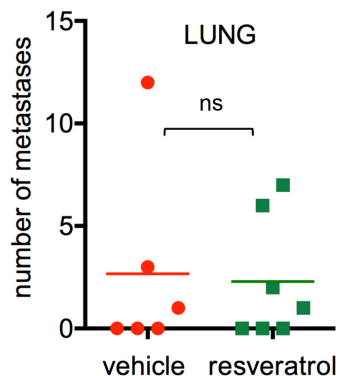
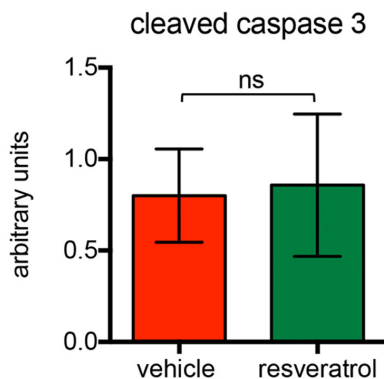


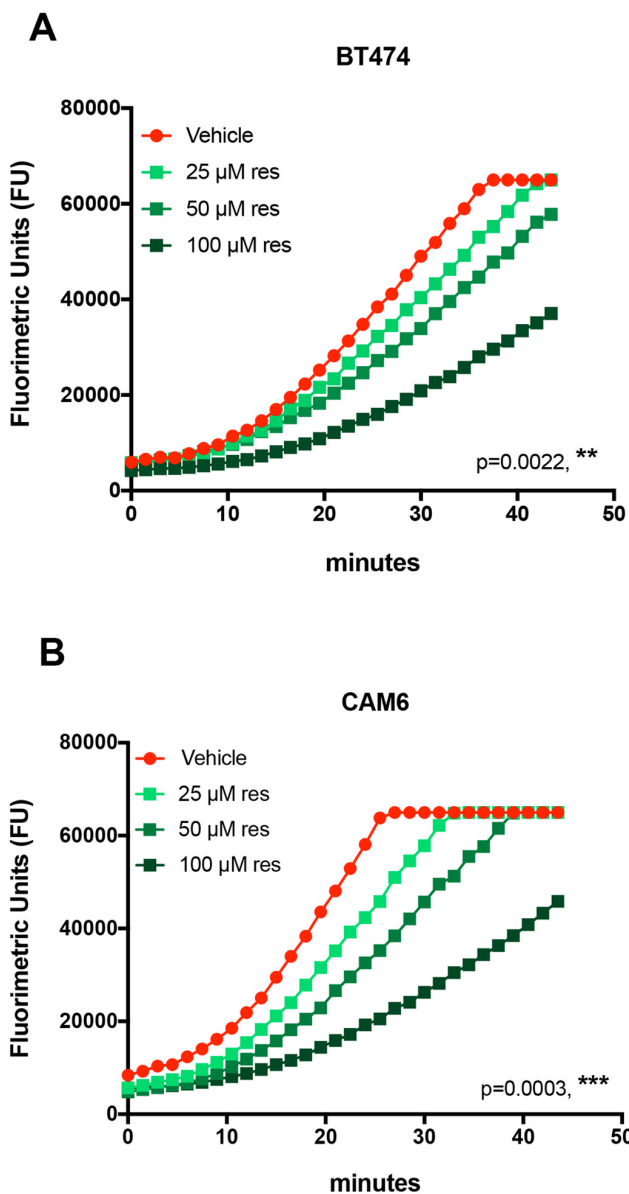
SUPPLEMENTARY MATERIAL



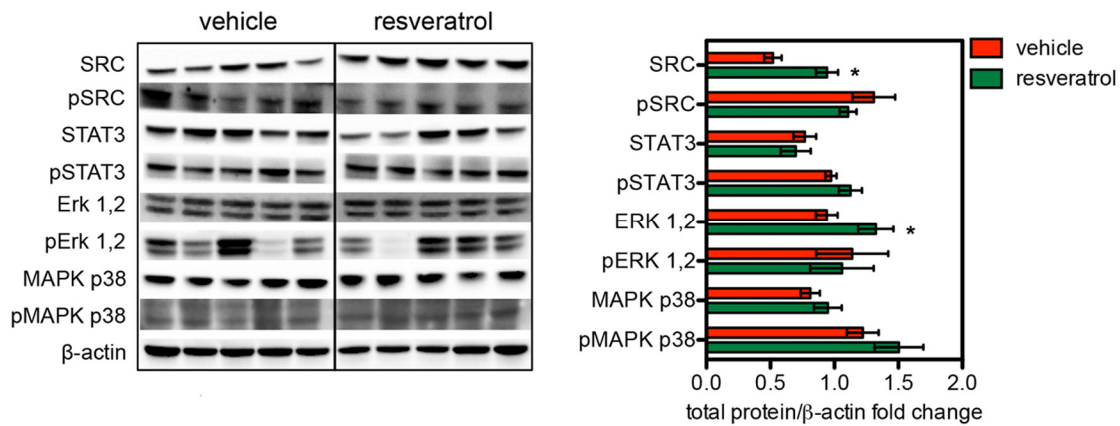
Supplementary Figure 1. Quantization of lung metastases from control and resveratrol supplemented mice. The data presented are the number of lung metastases observed in individual mice, killed at 23-weeks of age (experimental end point). The horizontal bars represent the median value for each group ($p=0.8628$).



Supplementary Figure 2. Analysis of apoptotic cells in control and resveratrol treated tumors. Quantification of cleaved caspase-3 positive cells was determined by IHC as described in the experimental section. Results are represented as means \pm SEM from 5 \times 400 microscopic fields per tumor ($n=10$). Each group was compared to control ($p=0.9134$, unpaired two-tailed t test).



Supplementary Figure 3. Resveratrol inhibits the activity of the 20S proteasome in CAM6 and BT474 cell-free extracts. Cell extracts were pre-incubated with different concentrations of resveratrol or with the vehicle DMSO. The chymotrypsin-like activity of the 20S proteasome was measured in the extracts by addition of the fluorogenic peptide as described in Materials and Methods and expressed as fluorimetric units (FU) $\text{min}^{-1} \text{mg}^{-1}$. Statistics: one-way ANOVA



Supplementary Figure 4. Resveratrol supplementation does not activate the $\Delta 16$ HER2/Src/STAT3 axis. Representative western blot analysis of $\Delta 16$ HER2 downstream signaling pathways in spontaneous mammary tumors from $\Delta 16$ HER2 mice, treated or not with resveratrol (left panel), and densitometry quantification from three independent experiments (right panel). Tumor extracts were probed with antibodies to Src, pSrc, STAT3, pSTAT3, Erk, pErk, MAPK p38, pMAPK p38 and β -actin (loading control). The significance was determined by t-test (* $p < 0.05$).

Supplementary Table 1. List of the used antibodies.

PRIMARY ANTIBODIES				
Antigen	Antibody	Application	Dilution	Brand
Phospho-HER2	rabbit monoclonal anti-phospho HER2/ErbB2 (Tyr1248)	WB	1:1000	Cell Signaling Technology
HER2	rabbit monoclonal anti-HER2/ErbB2			
	rabbit polyclonal anti-neu	IF	1:50	Santa Cruz
P53	rabbit polyclonal anti-p53	WB	1:1000	
Phospho-SRC	rabbit monoclonal anti-phospho SRC (Tyr416)	WB	1:1000	Cell Signaling Technology
SRC	rabbit monoclonal anti-SRC			
Phospho-STAT3	mouse monoclonal anti-phospho STAT3 (Tyr705)			
STAT3	rabbit monoclonal anti-STAT3			
Phospho-MAPK p38	rabbit monoclonal anti-phospho MAPK p38 (Thr 180/Tyr 182)			
MAPK p38	rabbit monoclonal Anti-P38			
Phospho-ERK 1,2	rabbit monoclonal anti-phospho ERK1/2 p44/42 (Thr202/Tyr204)			
ERK 1,2	rabbit monoclonal anti- ERK1/2 p44/42			
Phospho-AKT	rabbit monoclonal anti-phospho AKT (Ser473)			
AKT	rabbit monoclonal anti-AKT			
P110α PI3k	rabbit monoclonal anti-p110 α			
β-actin	rabbit monoclonal anti- β -actin			
PTEN	rabbit monoclonal anti-PTEN			
Phospho-PTEN	rabbit monoclonal anti-phospho PTEN (Ser 380, Thr 382, Thr 383)			
HER3	rabbit monoclonal anti-HER3			
Phospho-HER3	rabbit monoclonal anti-phospho HER3 (Tyr1289)			
mTOR	rabbit monoclonal anti- mTOR			

Phospho-mTOR	rabbit monoclonal anti-phospho mTOR (Ser 2448)			
	rabbit monoclonal anti-phospho mTOR (Ser 2481)			
Rictor	rabbit monoclonal anti-rictor			
Phospho-p70S6K	rabbit monoclonal anti-phospho p70S6K (Thr 389)			
Phospho-E4BP1	rabbit monoclonal anti-phospho E4BP1 (Thr37/46)			
Raptor	rabbit monoclonal anti-raptor			
P85-PI3k	rabbit monoclonal anti-p85	WB	1:1000	Epitomics
ERα	mouse monoclonal anti-ER α	WB	1:1000	ORIGENE
PCNA	rabbit monoclonal anti-PCNA	IHC	1:200	Dako
Cleaved caspase-3	rabbit anti-cleaved caspase-3	IHC	1:30	R&D Systems
20S Proteasome	rabbit polyclonal anti 20S subunits	WB	1:1000	Enzo Life Science
Ubiquitin	rabbit polyclonal anti ubiquitin	WB	1:1000	kindly provided by Prof. AL Haas
SECONDARY ANTIBODIES				
Antibody	Application	Dilution	Brand	
HRP-conjugated goat anti-mouse IgG (H&L)	WB	1:3000	Calbiochem	
HRP-conjugated goat anti-rabbit IgG (H&L)	WB	1:20000	Sigma-Aldrich	
Biotin-conjugated goat anti-rabbit IgG (H&L)	IHC	1:200	Bethyl Laboratories	
Alexa Fluor® 488-conjugated goat anti-rabbit IgG (H&L)	IF	1:100	Life Technologies	