Support Information

Disturbing Microtubule-Endoplasmic Reticulum Dynamics by Gold Nanoclusters for Improved Triple-Negative Breast Cancer Treatment

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Table S1. Resources Table

REAGENT or RESOURCE	SOURCE	IDENTIFIER
Antibodies		
Rabbit Anti-Phospho-PERK (Thr980)	Bioss Antibodies	bs-23340R
Rabbit Anti-PERK	Bioss Antibodies	bs-2469R
Rabbit Anti-phospho-IRE1a (Ser 726)	Bioss Antibodies	bs-4308R
Rabbit Anti-IRE1	Bioss Antibodies	bs-8680R
Rabbit Anti-DDIT3 antibody	Bioss Antibodies	bs-20669R
Rabbit Anti-ATF4	Bioss Antibodies	bs-1531R
Rabbit Anti-TNFα	Bioss Antibodies	bs-10802R
Rabbit Anti-IL-6	Bioss Antibodies	bs-0782R
Rabbit anti-actin	Bioss Antibodies	bs-10966R
Mouse Anti-Tubulin Antibody	Beyotime	AF2827
Alexa Fluor 594-labeled Goat Anti-Rabbit IgG (H+L)	Abcam	ab150080
Alexa Fluor 488-labeled Goat Anti-Rabbit IgG (H+L)	Abcam	ab150077
Alexa Fluor 647-labeled Goat Anti-Mouse IgG (H+L)	Beyotime	A0473
HRP-labeled Goat Anti-Rabbit IgG (H+L)	Beyotime	A0208
Chemicals, peptides, and recombinant proteins		
GSH peptide	Sigma-Aldrich	
Docetaxel	MedChemExpress	HY-B0011
Calcein AM	Beyotime	C2012
Propidium Iodide Staining Solution	Biosciences（BD）	556463
SuperSignal West Pico PLUS	Thermo Fisher Scientific	34580
Nitric acid	Sinopharm Chemical Reagent	010043
30% hydrogen peroxide	Sinopharm Chemical Reagent	10011208
Hydrochloric acid	Sinopharm Chemical	10011018

	Reagent	
Cell Counting Kit-8	Beyotime	C0038
Saponin	Beyotime	ST2618
Rnase A	Beyotime	ST578
Methylcellulose	Aladdin	M112865
DAPI staining solution	Beyotime	C1005
DAB Horseradish Peroxidase Color Development Kit	Beyotime	P0202

Table S2. The primer sequences used in the study

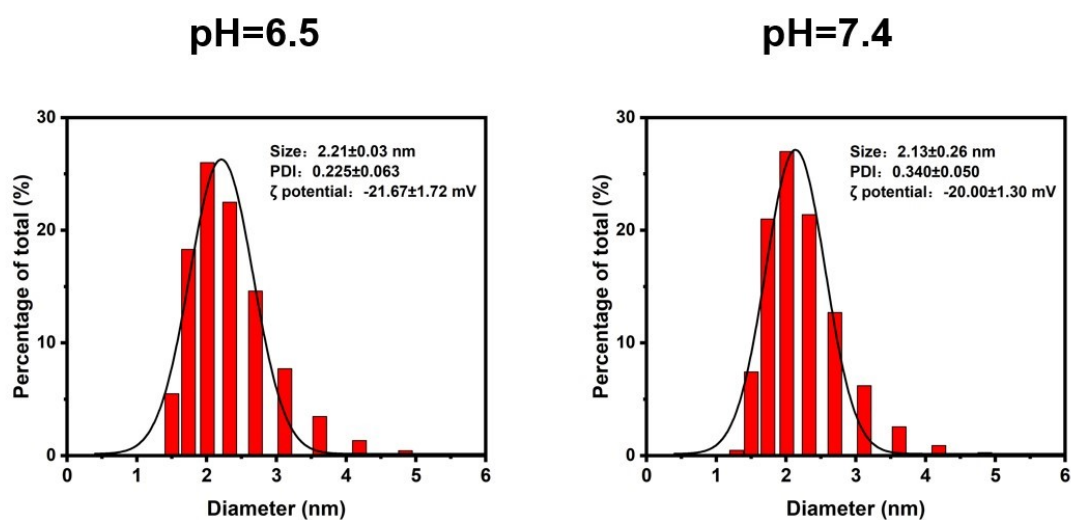| Gene	Forward primer （5'→3'）	Reverse prime （5'→3'）
ATF4	GTGGATGGGTTGGTCAGTCCCT	AGGGCATCCAAGTCGAACTCCT
Ddit3 (CHOP)	CTGCCTTTCACCTTGGAGAC	CGTTTCCTGGGGATGAGATA
Ppp1r15a (GADD34)	TTT TGG CAA CCA GAA CCG	GGA GAT AGA AGT TGT GGG CG
GAPDH	AGGTCGGTGTGAACGGATTTG	GGGGTCGTTGATGGCAACA

Figure S1. The size distribution, PDI and zeta potential of GA in solutions with pH of 6.5 (left) and 7.4 (right).
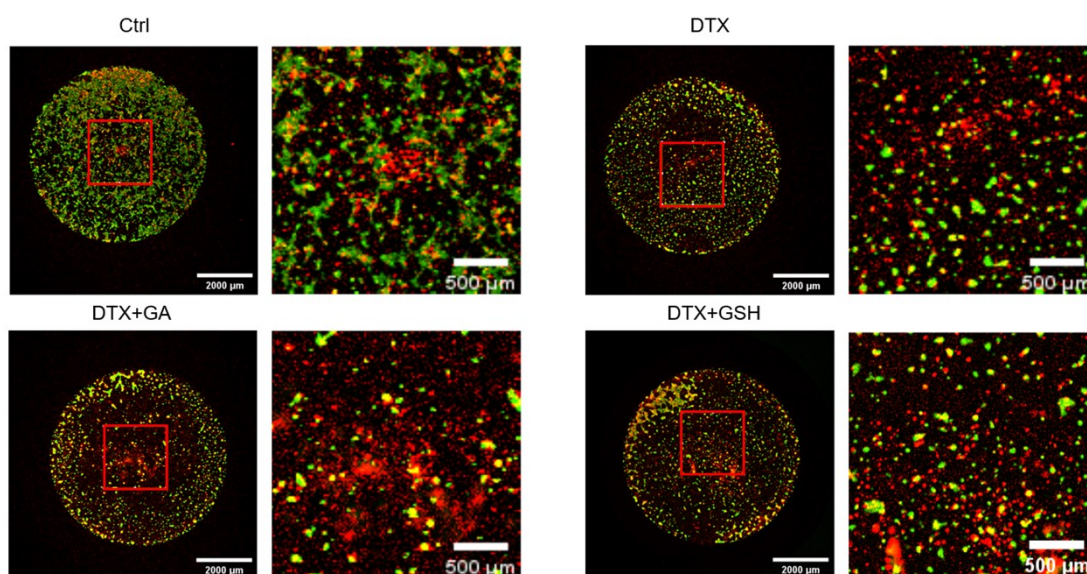

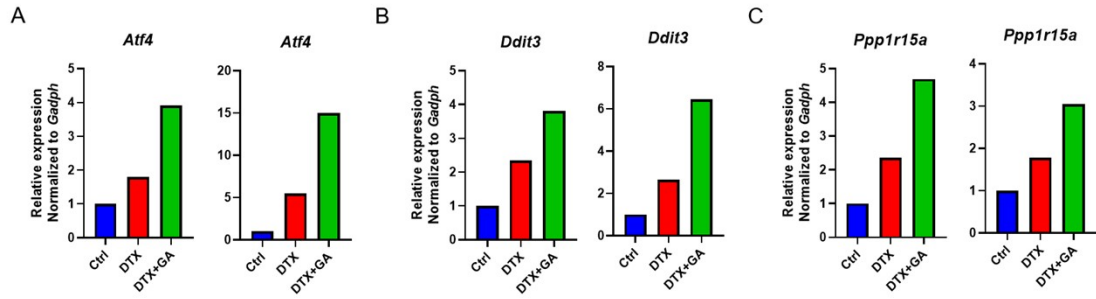**Figure S2.** Enlarged picture of selected regions in Figure 2B.

Figure S3. The mRNA levels of Atf4 (ATF4, A), Ddit3 (CHOP, B) and Ppp1r15a (GADD34, C) of 4T1 cells by indicated treatment.
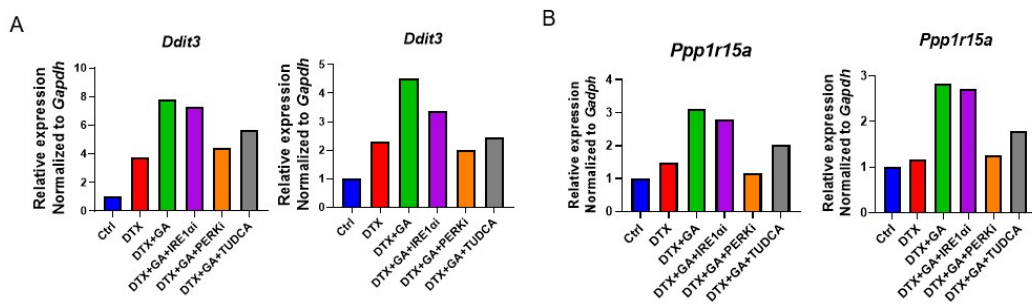

Figure S4. The mRNA levels of Ddit3 (CHOP, A) and Ppp1r15a (GADD34, B) of 4T1 cells by indicated treatment.
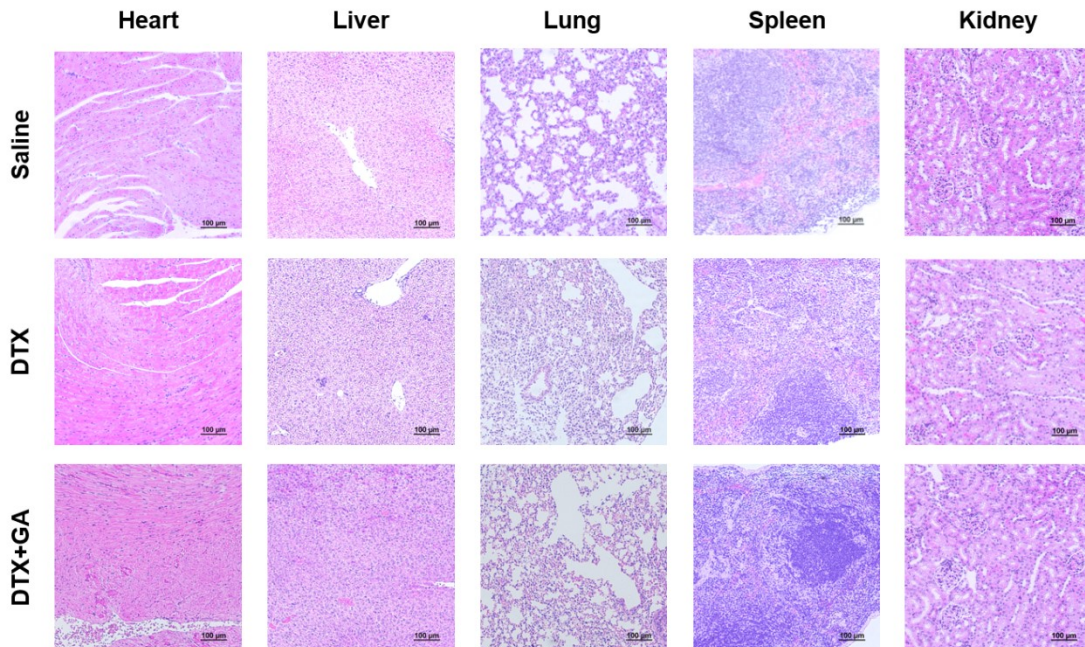

Figure S5. The HE staining of the main organs from tumor-bearing mice treated with indicated stimulus. Scale bar=100 μm.