

Supporting information

## **Phosphate-triggered Release of Anti-cancer Drug Arsenic Oxide from a Self-delivery System: *In Vitro* and *In Vivo* Study**

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## Figures and Captions

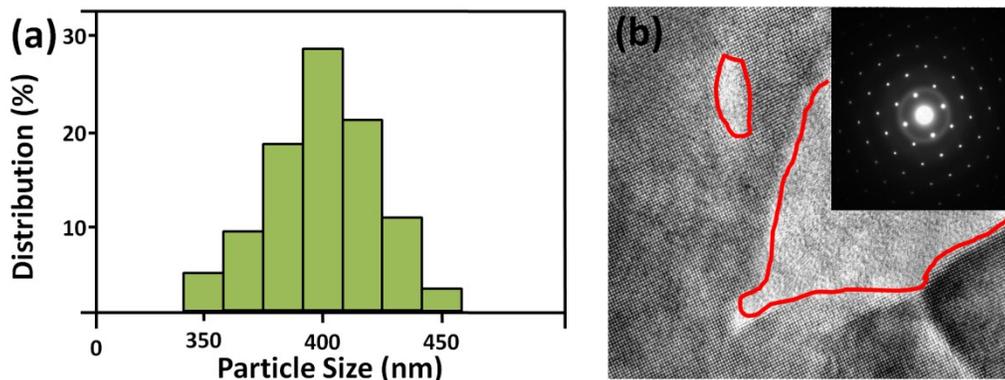


Figure S1. (a) Size distribution curve of dextran-coated  $\text{GdAsO}_x$  NP in the absence of Pi. (b) High resolution TEM and corresponding electron diffraction (ED) pattern (inserted image).  $\text{GdAsO}_x$  NP is well crystallized although the acquired lattice and ED pattern cannot be defined. It is also very sensitive to e-beam exposure, and imprint residue of beam shooting (red circle and curve) is clearly visible on individual particle.

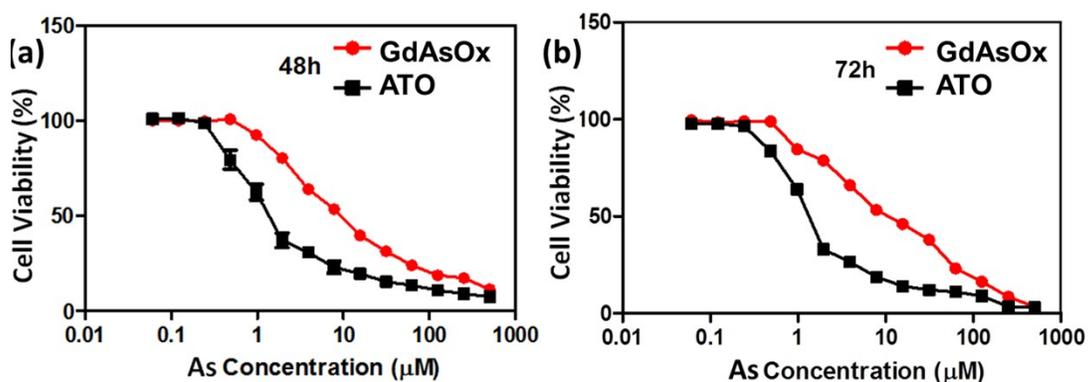


Figure S2: Human HepG2 cell viability against ATO and  $\text{GdAsO}_x$  NPs after 48 (a) and 72 (b) hours incubation by MTT assay.

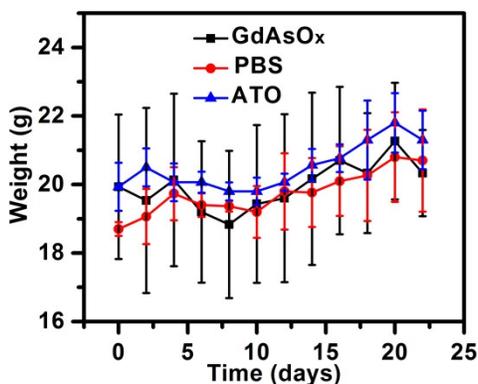


Figure S3: Body weight curves of three group treated with PBS, ATO and  $\text{GdAsO}_x$  NPs, respectively.

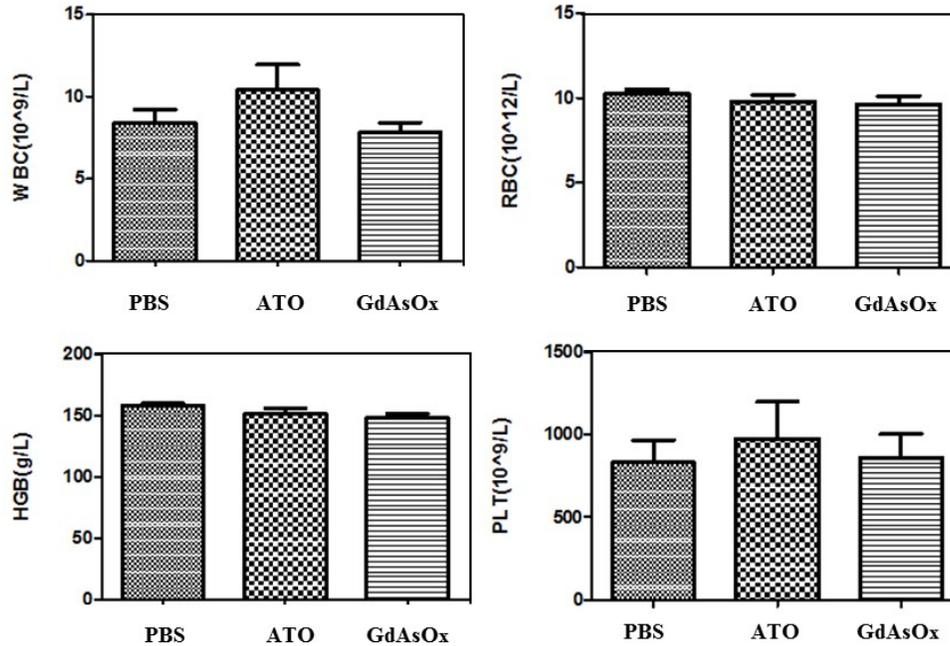


Figure S4: Hematology of mice administered with PBS, ATO, or GdAsO<sub>x</sub> NP. White blood cell number (WBC), red blood cell number (RBC), hemoglobin (HGB) concentration, and platelets (PLT) of the blood were measured.

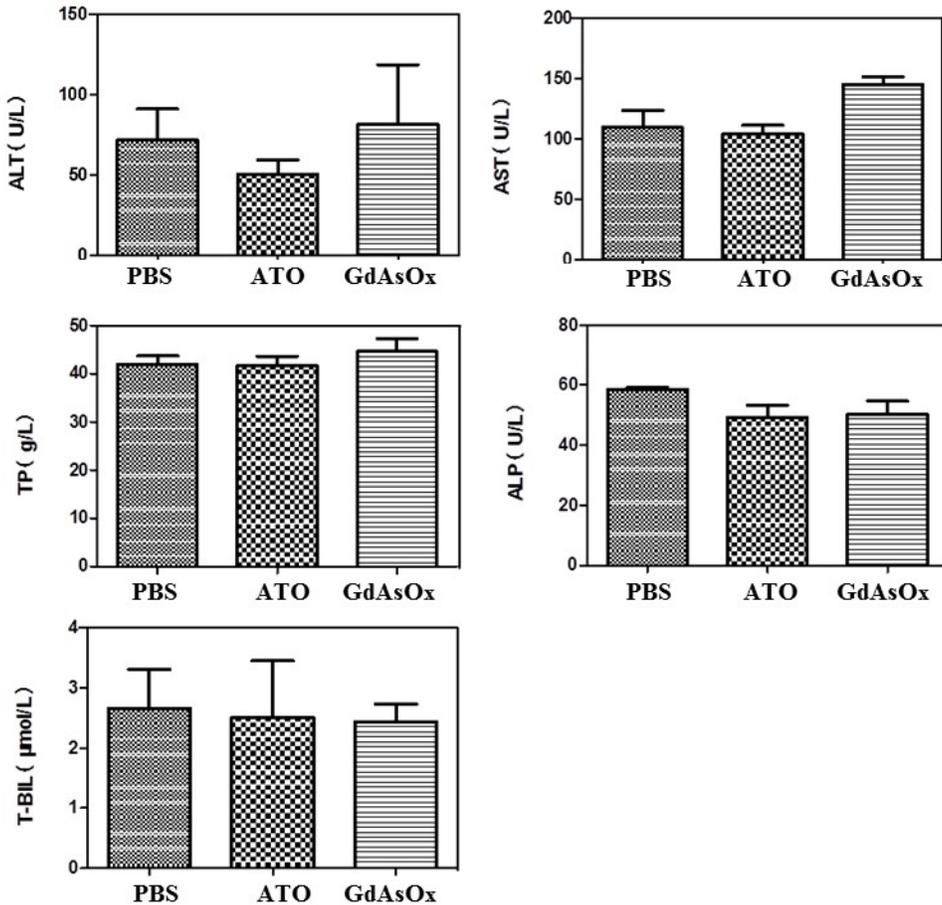


Figure S5: Liver function measurements. Alanine transaminase (ALT), Aspartate transaminase (AST), total protein (TP), alkaline phosphatase (ALP) and total bilirubin (TB) were indexed.

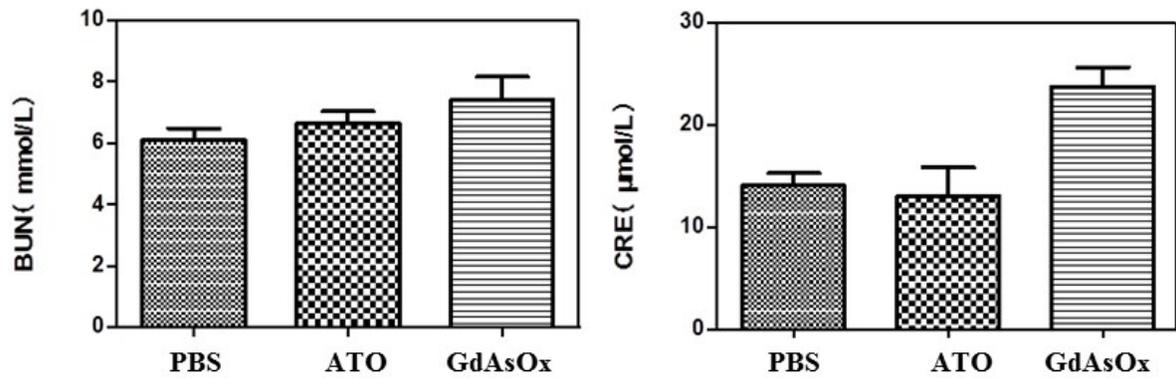


Figure S6: Renal function measurements. Blood urea nitrogen (BUN) and Creatinine (CRE) were indexed.