An oral drug delivery system with programmed drug release and imaging properties for orthotopic colon cancer therapy

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Fig. S1 5-FU release profiles in vitro. (A) Drug release behavior from preparation at different pH. (B) Release behavior of drug from Gd-MHAp/5-FU/Gefitinib and Gd-MHAp/5-FU/Gefitinib/CS/PAA incubated in a buffer with gradually changed pH over 24 h.
Fig. S2 Cytotoxicity. Cell viability of Gd-MHAp and Gd-MHAp/CS/PAA after 24 h treatment.

Fig. S3 Zeta potential of Gd-MHAp/5-FU/Gef and Gd-MHAp/5-FU/Gef/CS/PAA NPs.

A

Control

Gd-MHAp

Gd-MHAp/CS/PAA

B

Control

Gd-MHAp

Gd-MHAp/CS/PAA

Fig. S4 Apoptosis and cell cycle assay of HT-29 cells after incubated with different formulations for 24 h.
Fig. S5 Histologic section of colonic tumor.

Fig. S6 Histologic assessments of major organs with H&E staining: (a) saline, (b) free 5-FU + Gefitinib, (c) Gd-MHAp/5-FU/CS/PAA, (d) Gd-MHAp/Gefitinib/CS/PAA, (e) Gd-MHAp/5-FU/Gefitinib, (f) Gd-MHAp/5-FU/Gefitinib/CS/PAA.
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Table S1: Average percentage of cell-cycle distribution in each phase. (A) Control, (B) 5-FU; (C) Gef; (D) 5-FU + Gef; (E) Gd-MHAp/5-FU; (F) Gd-MHAp/Gef; (G) Gd-MHAp/5-FU/Gef. (Mean ± SD, n = 3)