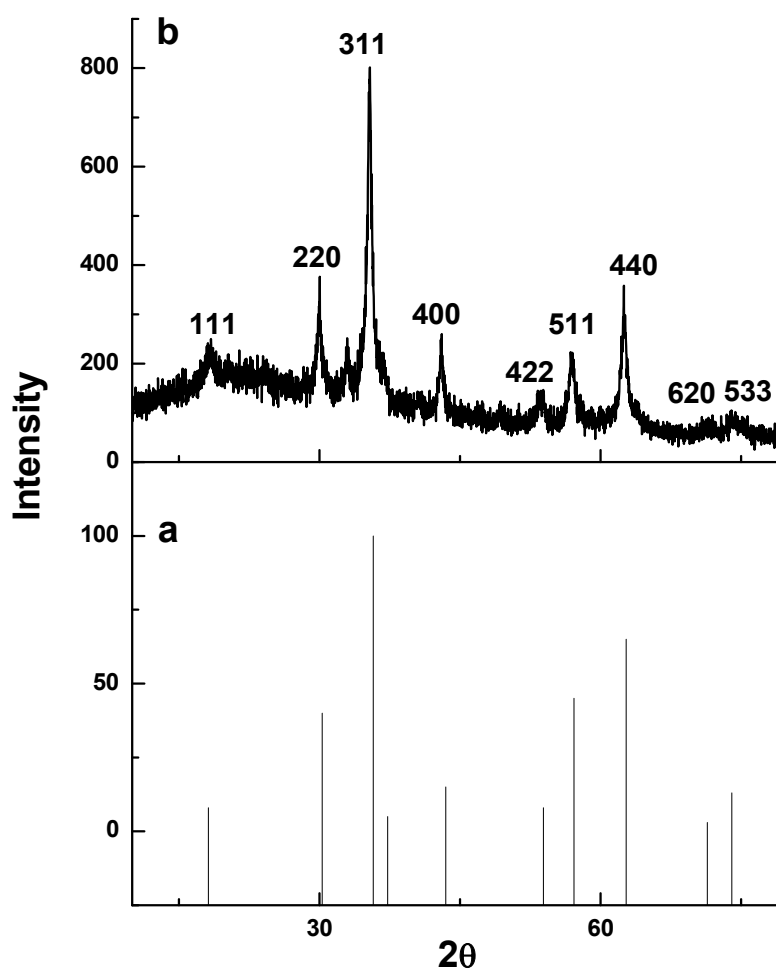
Supporting Information Figure 3. Cobalt ferrite nanoflowers (CFNF) and cobalt ferrite nanoparticles (CFNP) were compared in terms of T1 MRI contrast effect. T1 weighted MR images of CFNF and CFNP suspended in water at different concentrations (0.5 – 0.03125 mM) (top image) and plot of T₁ relaxation rate R₁ (1/T₁) against CFNP/CFNF concentration (bottom graph).



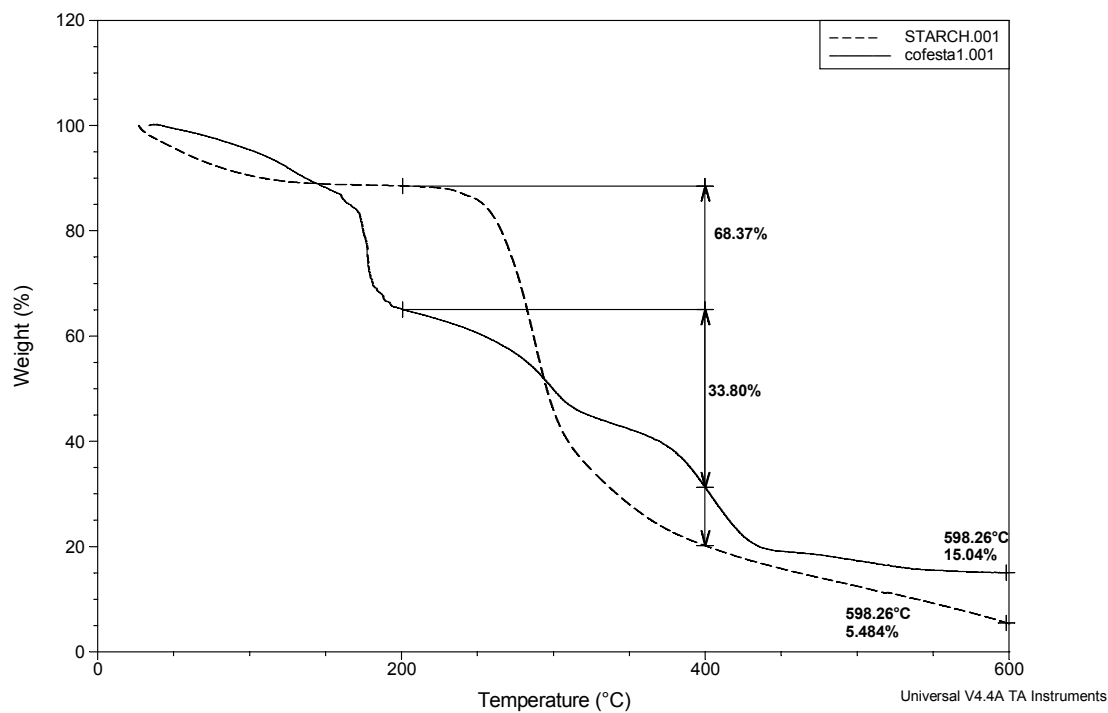
Supporting Information Figure 4. CONTIN analysis of particle size distribution of CFNF (intensity of light basis) after a) 4hours and b) 8 hours of refluxing time



Supporting Information Figure 5. Representative HRTEM image of CF particles. The dark contrast areas are CF clusters and white areas are the pores within the assembly. A d-spacing of 0.46 nm observed matches with that of standard CF.



Supporting Information Figure 6. X-ray diffraction pattern of a) standard JCPDS CF and b) CF as obtained in this work.



Supporting Information Figure 7. Thermogram of starch and CF NF, indicating the phase changes.