

Figure S1

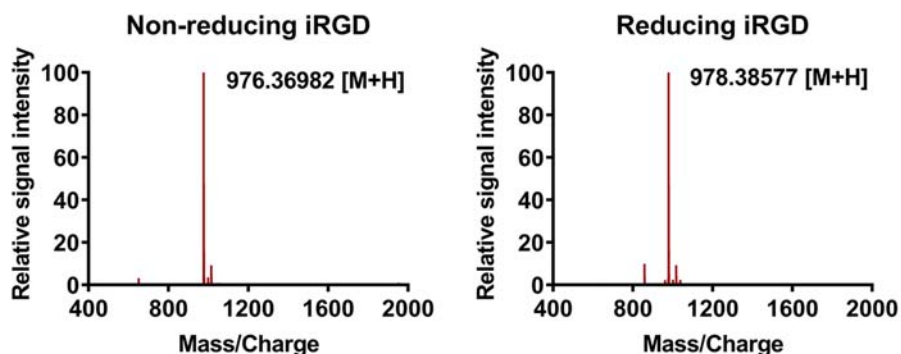


Figure S1 The mass measurement of iRGD peptide by mass spectrometry.

Notes: The accurate mass of iRGD was determined in the absence (non-reducing) or presence (reducing) of DTT by high resolution orbitrap mass spectrometry. Peptide ions were presented as singly-charged ions after deconvolution of multiple-charged mass spectra.

Abbreviations: DTT, dithiothreitol.

Figure S2

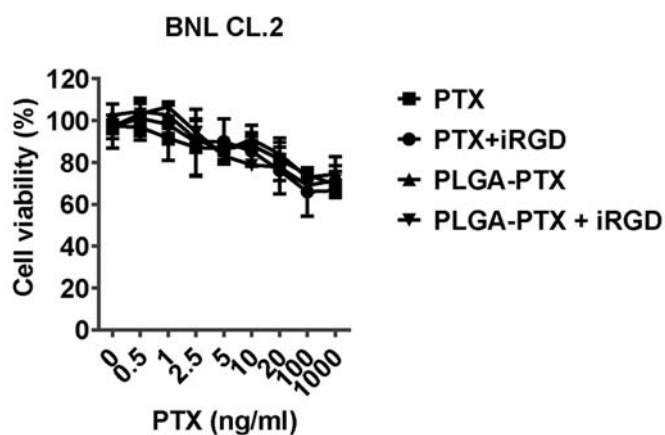


Figure S2. *In vitro* cytotoxicity of nanoparticles on normal liver cells.

Notes: Normal liver cells BNL CL.2 were treated with free PTX or encapsulated PLGA-PTX in the absence or presence of iRGD peptide for 72 h. Cell viability was determined by CCK-8 assay.

Abbreviations: PLGA, poly lactic-co-glycolic acid; PTX, paclitaxel; PLGA-PTX, paclitaxel-loaded PLGA.

Figure S3

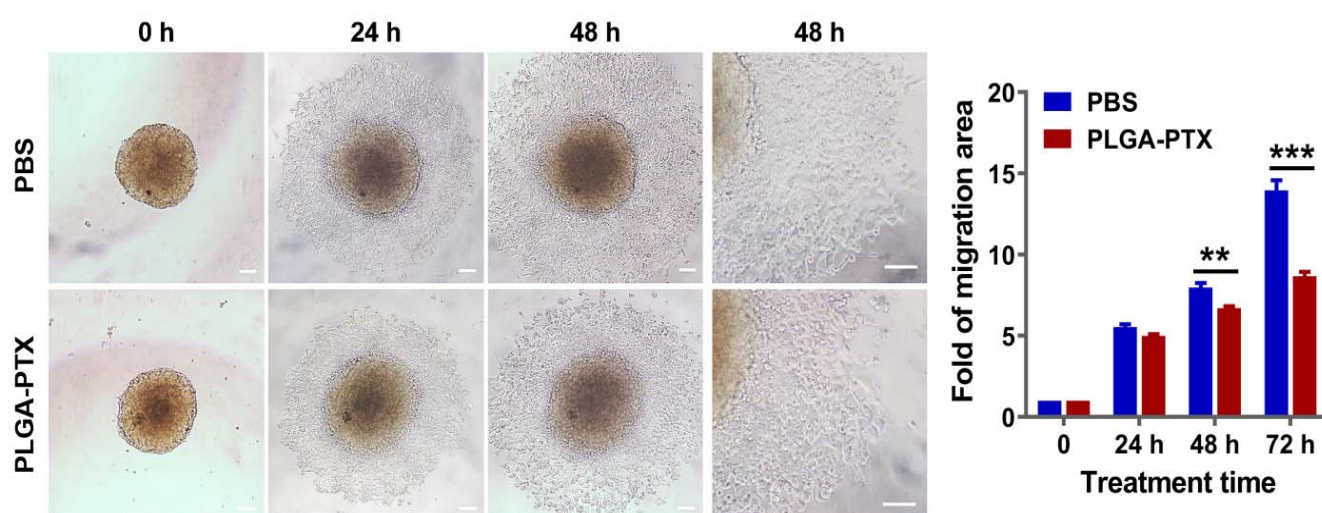


Figure S3. Inhibition of cancer cell migration by PLGA-PTX treatment.

Notes: HCT116 tumor spheroids were treated with low concentration (2.5 ng/ml) of PLGA-PTX in culture medium over time and the migration of tumor cells was recorded by inverted microscope. Scale bar, 100 μ m.

Abbreviations: PLGA, poly lactic-co-glycolic acid; PTX, paclitaxel; PLGA-PTX, paclitaxel-loaded PLGA. PBS, phosphate buffer saline.

Figure S4

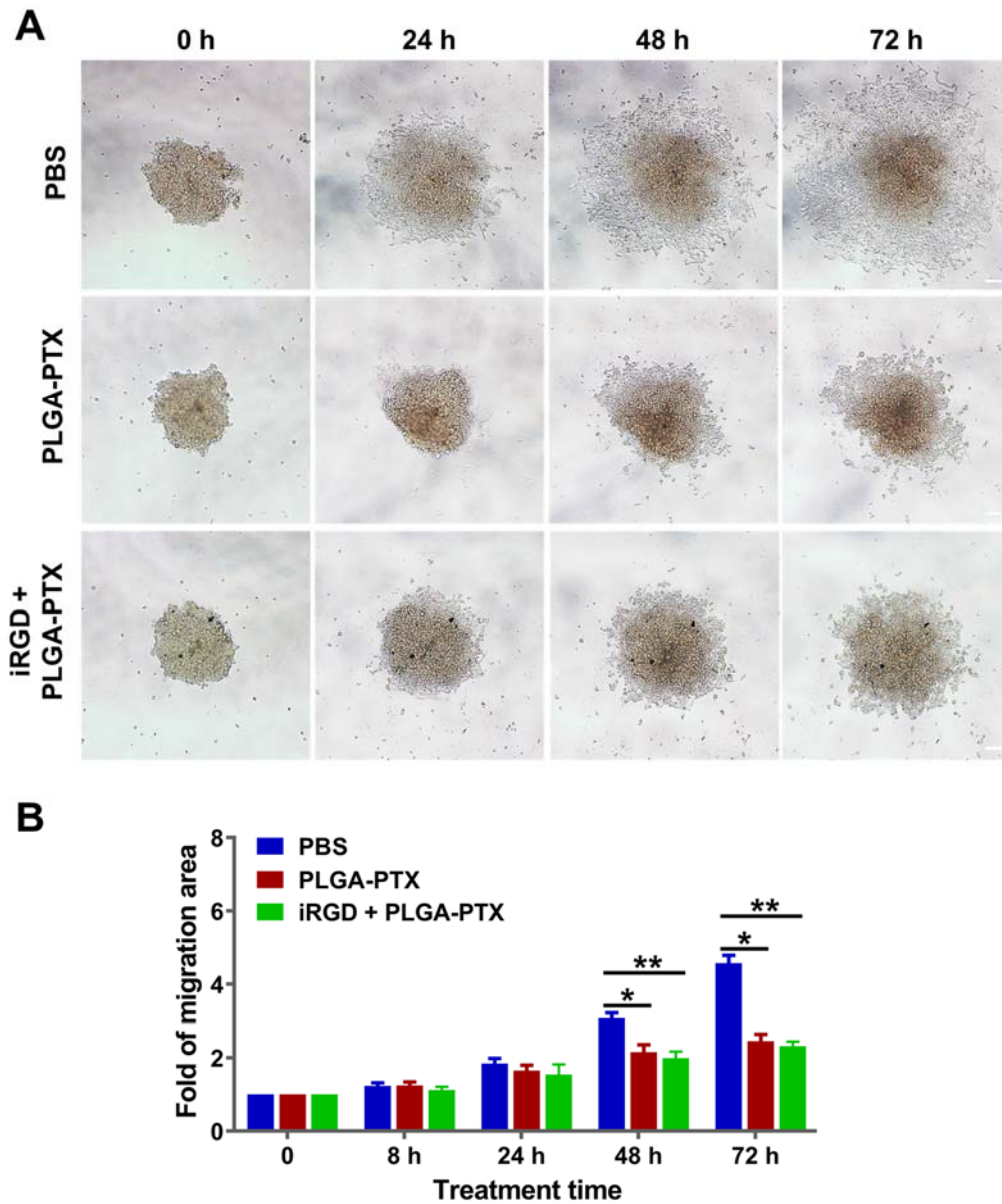


Figure S4. Inhibition of cell migration by the combination of PLGA-PTX and iRGD.

Notes: HCT116 tumor spheroids were treated with PLGA-PTX (10 ng/ml) combined with or without iRGD peptide (10 μ M) in medium containing 2% FBS. (A) The migration of tumor cells was recorded by inverted microscope. Scale bar, 100 μ m. (B) The migration areas were measured and presented as the fold change relative to the areas at 0 h.

Abbreviations: PLGA, poly lactic-co-glycolic acid; PTX, paclitaxel; PLGA-PTX, paclitaxel-loaded PLGA. PBS, phosphate buffer saline.

Figure S5

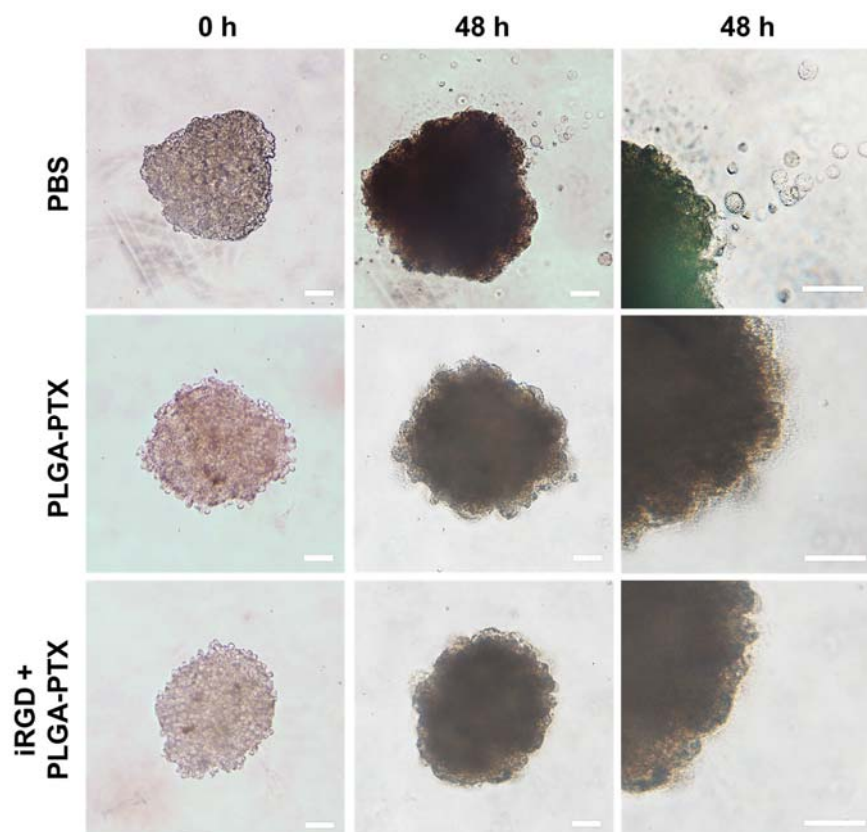


Figure S5. Inhibition of cell invasion by the combination of PLGA-PTX and iRGD.

Notes: HCT116 tumor spheroids were treated with PLGA-PTX (10 ng/ml) combined with or without iRGD peptide (10 μ M). The invasion of tumor cells that disseminated from spheroids into the matrigel matrix was imaged by inverted microscope. Scale bar, 100 μ m.

Abbreviations: PLGA, poly lactic-co-glycolic acid; PTX, paclitaxel; PLGA-PTX, paclitaxel-loaded PLGA; PBS, phosphate buffer saline.

Figure S6

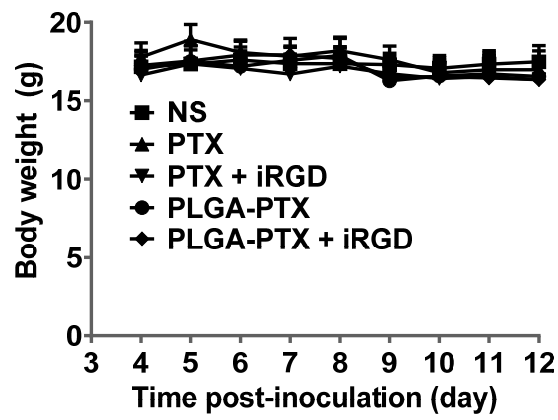


Figure S6. The change of body weight over time in each treatment group.

Abbreviations: NS, normal saline; PLGA, poly lactic-co-glycolic acid; PTX, paclitaxel; PLGA-PTX, paclitaxel-loaded PLGA.