

Supplementary Materials

Figure S1: Dynamic light scattering analyses for different curNPs formulations.

Dynamic light scattering measurements for different curNPs formulations: curNP_a (blue), curNP_b (orange), curNP_c (grey), curNP_d (yellow) and curNP_e (turquoise). DMSO/water volume ratios: 1:79 v/v (CurNP_a), 1:158 v/v (CurNP_b), 1:316 v/v (CurNP_c), 1:625 v/v (CurNP_d), and 1:1280 v/v (CurNP_e).

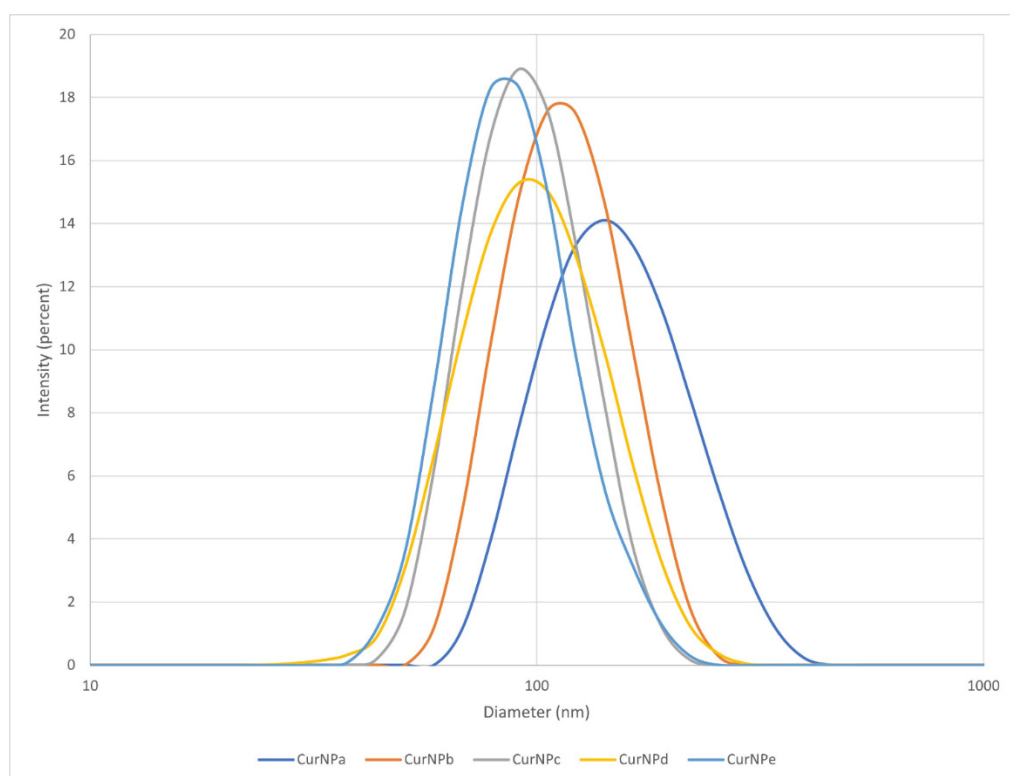


Figure S2: Curcumin and curNPs stability in aqueous media

Absorbance (a) and fluorescence (b) spectra (Ex 420 nm – gain 100) of curcumin solutions in DMSO (blank pure DMSO subtracted, Conc [uM]). Absorbance at 430 nm (c) and emitted Fluorescence at 540 nm (d) at t₀ and t = 48 h of curcumin solutions in DMSO at different time points (t₀ = 1 h, t₁ = 18 h, t₂ = 24, t₃ = 42, t₄ = 48 h from sample preparation). Absorbance of curcumin solutions in DMSO is stable over time, while emitted fluorescence decreases. Effect of FBS on curcumin solubility evaluated by Absorbance (430 nm) (e) and Fluorescence (f) (540 nm (ex 420 nm, Gain 100)). Curcumin solutions in PBS and in DMSO were analysed in panel (g) and (h), respectively, with different percentage of FBS, following 30 min and 20h of incubation at 37°C. Different colour and discolouring over time (20 h) were reported in an aqueous medium. (i) Percentage of fluorescence for a dispersion 20 µM CuNPs in PBS, PBS with 1%, 2% and 10% FBS.

