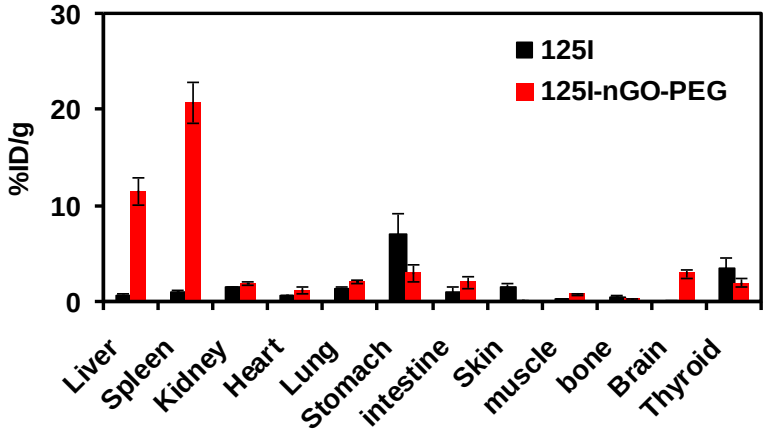

Supplementary Figure. Biodistribution of free ^{125}I and ^{125}I-nGO-PEG at 6 h post i.v. injection. Minimal uptake of free ^{125}I was observed in the liver, spleen, as well as most other organs expect thyroid and stomach due to the fast renal excretion of small iodine ions[Ref 33].

Supplementary Table: Summary in vivo toxicity of different polymer functionalized GO

In Vivo Toxicity	Ref
Pristine graphene or as-made GO	
GO was administered directly into the lungs of mice, and resulted in severe and persistent lung injury.	34
GO without surface coating i.v. injected into mice induced inflammation cell infiltration, pulmonary edema, and granuloma formation in the lung of mice (10 mg/kg and 20 mg/kg).	50, 51
Covalent functionalization	
PEGylated GO i.v. injected into mice at the dose of 20 mg/kg did not induce obvious toxicity.	8, 25, 33
Dextran functionalized GO did not induce appreciable toxicity to mice via i.v. injection (20mg/kg).	9
Non-covalent functionalization	
Pluronic dispersed GO was administered directly into the lungs of mice (50 μg/mouse), and did not induce obvious pulmonary toxicity.	34
Non-covalently functionalized RGO or nRGO after C18PMH-PEG coating appeared to be non-toxic in vivo to mice via i.v. injection (20mg/kg), intraperitoneal injection(50 mg/kg), or oral feeding (100 mg/ml)	25, 35