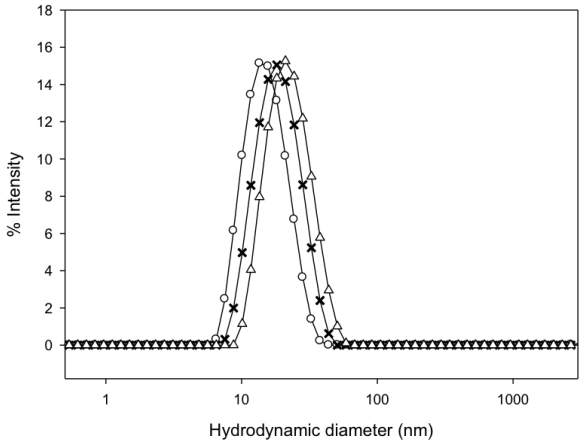
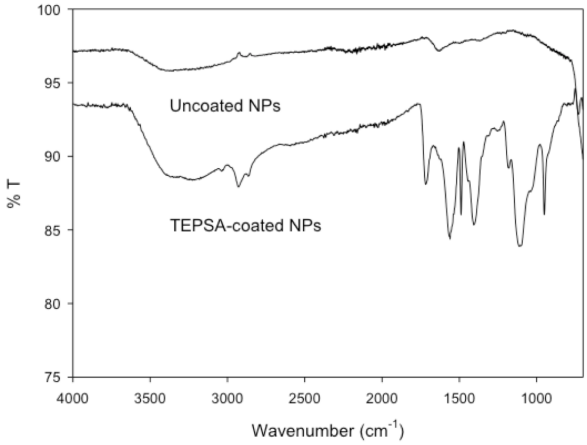


Fig. S1 Size distribution in intensity as measured by PCS of uncoated NPs (O), TEPSA-coated NPs (x) and TEPSA-Rh-PEG NPs (Δ).



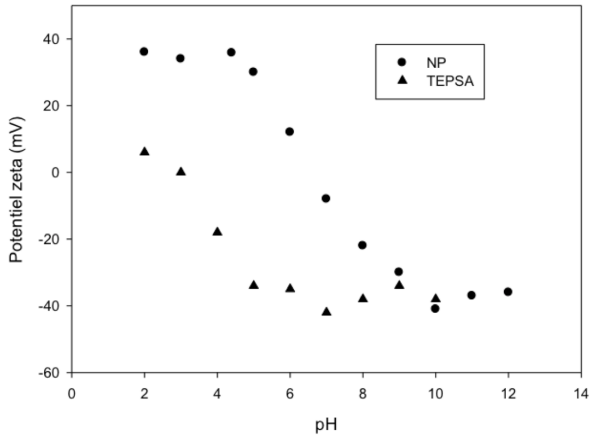


Fig. S2 (a) Comparison of the infrared spectra of native NPs and TEPSA-coated NPs (b) Evolution of the zeta potential with respect to pH for native particles (filled triangle) and TEPSA-coated NPs (filled circles).

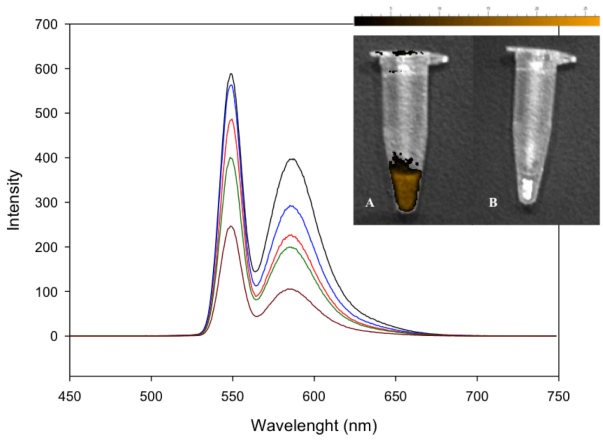


Fig. S3 Emission spectra of diluted samples of TEPSA-Rh-PEG NPs. Concentrations in iron ranged from 0.4 mM to 0.1 mM ($\lambda_{exc.}$ = 550 nm; $\lambda_{em.}$ = 586 nm). A comparison of TEPSA-Rh-PEG NPs (A) and TEPSA-coated NPs (B) dispersions submitted to an excitation wavelength (540 nm). Emission signal has been recorded at 615 nm.

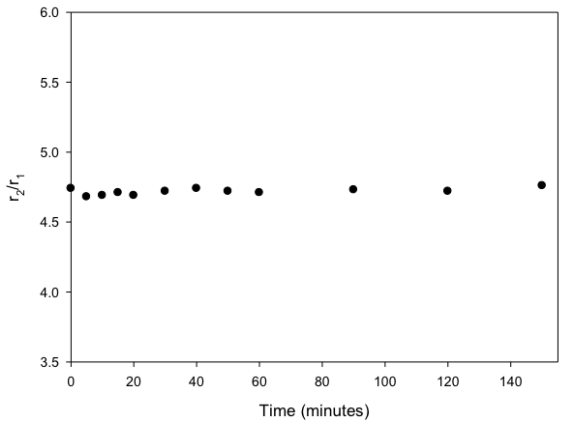


Fig. S4 Evolution of the relativities ratio at 1.41T and 37°C of TEPSA-Rh-PEG NPs in physiological serum.

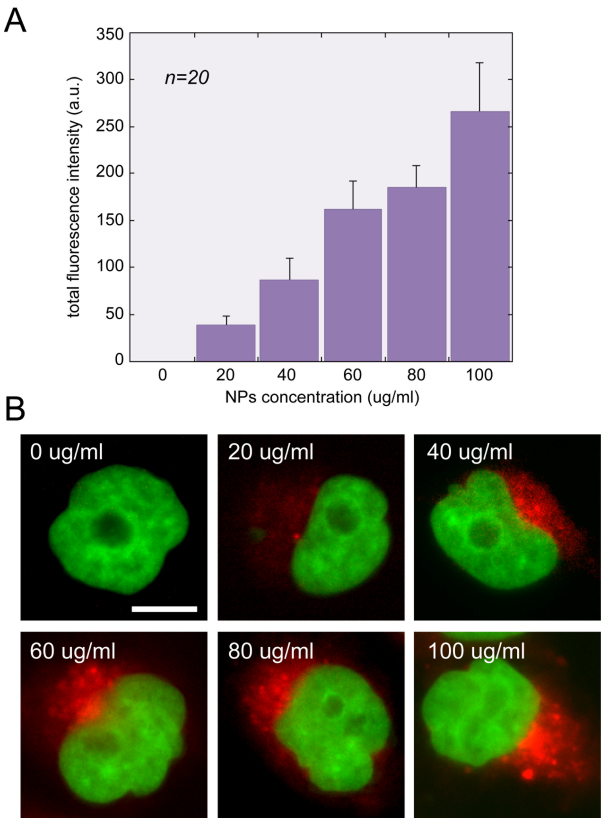


Fig. S5 Effect of NP concentration on natural cellular upake. HeLa cells were incubated with a range of concentration of red fluorescent NPs, visualized by epifluorescence microscopy, and the average total intensity of intracellular red fluorescence established in 20 cells at each concentration (panel A). Representative cells are shown in panel B. In green, the nucleus revealed by a green fluorescent construct of histone H2B; in red the NPs.

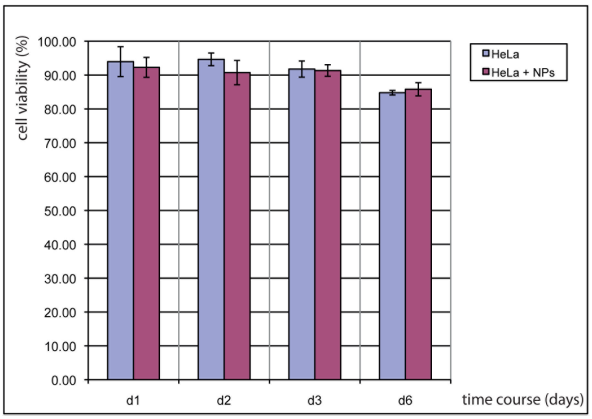


Fig. S6 Viability of cultured HeLa cells in presence and in absence of NPs.