A fabrication method of gold coated colloidosomes and their

application as targeted drug carriers

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Supporting Information

Fig. S1 shows SEM and EDX images of the gold coated colloidosomes.



Fig. S1 (a) SEM and (b) EDX images of the gold coated colloidosomes. The white box in image (a) represents the area over which the EDX image was collected

Fig. S2 shows a bar chart of the SPR wavelength shift for after 10 min settling and after washing. The wavelength shift is calculated from the SPR reflectivity graphs repeating three times



Fig. S2 Bar chart of the SPR wavelength shift for after 10 min settling and after washing.

Table S1 shows the original data of the cell viability tests. For each group the average and standard deviation from five wells is reported.

	Polyme	er shell	Au s	hell	Au she ultras	ll after ound	Au shell DC	loading DX	Au shell DOX ultras	loading after ound
24 h	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV	MEAN	STDEV
10/cel l	95.6%	4.8%	75.8%	5.5%	65.5%	1.4%	72.1%	2.6%	62.4%	1.2%
20/cel l	94.7%	1.1%	69.1%	0.7%	53.6%	0.9%	69.3%	0.9%	52.2%	1.6%
50/cel l	89.8%	4.5%	61.5%	1.1%	50.1%	1.1%	58.3%	2.9%	41.1%	1.3%
48 h										
10/cel l	95.6%	3.3%	85.0%	1.8%	73.0%	1.2%	82.6%	5.1%	71.9%	0.9%
20/cel l	96.7%	2.6%	72.6%	0.9%	61.7%	0.7%	70.7%	0.7%	64.3%	0.5%
50/cel l	88.4%	1.1%	64.5%	4.1%	55.8%	1.9%	63.0%	1.1%	49.7%	1.1%
72 h										
10/cel l	95.2%	3.4%	89.6%	1.9%	83.3%	4.7%	91.8%	2.1%	77.7%	2.6%
20/cel l	95.7%	5.6%	78.0%	2.6%	78.8%	6.2%	85.3%	6.4%	67.6%	2.6%
50/cel l	90.1%	8.1%	71.1%	3.4%	69.9%	6.2%	77.4%	5.2%	73.0%	3.4%

 Table S1. Data of the cell viability tests.

Results of two sample t-tests

For each capsule loading and time we run a two sample t-test to determine whether, within a 95% confidence interval, there is a difference between the cell viability distributions. The tables below report a "yes" when there is a statistically significant difference between the two sets of measurements

10 Capsules per cell

24 hours

	Polymer shell	Au Shell	Au Shell + Ultrasound	Au Shell + Dox	Au Shell + DOX + Ultrasound
Polymer shell		yes	yes	yes	yes
Au Shell			yes		yes
Au Shell + Ultrasound				yes	
Au Shell + Dox					Yes
Au Shell + DOX + Ultrasound					

48 hours

	Polymer shell	Au Shell	Au Shell + Ultrasound	Au Shell + Dox	Au Shell + DOX + Ultrasound
Polymer shell		yes	yes	yes	yes
Au Shell			yes		yes
Au Shell + Ultrasound				yes	
Au Shell + Dox					yes
Au Shell + DOX + Ultrasound					

72 hours

	Polymer shell	Au Shell	Au Shell + Ultrasound	Au Shell + Dox	Au Shell + DOX + Ultrasound
Polymer shell		yes	yes		yes
Au Shell			yes		yes
Au Shell + Ultrasound				yes	
Au Shell + Dox					Yes
Au Shell + DOX + Ultrasound					

20 capsules per cell

24 hours

	Polymer shell	Au Shell	Au Shell + Ultrasound	Au Shell + Dox	Au Shell + DOX + Ultrasound
Polymer shell		yes	yes	yes	yes
Au Shell			yes		yes
Au Shell + Ultrasound				yes	
Au Shell + Dox					yes
Au Shell + DOX + Ultrasound					

48 hours

	Polymer shell	Au Shell	Au Shell + Ultrasound	Au Shell + Dox	Au Shell + DOX + Ultrasound
Polymer shell		yes	yes	yes	yes
Au Shell			yes	yes	yes
Au Shell + Ultrasound				yes	yes
Au Shell + Dox					yes
Au Shell + DOX + Ultrasound					

72 hours

	Polymer shell	Au Shell	Au Shell + Ultrasound	Au Shell + Dox	Au Shell + DOX + Ultrasound
Polymer shell		yes	yes		yes
Au Shell				yes	yes
Au Shell + Ultrasound				yes	yes
Au Shell + Dox					Yes
Au Shell + DOX + Ultrasound					

50 capsules per cell

24 hours

	Polymer shell	Au Shell	Au Shell + Ultrasound	Au Shell + Dox	Au Shell + DOX + Ultrasound
Polymer shell		yes	yes	yes	yes
Au Shell			yes	yes	yes
Au Shell + Ultrasound				Yes	yes
Au Shell + Dox					yes
Au Shell + DOX + Ultrasound					

48 hours

	Polymer shell	Au Shell	Au Shell + Ultrasound	Au Shell + Dox	Au Shell + DOX + Ultrasound
Polymer shell		yes	yes	yes	yes
Au Shell			yes		yes
Au Shell + Ultrasound				yes	yes
Au Shell + Dox					yes
Au Shell + DOX + Ultrasound					

72 hours

	Polymer shell	Au Shell	Au Shell + Ultrasound	Au Shell + Dox	Au Shell + DOX + Ultrasound
Polymer shell		yes	yes	yes	yes
Au Shell					
Au Shell + Ultrasound					
Au Shell + Dox					
Au Shell + DOX + Ultrasound					