

Supplementary data

Title: Multi polysaccharide based stimuli responsive polymeric network for the in vitro release of 5-fluorouracil and levamisole hydrochloride

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Table S1. Comparison of LH- P-g-(5-FU-NC-CO-CT)Alg with other polysaccharide based 5-FU delivery systems

Sample	Particle size (nm)	Zeta potential (mV)	Cell viability of 5-FU loaded samples	References
Alg-CT / montmorillonite nanocomposite	191±6 to 255±9	+55.0±0.9 to +59.0±0.9	A-172 IC ₅₀ = 2.5 mg/mL	[41]
Cationic cyclodextrin / Alg-CT nanoflowers	298.4 ± 1.44 to 677 ± 1.12	+8.07mV	L929 cells more than 90.0% viable cells at (20–100 µg/mL)	[42]
CT –g-acrylic acid-co- methylemethacrylate-co-N- isopropylacrylamide	140 to 190	+17.8 to +35.1	-	[43]
CT/silver/multiwalled carbon nanotubes	-	-	MCF-7 cells IC ₅₀ = 50 µg/ml	[44]

Aminated-glycidylmethacrylate grafted Cellulose-g- polymethacrylic acid-succinyl cyclodextrin	-	-	MCF-7 cells IC ₅₀ ~50 µg/ml	[45]
Na-Alg-g-poly(N- isopropylacrylamide) and - cyclodextrin	102.6 to 150.5	-25.5 to -29.6	HeLa cells IC ₅₀ ~0.2 mg/ml -	[46]
Hyaluronic acid-modified-cellulose acetate phthalate nanoparticles	90 ± 0.59	-12.4	A-549 cells IC ₅₀ 40-60 µg/ml	[47]
methoxy polyethylene glycol grafted CT	(336.0± 14.5)	+4.3±2.6	-	[48]
calcium alginate (CA)- carboxymethyl cellulose (CMC) beads	738.51 to 918.92	-	HT 29 cells IC ₅₀ ~ 10 mg/mL	[49]
P-g-(NC-CO-CT)Alg	309	-36.1	HT29 cells IC₅₀ = 43.35±0.8 µg/mL	Present study

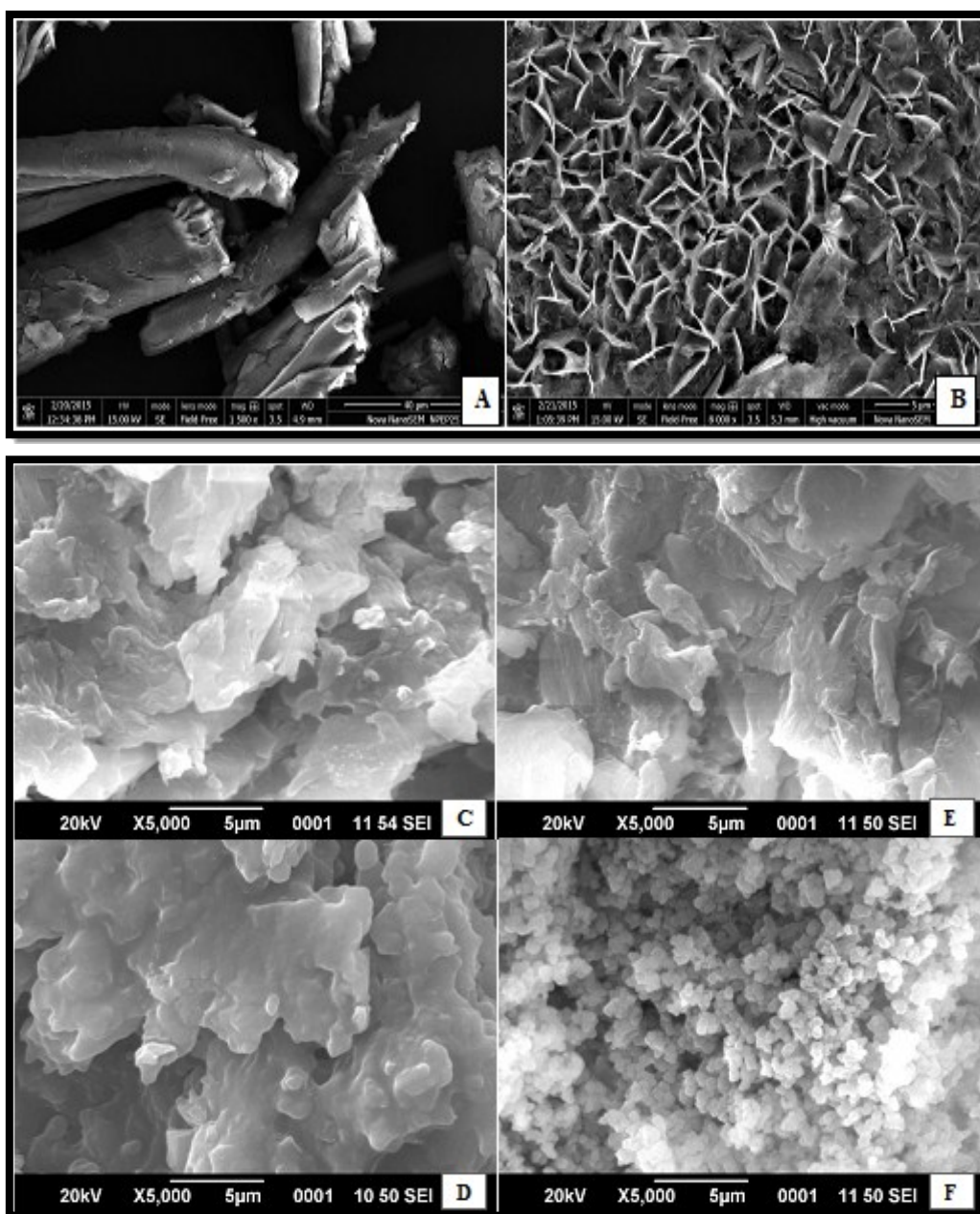


Fig. S1. SEM images of (A) Cell (B) NC (C) NC-COOH (D) NC-CO-CT (E) (NC-CO-CT)Alg and (F) P-g-(NC-CO-CT)Alg

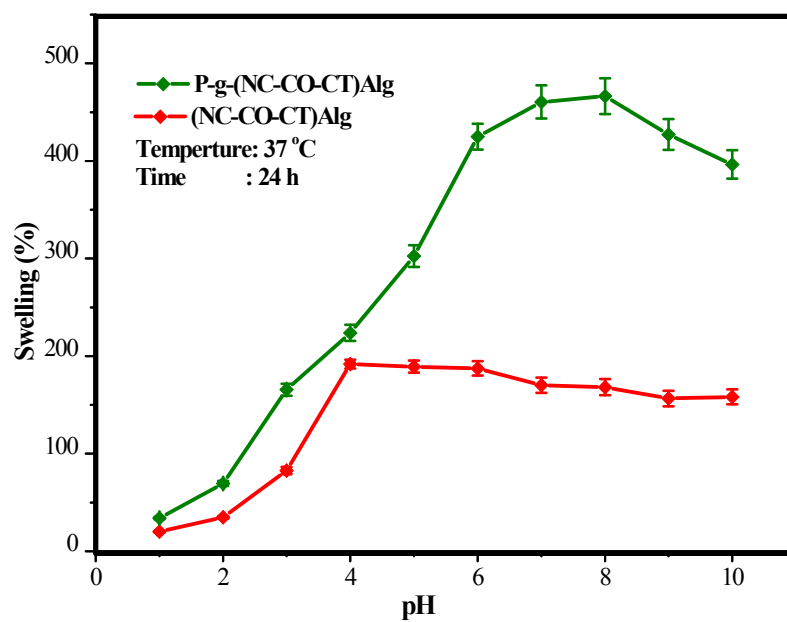


Fig. S2. Swelling of (NC-CO-CT)Alg and P-g-(NC-CO-CT)Alg as a function of pH.

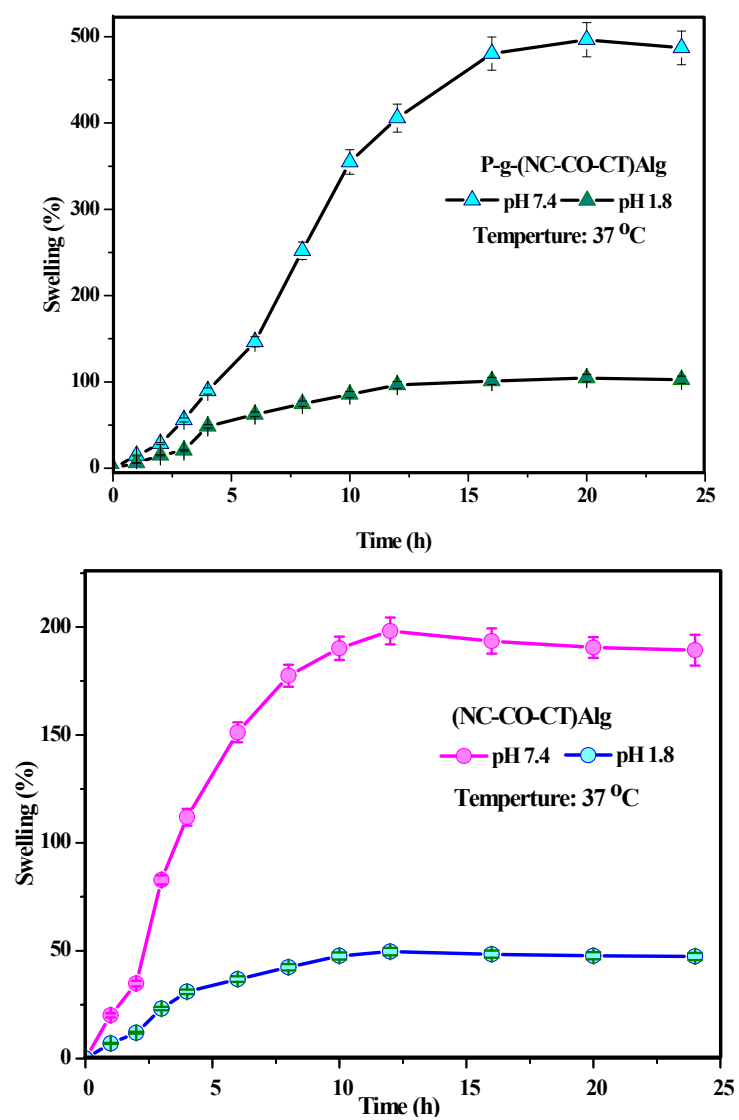


Fig. S3. Swelling of (NC-CO-CT)Alg and P-g-(NC-CO-CT)Alg as a function of time.

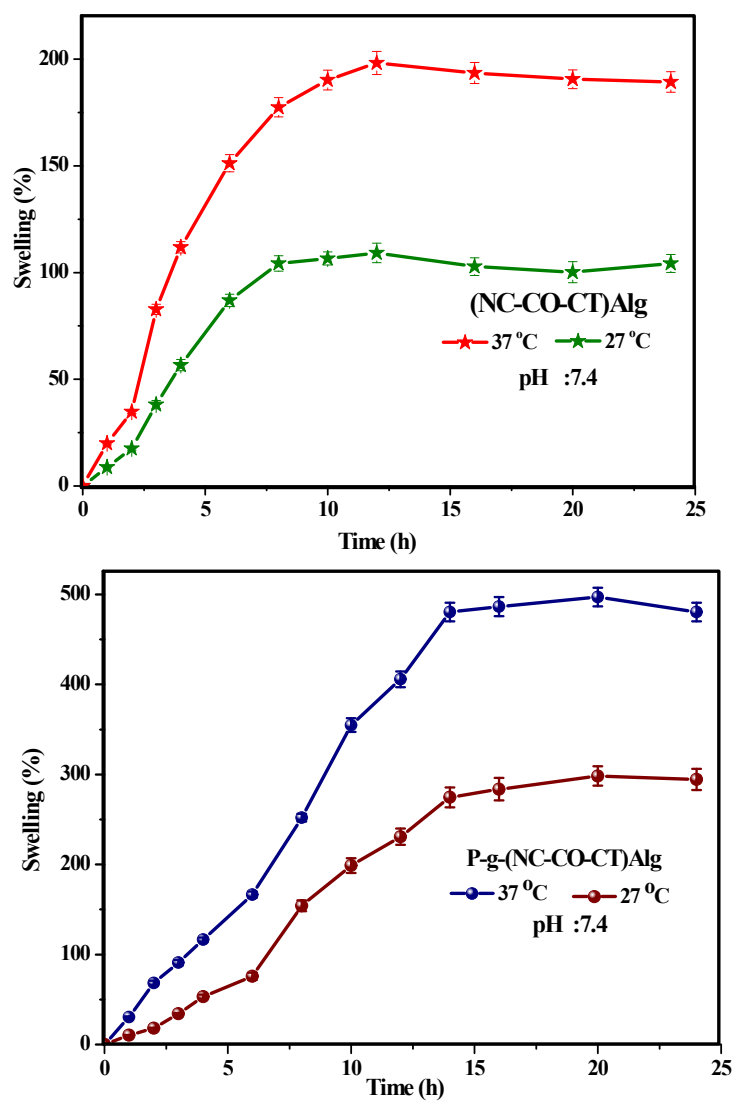


Fig. S4. Swelling of (NC-CO-CT)Alg and P-g-(NC-CO-CT)Alg as a function of temperature.

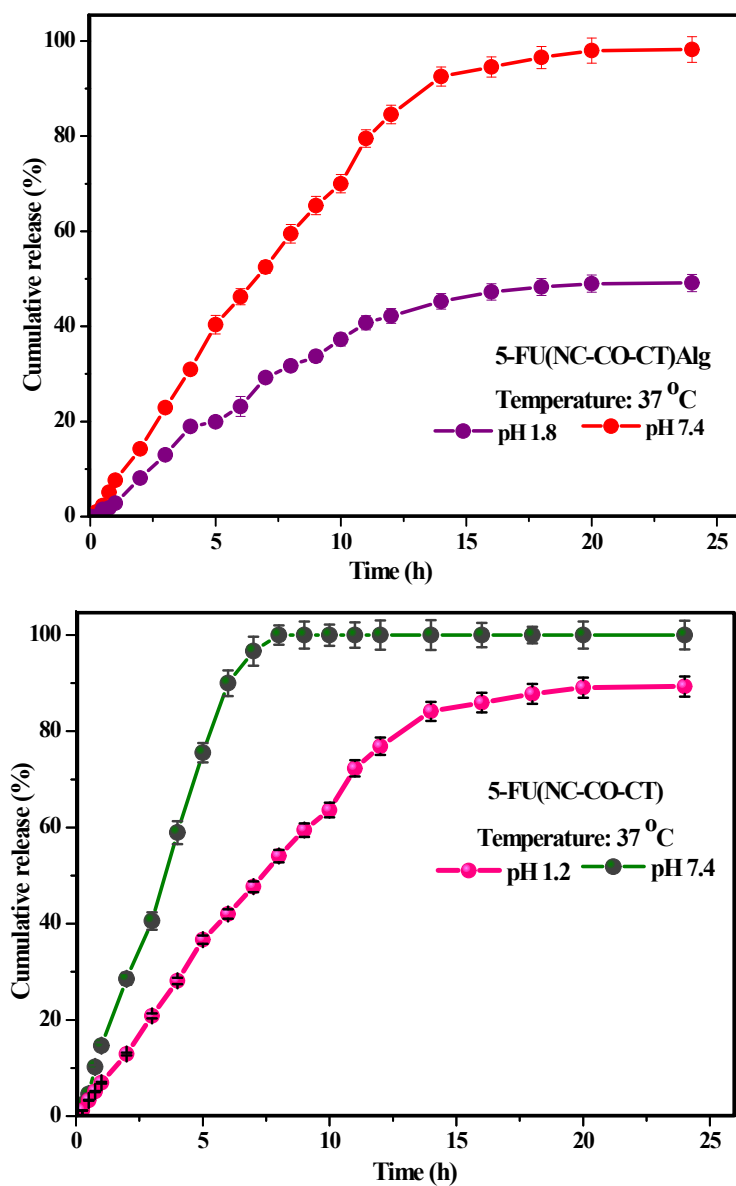


Fig. S5. Cumulative release (%) of 5-FU from NC-CO-CT and (NC-CO-CT)Alg.

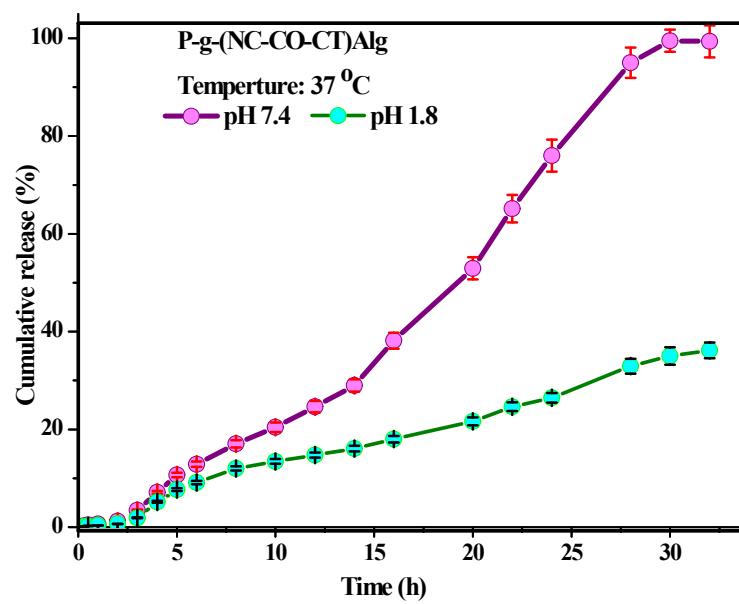


Fig. S6. Cumulative release (%) of 5-FU from P-g-(NC-CO-CT)Alg.

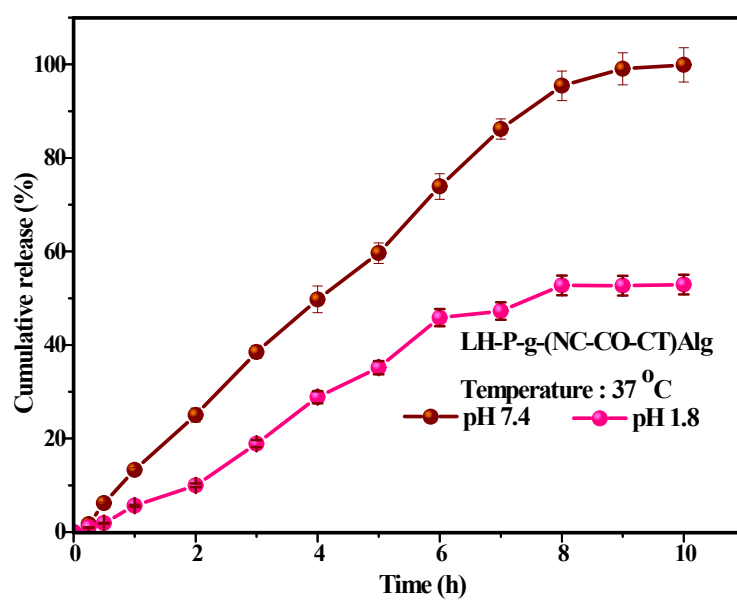


Fig. S7. Cumulative release (%) of LH from P-g-(NC-CO-CT)Alg.