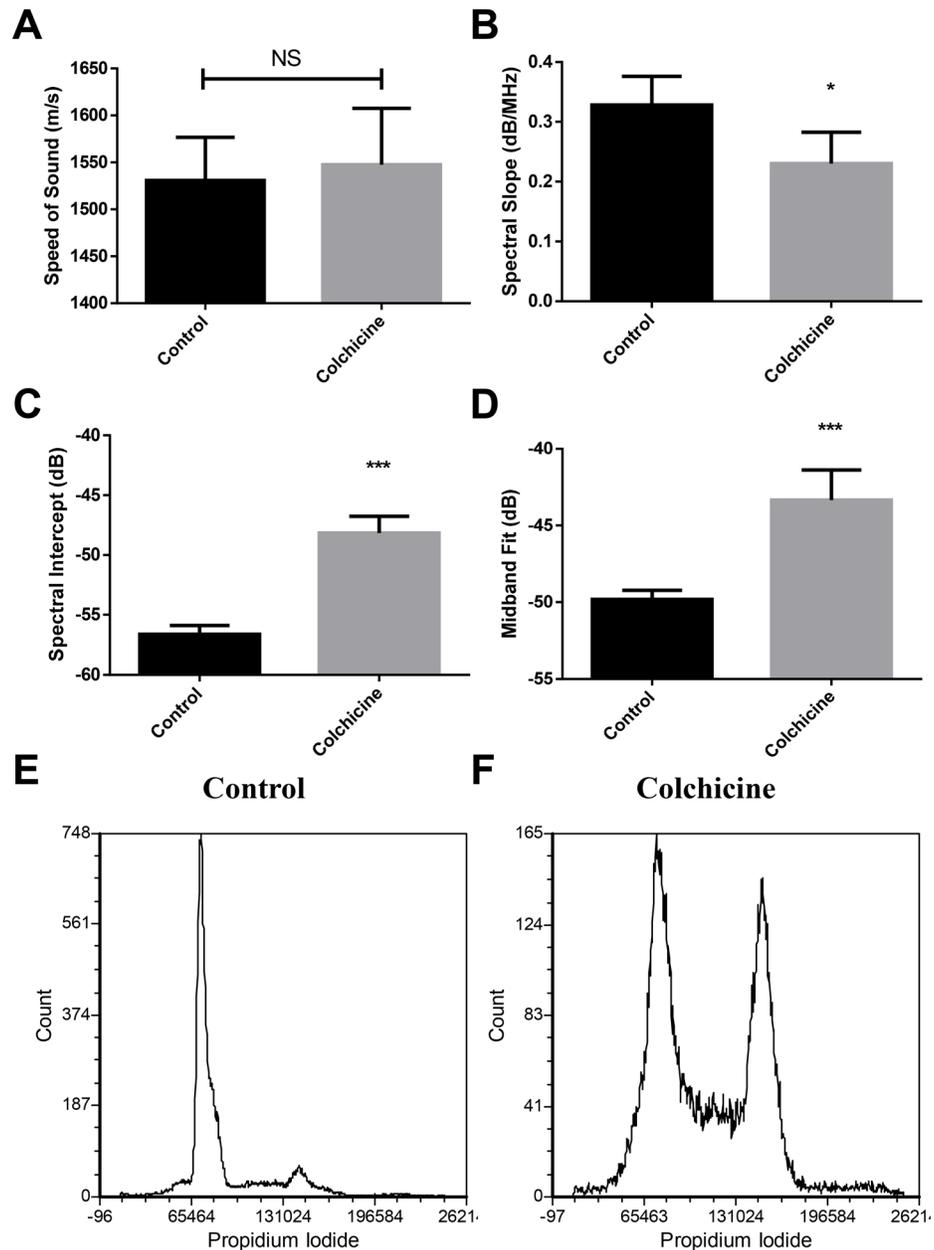
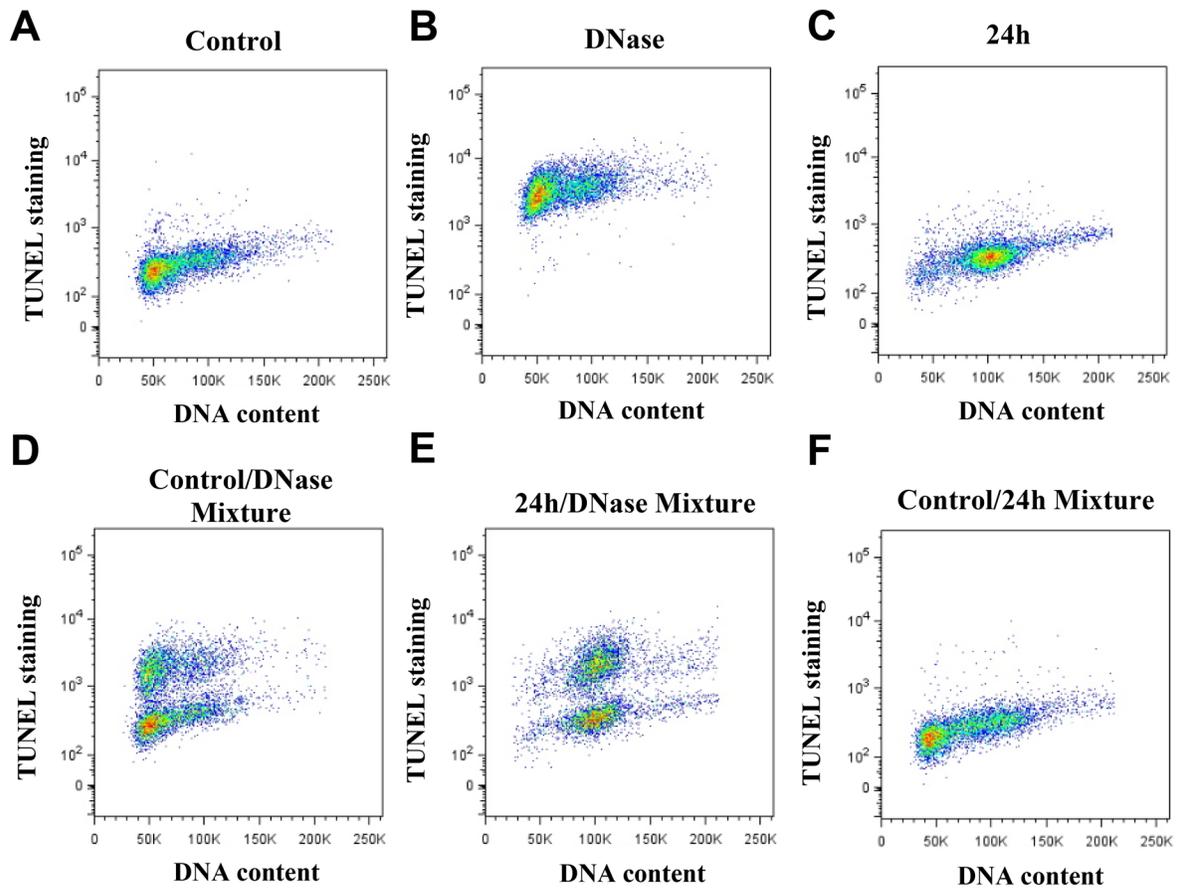


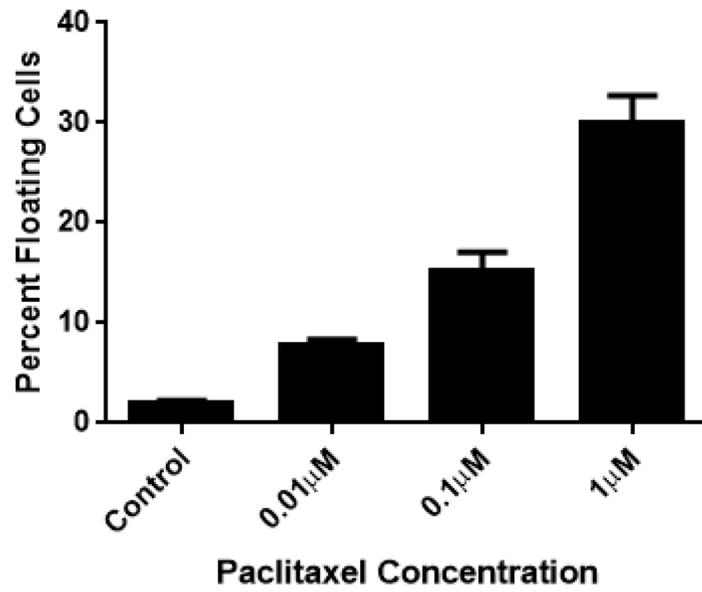
SUPPLEMENTARY FIGURES



Supplementary Figure S1: Spectral ultrasound and cell cycle changes from 24-hour colchicine-induced mitotic arrest in AML5 cells. Ultrasound parameters **A**. speed of sound, **B**. spectral slope, **C**. spectral intercept, and **D**. midband fit demonstrated similar trends to those observed for MDA-MB-231 cells. Measurements were performed using a transducer with a 20 MHz central frequency. Cell cycle profiles for **E**. untreated control and **F**. 24-hour colchicine observably demonstrated an increase in G2/M content populations, indicative of mitotic arrest. Error bars represent standard deviation. $n \geq 3$ for all conditions. NS (not significantly different), * ($p < 0.05$), *** ($p < 0.001$).



Supplementary Figure S2: Flow cytometric analysis of TUNEL staining. A. untreated MDA-MD-231 cells; B. MDA cells treated with DNase; C. 24-hour paclitaxel-treated MDA cells; D. a 1:1 mixture of untreated and DNase treated cells; E. a 1:1 mixture of paclitaxel and DNase treated cells; and F. a 1:1 mixture of paclitaxel treated and untreated MDA cells.



Supplementary Figure S3: Determination of a paclitaxel concentration to induce appropriate amounts of cell death after 24 hours. Floating cells were presumed to be non-viable and taken to represent the expected minimum number of cells undergoing cell death in subsequent flow cytometry death analysis. Bars represent standard deviation. n=4 per condition.