

**Figure S1**. <sup>1</sup>H NMR of: a) NB-(PPE-PMI)-NB, (400 MHz, CDCl<sub>3</sub>); b) OEG-NHS-(PPE-PMI<sub>0.005</sub>)-NHS-OEG, (400 MHz, DMF-d<sub>7</sub>); c) OEG-50%FA-(PPE-PMI<sub>0.005</sub>)-50%FA-OEG, (400 MHz, DMF-d<sub>7</sub>).



**Figure S2**. (a) Molar absorptivity of NB-(PPE-PMI<sub>0.005</sub>)-NB and NB-(PPE-PMI<sub>0.05</sub>)-NB in THF solution; and (b) dispersion of the NPs in water solution.



**Figure S3**. Dynamic light scattering measurements: (a) NB-(PPE-PMI<sub>0.005</sub>)-NB, and (b) NB-(PPE-PMI<sub>0.05</sub>)-NB NPs.



**Figure S4**. Tuning the size of the NPs by varying NB-(PPE-PMI<sub>0.05</sub>)-NB concentration in THF solution from 50 to 200  $\mu$ g/mL. Scale bar: 100 nm.



Figure S5. TEM images of the OEG-NHS-(PPE-PMI<sub>0.005</sub>)- NHS-OEG.



**Figure S6.** Confocal microscopy images of KB cells (a, d) stained with Alexa 488 Phalloidin actin; (b, e) treated with Hoescht nuclei stain; (c) treated with OEG-NHS-(PPE-PMI<sub>0.05</sub>)-NHS-OEG; and (f) treated with OEG-FA-(PPE-PMI<sub>0.05</sub>)-FA-OEG.



**Figure S7**. Flow cytometry analysis of KB cells after incubation with conjugated polymer NPs for 8 h. Plots of QD705 vs. FITC showing enhanced cell-associated uptake.



**Figure S8**. a) Measured mean cell-associated fluorescence of KB cells as function of concentration. b) KB cell viability with different NPs formulation for 48 h. (0.5% NHS = OEG-NHS-(PPE-PMI<sub>0.005</sub>)-NHS-OEG; 0.5% 50%FA = OEG-50%FA-(PPE-PMI<sub>0.005</sub>)-50%FA-OEG; 5% NHS = OEG-NHS-(PPE-PMI<sub>0.05</sub>)-NHS-OEG; 5% 20%FA = OEG-20%FA-(PPE-PMI<sub>0.05</sub>)-20%FA-OEG; control = untreated KB cells).



**Figure S9.** Hydrodynamic diameters measured with dynamic light scattering of the nanoparticles before and after incubation with serum for up to 24 hours.



**Figure S10.** Fluorescence 3D optical imaging of harvested organs at 24 h after injection with OEG-NHS-(PPE-PMI<sub>0.005</sub>)-NHS-OEG NPs showing little accumulation in vital organs (Li= liver, Sp = spleen, K = kidney, Lu = lungs, H = heart).