

SUPPORTING INFORMATION

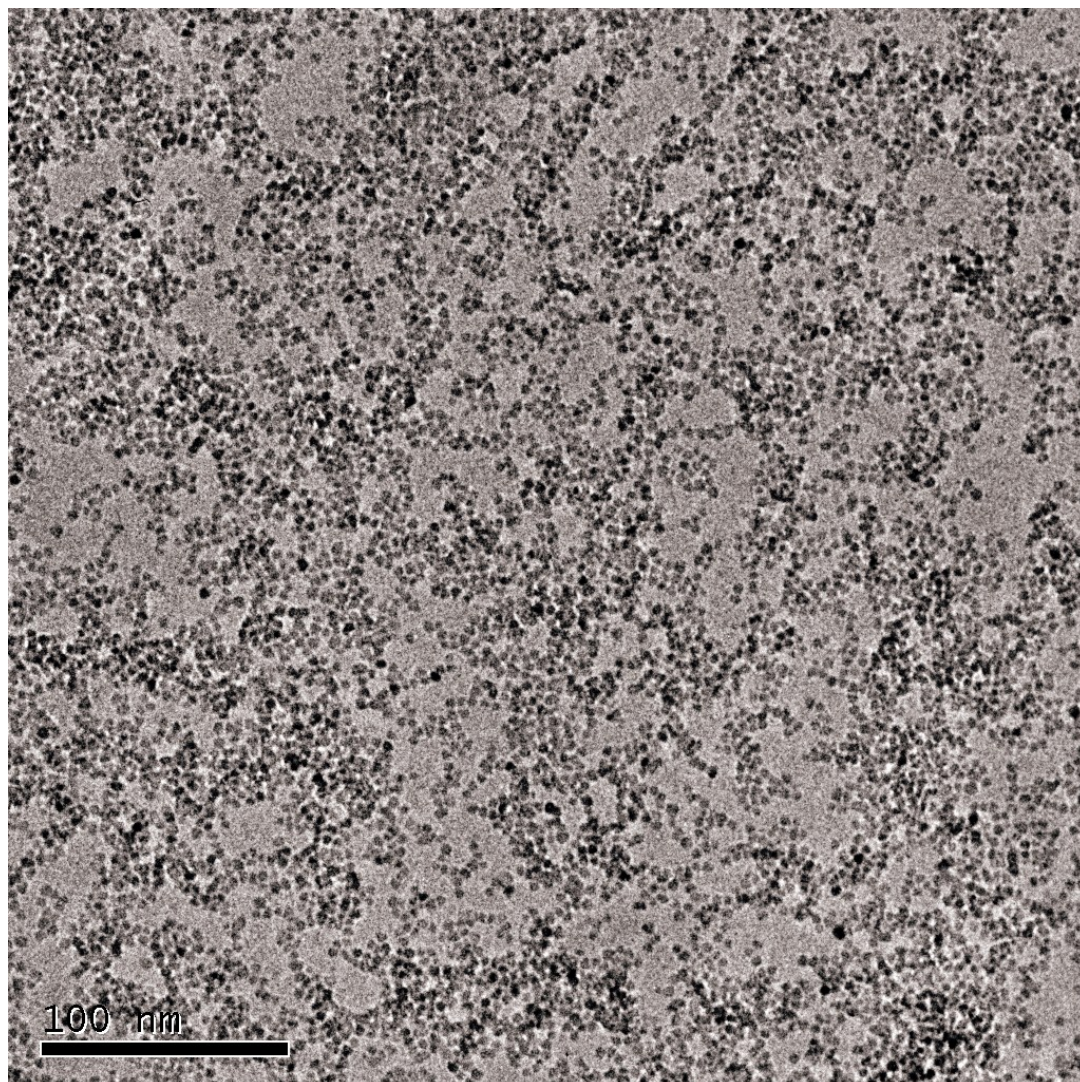
**Synergistic enhanced photocatalytic and chemotherapeutic effects of aptamer-functionlized ZnO nanoparticles towards cancer cells**

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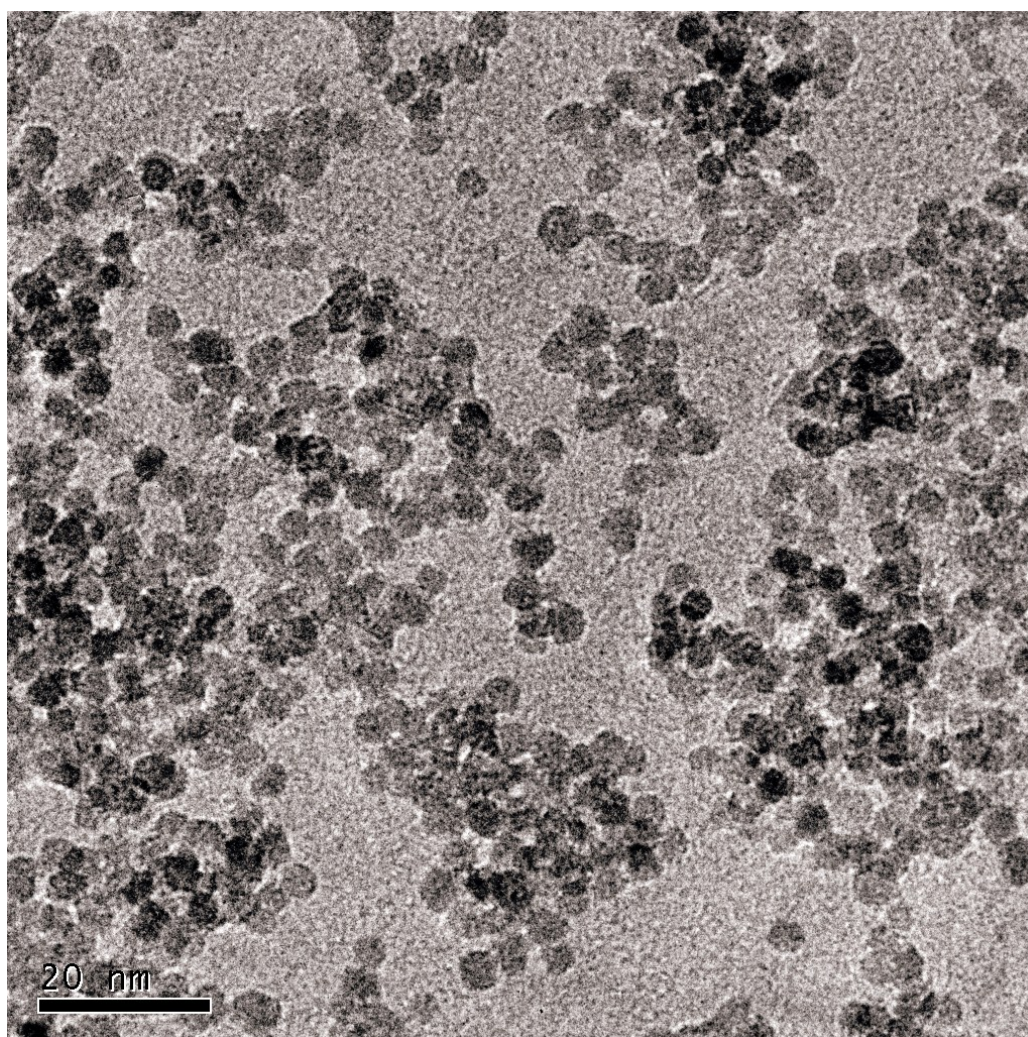
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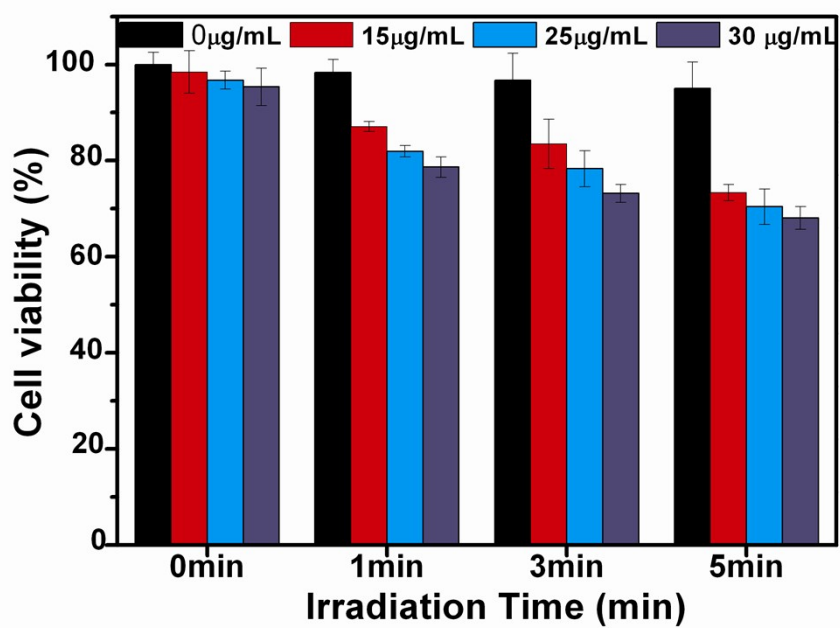
<sup>[1]</sup> These authors contributed equally to this work.



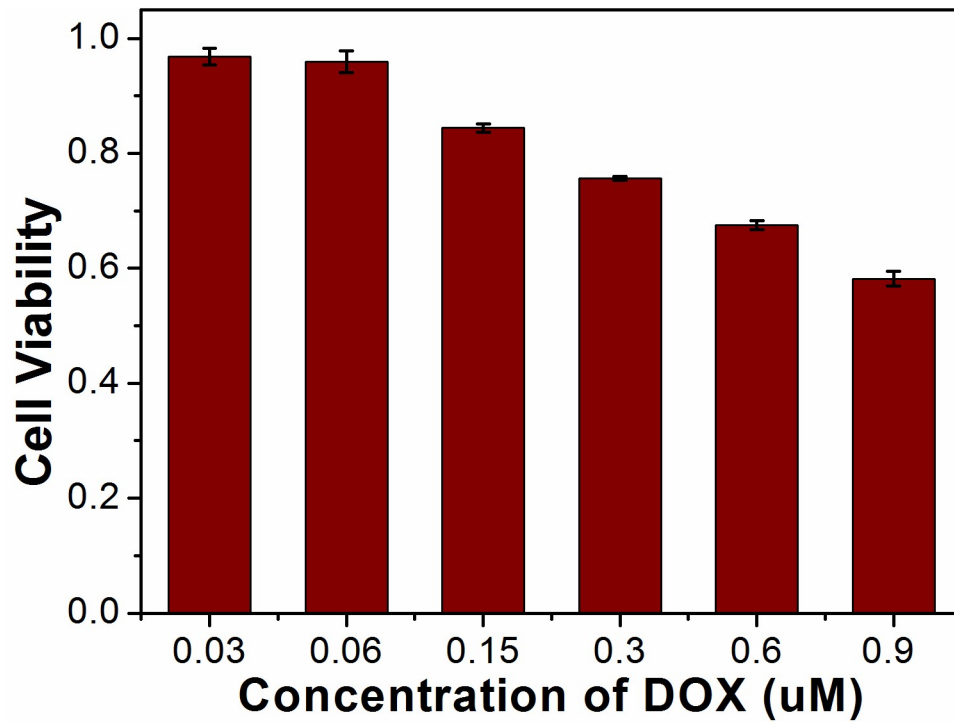
**Fig. S1.** TEM image of ZnO nanoparticles. Scale bar is 100 nm.



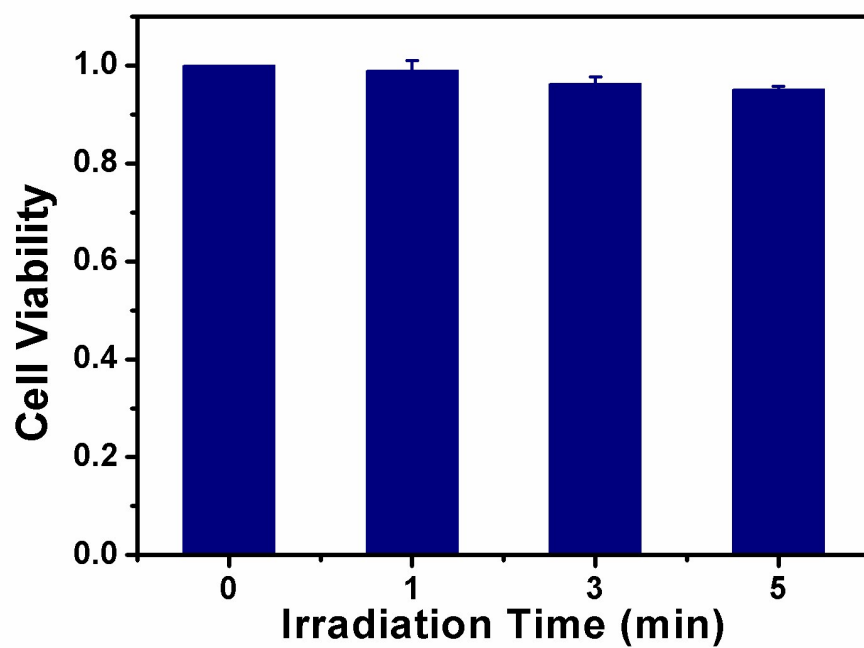
**Fig. S2.** TEM images of ZnO nanoparticles. Scale bar is 20 nm.



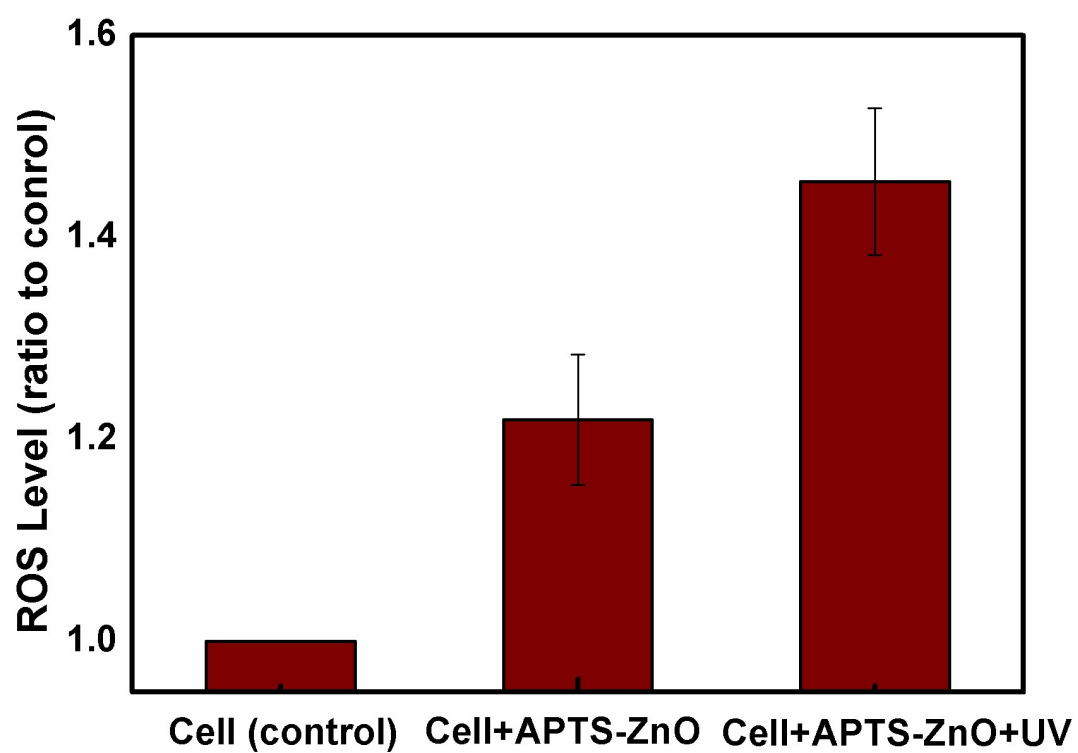
**Fig. S3.** The MCF-7 cell viability after treated with APTES-ZnO NPs and UV irradiation. (The concentrations of NPs were 0, 15, 25, 30µg/ml; The irradiation time were 0, 1, 3, 5 min.)



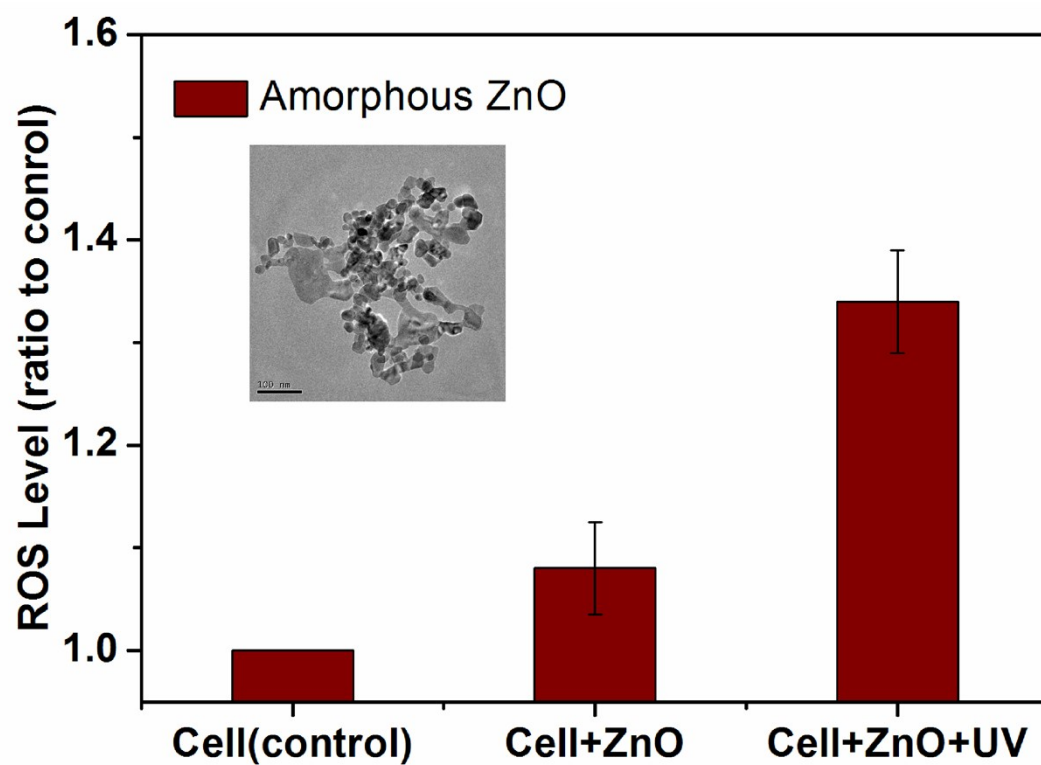
**Fig. S4.** The MCF-7 cell viability after treated with Dox of different concentrations.



**Fig. S5.** The HEK 293 cell viability with and without UV irradiation.



**Fig. S6** ROS (reactive oxygen species) level of 30  $\mu\text{g/mL}$  APTES-ZnO NPs to MCF-7 cells before and after UV irradiation for 1 min.



**Fig. S7** ROS level of 30  $\mu\text{g/mL}$  amorphous ZnO NPs to MCF-7 cells before and after UV irradiation for 1 min. Inset is TEM image of amorphous ZnO NPs.