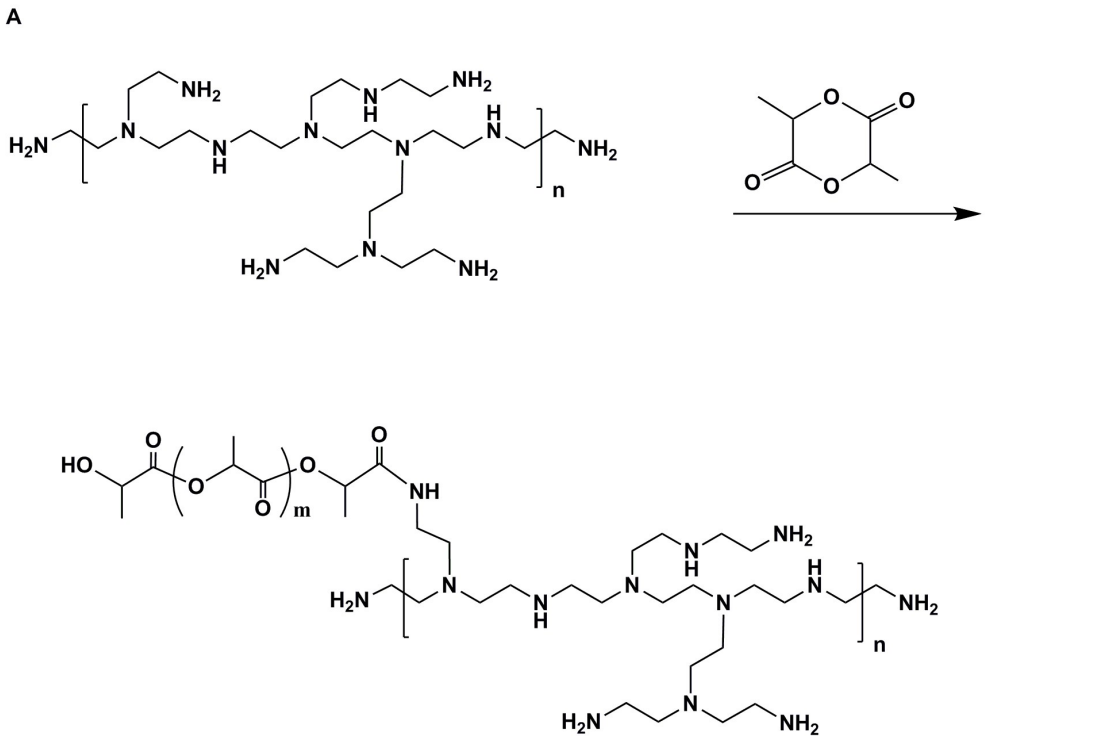
Electronic Supplementary Material (ESI) for Biomaterials Science.

Supplementary Information



Scheme S1 (A) synthesis route of PEI-PLA and (B) the structure of DSPE–PEG2000.

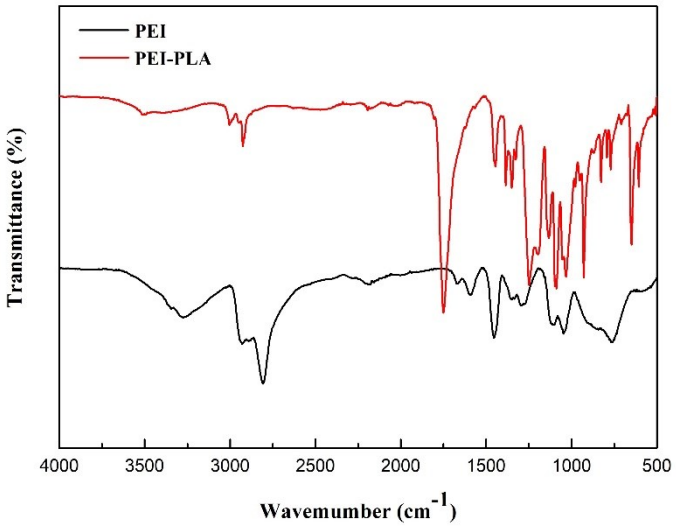


Fig. S1 FT-IR spectrum of PEI and PEI-PLA.

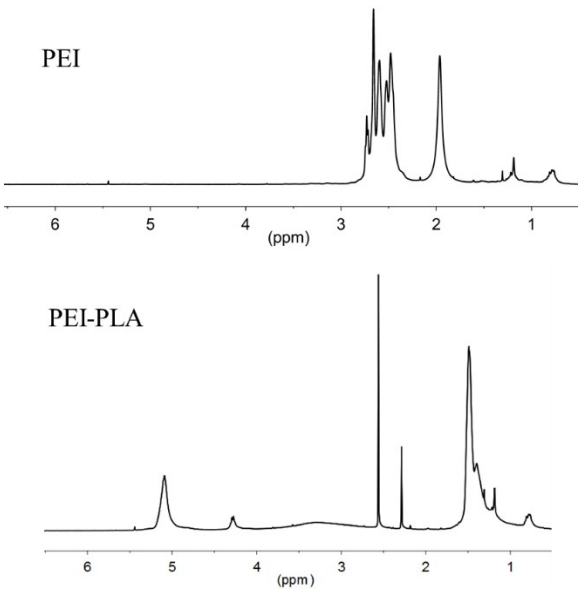


Fig. S2 ^{1}H NMR spectrum of PEI and PEI-PLA (The deuterated chloroform ($CDCl_3$) was used as solvent).

Table S1. The influences of formulation parameters on the size, PDI, zeta potential and IRI drug encapsulation efficiency (EE) and loading content (LC).

PEI-PLA:DSPE-PEG:IRI mass ratio	**Size(nm)**	**PDI**	**Zeta potential (mV)**	**EE (%)**	**LC (%)**
PEI-PLA NPs	160±5.06	0.123±0.044	43 mV±8.11		
5:5:1	171.25±4.70	0.096±0.014	15.12±0.36	81.25±3.12	13.73±0.16
5:10:1	196.51±5.23	0.183±0.046	8.35±0.51	89.11±2.50	8.16±0.21
5:20:1	203.61±5.44	0.230±0.021	4.22±0.67	90.40±1.63	6.01±0.15
10:10:1	200.34±5.12	0.155±0.039	13.26±0.45	89.44±1.45	8.22±0.30
10:20:1	211.45±5.65	0.173±0.065	7.58±0.53	91.76±2.15	7.14±0.18

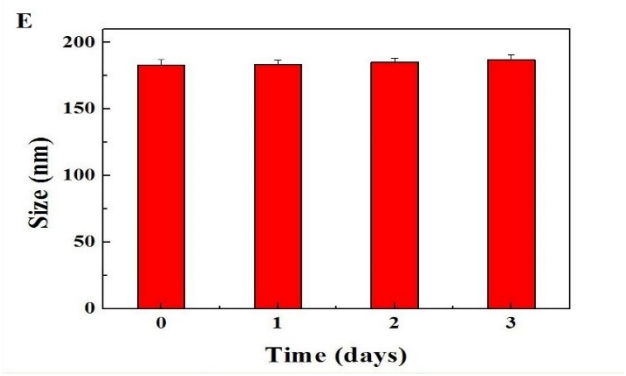


Fig. S3 The average size of MINPs after maintained in PBS for different time intervals.

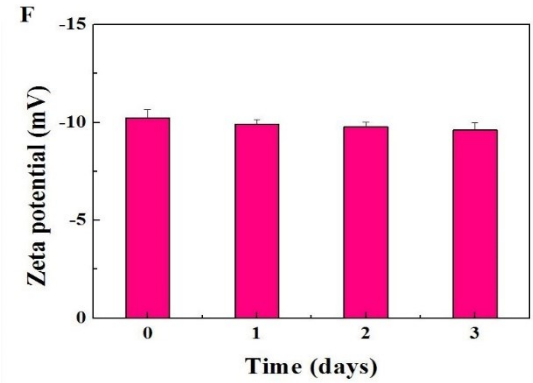


Fig. S4 Zeta potential of MINPs in PBS (pH = 7.4) at different time intervals.

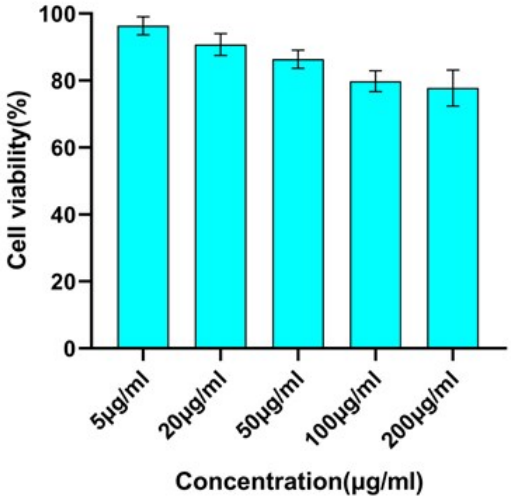


Fig. S5 Cytotoxicity of PEI-PLA/DSPE-PEG blank hybrid micelles.

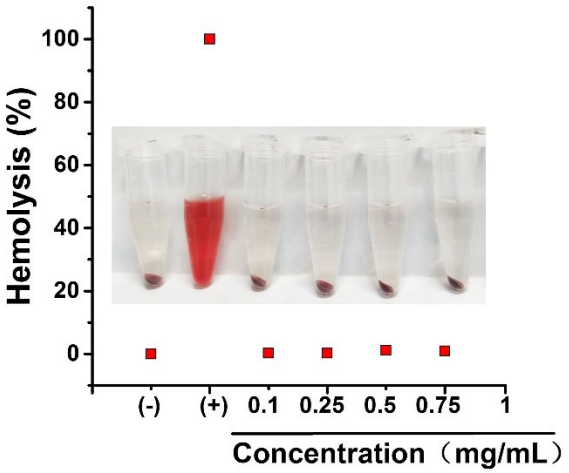


Fig. S6 Hemolysis analysis of different concentrations of MINPs. Negative control: PBS, Positive control: water.