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BSA-coated magnetic nanoparticles for improved therapeutic properties

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Figure S1. Standard calibration curve of free gemcitabine solutions by HPLC.

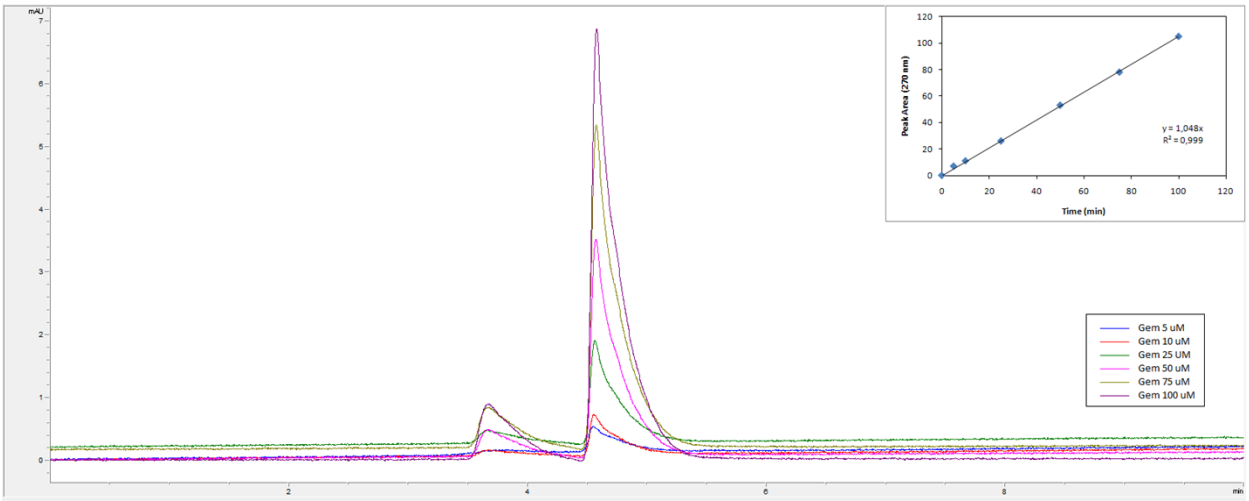

Table S1. Quantification of BSA immobilization onto D-MNP.

Derivative	Initial BSA (µg BSA/mg Fe)	Initial BSA molecules /D-MNP	BSA Load (µg BSA/mg Fe)	Immobilized BSA molecules /D-MNP
D-MNP-BSA-1	83.3	9	62.5	7
D-MNP-BSA-2	166.7	18	122.3	13
D-MNP-BSA-3	250.0	27	130.6	14

Table S2. Evolution of hydrodynamic diameter (D_H) and the polydispersity index (PDI) of MF-MNP in double distilled water (DDW) measured by DLS.

MF-MNP	D_H (nm) (PDI)						
	0	**0.1 h**	**2h**	**4h**	**6h**	**8h**	**24h**
D-MNP-GEM	61(0.25)	61(0.25)	62(0.27)	61(0.24)	60(0.25)	61(0.25)	62(0.26)
D-MNP-BSA-GEM	71(0.19)	71(0.19)	70(0.18)	72(0.20)	71(0.19)	70(0.19)	71(0.18)

Table S3. Evolution of hydrodynamic diameter (D_H)) and the polydispersity index (PDI) of MF-MNP in double fetal bovine serum (FBS) measured by DLS.

MF-MNP	D_H (nm) (PDI)						
	0h	0.5h	2h	4h	6h	8h	24h
D-MNP-GEM	61(0.25)	163(0.28)	171(0.49)	180(0.31)	193(0.50)	210(0.52)	194(0.58)
D-MNP-BSA-GEM	71(0.19)	149(0.27)	152(0.37)	162(0.28)	169(0.40)	170(0.30)	120(0.24)

Table S4. Evolution of hydrodynamic diameter (D_H)) and the polydispersity index (PDI) of MF-MNP in double phosphate buffer saline (PBS) measured by DLS.

MF-MNP	D_H (nm) (PDI)						
	0	0.5 h	2h	4h	6h	8h	24h
D-MNP-GEM	61(0.25)	350(0.46)	425(0.55)	480(0.43)	530(0.57)	642(0.59)	790(0.60)
D-MNP-BSA-GEM	71(0.19)	72(0.21)	74(0.23)	73(0.22)	75(0.26)	74(0.24)	76(0.21)

Fig. S2. Thermogravimetric data for D-MNP-GEM (left panel) and D-MNP-BSA-GEM (right panel) in double distilled water (DDW) and after incubation with FBS for 6 h