Human serum albumin corona on functionalized gold nanorods modulates doxorubicin loading and release

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Supplementary information

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Estimation of hard and soft corona on functionalized AuNRs

Following addition of HSA to the functionalized AuNRs, the samples were incubated for a time period of 1h. A series of 4 centrifugation was done and at each time, the supernatant was collected and protein was quantified by Bradford assay. After the incubation period,the samples were collected and centrifuged at 9000 rpm for 10 min to remove the unbound protein from the particles. Another 2 rounds of centrifugation was done to separate the soft corona. The pellet now was collected and treated with lamelli buffer and incubated for 5 min at 90 °C, this mixture was further centrifuged to and the supernatant was quantified for hard corona.

Table S1. Amount of soft and hard corona of HSA on CTAB-AuNRs, PSS-AuNRs and PEG-AuNRs

Functionalized AuNRs	HSA concentration (mg/mL)				HSA bound / unit AuNR mass (mg/µg AuNR)
	Initial	Unbound	Soft	Hard	
CTAB-AuNRs	39.12 ± 0.66	31.22 ± 0.72	6.33 ± 0.21	1.01 ± 0.12	1.46 ± 0.2
PSS-AuNRs	39.33 ± 1.71	34.13 ± 0.21	3.44 ± 1.22	0.53 ± 1.17	0.79 ±0.3
PEG-AuNRs	39.17 ± 0.76	37.33 ± 0.98	2.06 ± 0.5	0.31 ± 0.98	0.47 ± 0.2

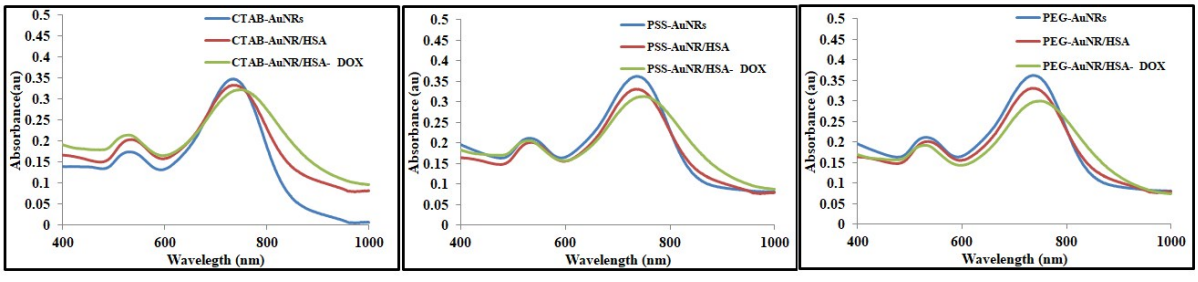

Fig S1. UV-visible spectra of functionalized (CTAB-, PSS- and PEG-) AuNRs