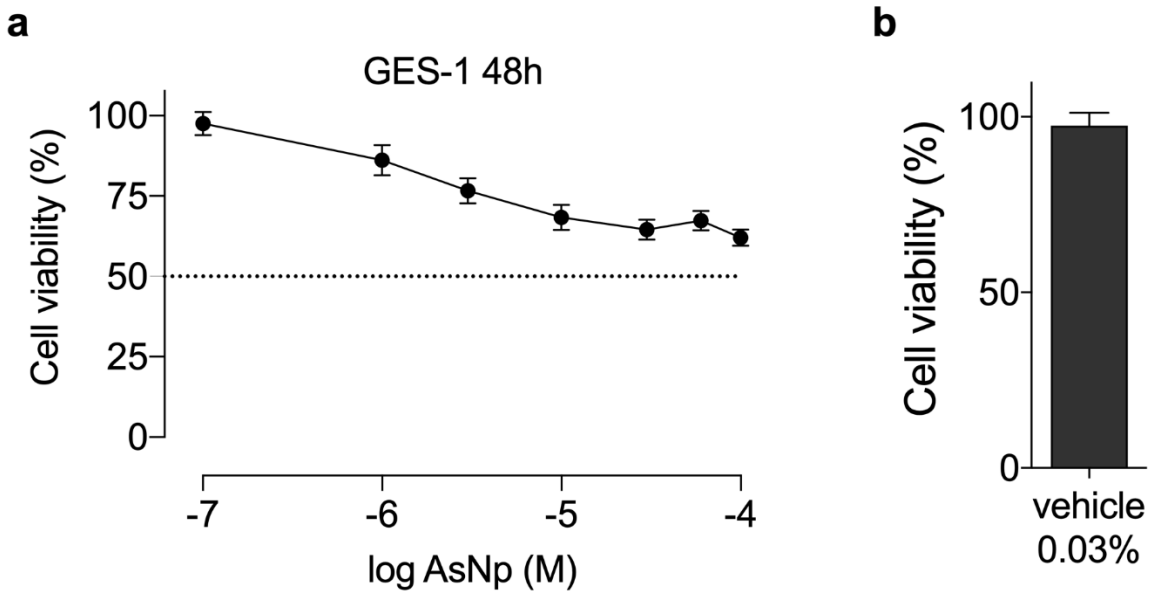
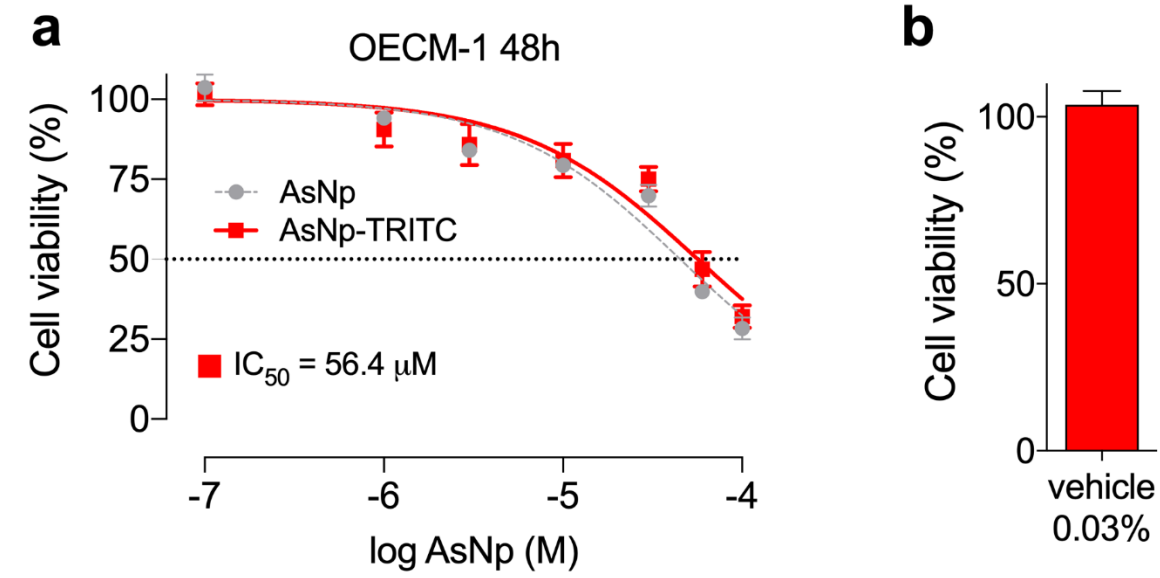
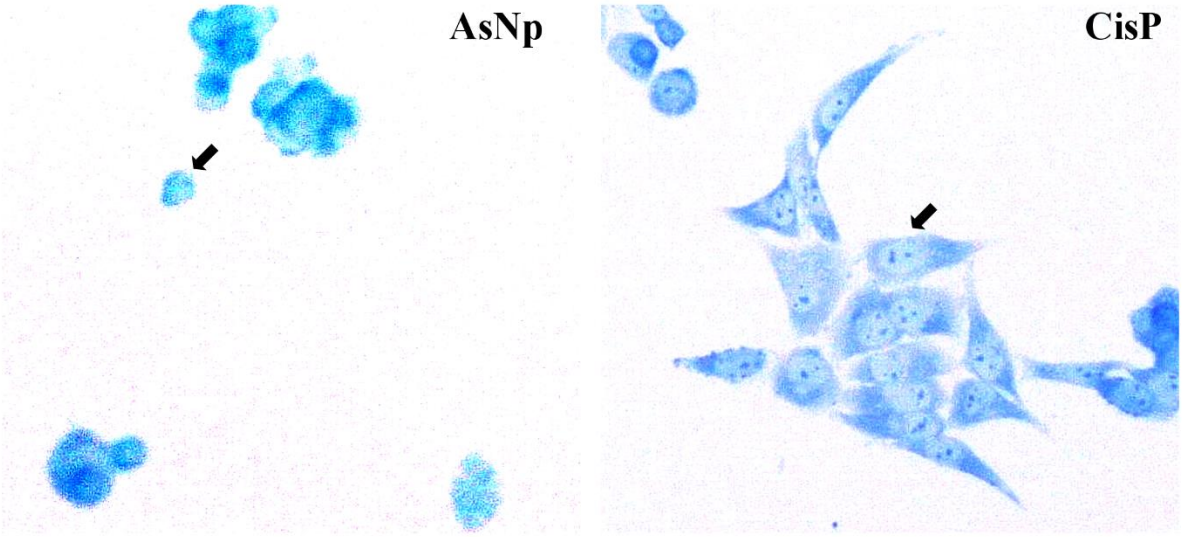


Supplementary figure S1. Viability of GES-1 cells incubated with AsNp. **(a)** Cell viability was measured with Rezasurin© assay. Cells were incubated with crescent concentrations of nanoparticles (1-100 µM and (**b**) included 0.03% vehicle (chitosan) for 48 h. Data are a mean of 4 independent experiments.



Supplementary figure S2. Effect of TRITC conjugation on AsNp activity against OECM-1 cell proliferation. (a) Cell viability was measured with Rezasurin© assay. Cells were incubated with crescent concentrations of nanoparticles (1-100 µM and (b) included 0.03% vehicle (chitosan) for 48 h. AsNp were incubated alone (gray symbols) or conjugated with TRICT (red symbols and bar). Data are a mean of 4 independent experiments.



Supplementary figure S3. Morphological differences in OECM-1 cells incubated with AsNp. OECM-1 cells incubated with 60 µM of AsNp (**left**), or 100 **µ**M of CisP (**right**), for 48 h, and stained with 0.2% of methylene blue solution. Arrow indicates the morphological change in these cells.

Table S1. Primer sequences and characteristics for each analyzed gene.

Gene	NCBI Reference Sequence	Primer Sequence	Amplicon size (bp)	Amplicon $T_{melting}$ (°C)
PTEN	NM_000314.8	Fw: 5′-GCT GGA AAG GGA CGA ACT GGT GTA A-3′	153	77.5 ± 0.5
		Rv: 5′-ATA CAC ATA GCG CCT CTG ACT GGG A-3′		
p53	NM_001276761.3	Fw: 5′-CCC ATC CTC ACC ATC ATC ACA CTG G-3′	222	84.5 ± 0.5
		Rv: 5′-CAG TGG TTT CTT CTT TGG CTG GGG A-3′		
B2M	NM_004048.4	Fw: 5′-AAG TGG GAT CGA GAC ATG TAA GCA-3′	70	77.0 ± 0.5
		Rv: 5′-GGA ATT CAT CCA ATC CAA ATG CGG C-3′		

Table S2. List of antibodies used for immunoblotting.

Antibody	Dilution	Reference
Bcl2	1 : 1,000	Santa Cruz Biotechnology Cat# sc-7382, RRID:AB_626736
Bax	1 : 1,000	Santa Cruz Biotechnology Cat# sc-23959, RRID:AB_626728
BID	1 : 1,000	Santa Cruz Biotechnology Cat# sc-373939, RRID:AB_10917226
AKT (1/2/3)	1 : 1,000	Santa Cruz Biotechnology Cat# sc-81434, RRID:AB_1118808
pAKT (1/2/3)	1 : 1,000	Santa Cruz Biotechnology Cat# sc-81433, RRID:AB_1125472
Erk (1/2)	1 : 1,000	Santa Cruz Biotechnology Cat# sc-514302, RRID:AB_2571739
pErk (1/2)	1 : 1,000	Santa Cruz Biotechnology Cat# sc-81492, RRID:AB_1125801
Bit-1	1 : 10,000	Abcam Cat# ab109291, RRID:AB_10890820
Cleaved caspase-3	1 : 1,000	Cell Signaling Technology Cat# 9661 (also NYUIHC-314, 9661S, 9661L), RRID:AB_2341188
Actin	1 : 4,000	Santa Cruz Biotechnology Cat# sc-8432, RRID:AB_626630
HRP-conjugated anti-rabbit IgG	1 : 5,000	Jackson ImmunoResearch Labs Cat# 711-036-152, RRID:AB_2340590
HRP-conjugated anti-mouse IgG	1 : 5,000	Rockland Cat# 610-1319, RRID:AB_219659