554 Supplemental Table 1. Primer sets used for real time PCR analysis.

Gene	Symbol	Reference Sequence	Assay number*
DNA damage inducible transcript 3 (*CHOP*)	*DDIT3*	NM_001195053	Hs00358796_g1
Activating transcription factor 4	*ATF4*	NM_001675	Hs00909569_g1
Glyceraldehyde-3-phosphate dehydrogenase	*GAPDH*	NM_001256799	Hs02758991_g1

555 * Manufacturer: Applied Biosystems (Foster City, CA)

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Supplemental Table 2. Drugs with dose dependent or combined survival effect against oxidative stress and/or UPR.

Drug	Drug concentration (% increased survival*)	Conditioning	Drug category
Atazanavir	100μM (49.27 %)	H_2O_2	Protease inhibitor
	20μM (25.03 %)	H_2O_2	
Cimaterol	100μM (33.28 %)	H_2O_2	Beta-adrenergic agonist
	20μM (87.32 %)	H_2O_2	
L-(+)- Epinephrine tartrate	100μM (43.94 %)	H_2O_2	Catecholamine
	20μM (34.74 %)	H_2O_2	
Ergothioneine	20μM (60.49 %)	H_2O_2	Thiourea derivative of histidine
	100μM (27.50 %)	Thapsigargin	
Finasteride	100μM (35.63 %)	H_2O_2	5-alpha-reductase inhibitor
	20μM (48.60 %)	H_2O_2	
Ketoprofen	100μM (41.73 %)	H_2O_2	Propionic acid derivatives (NSAID^)
	20μM (29.73 %)	H_2O_2	
Mefenamic acid	100μM (98.35 %)	H_2O_2	Fenamic acid derivatives (NSAID)
	100μM (27.52 %)	Thapsigargin	
Nimesulide	20μM (84.02 %)	H_2O_2	Selective COX-2 inhibitor (NSAID)
	20μM (25.49 %)	Thapsigargin	
Moxifloxacin	100μM (47.20 %)	H_2O_2	Fluoroquinolone
	20μM (66.16 %)	H_2O_2	
Nedaplatin	100μM (83.09 %)	H_2O_2	Platinum compound
	20μM (33.00 %)	H_2O_2	
Nicergoline	20μM (43.21 %)	H_2O_2	Ergot derivative
	20μM (30.42 %)	Thapsigargin	
Oxotremorine	100μM (35.44 %)	H_2O_2	Muscarinic receptor agonist
	20μM (27.07 %)	Thapsigargin	
Procainamide	100μM (92.45 %)	Thapsigargin	Sodium channel blocker
	20μM (31.81 %)	Thapsigargin	
Retinoic acid	100μM (92.16 %)	H_2O_2	Vitamin A
	20μM (66.48 %)	H_2O_2	

Stanozolol	100μM (80.48 %)	H_2O_2	Dihydrotestosterone derivative
	20μM (26.00 %)	H_2O_2	
(s)-(-)-Sulpride	100μM (47.26 %)	H_2O_2	Benzamide
	20μM (31.58 %)	H_2O_2	
Terazosin	100μM (63.75 %)	H_2O_2	Alpha 1 adrenergic antagonist
	20μM (25.85 %)	H_2O_2	
(+)-Tubocurarine chloride	100μM (37.86 %)	H_2O_2	Non-depolarizing neuromuscular blocker
	20μM (28.19 %)	H_2O_2	
Vidarabine	100μM (61.78 %)	H_2O_2	Adenine arabinoside
	20μM (83.37 %)	H_2O_2	

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559 *increased luminescence (cell survival) compared to no drug treated controls exposed to H_2O_2 or

560 thapsigargin.

561 ^Non-steroidal anti-inflammatory drug

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563 **Supplemental Figure Legend:**

564 Supplemental Figure. Cytotoxic effects of H_2O_2 (A) and thapsigargin (B) in cultured bovine corneal
565 endothelial cells. Lethal dose 50 for H_2O_2 and thapsigargin were 0.6 mM and 25.6 μM, respectively.
566 Results are expressed as mean ± SD.

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Supplemental Figure.