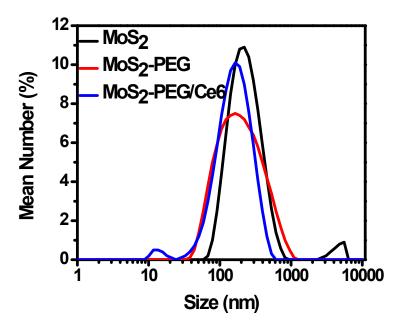
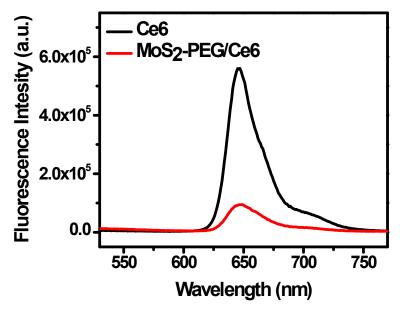
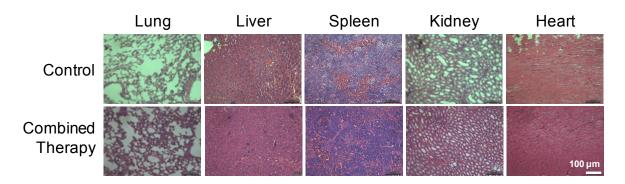
## **Supporting Information**



**Supporting Figure S1.** DLS measured hydrodynamic sizes of MoS<sub>2</sub> nanosheets before & after PEGylation or Ce6 loading.



**Supporting Figure S2.** Fluorescent spectra of Ce6 and MoS<sub>2</sub>-PEG/Ce6 aqueous solutions at the same Ce6 concentration ( $\lambda ex = 404$  nm), demonstrating fluorescence quenching of Ce6 after loading onto MoS<sub>2</sub>-PEG.



**Supporting Figure S3.** H&E stained images of major organs of healthy mice and mice 30 days after PTT & PDT combined therapy with i.v. injection of MoS<sub>2</sub>-PEG/Ce6. No noticeable abnormality was observed.