Supplemental Information for:

Cytosolic Ca\textsuperscript{2+} transients during pulsed focused ultrasound generate reactive oxygen species and cause DNA damage in tumor cells

Robert B. Rosenblatt\textsuperscript{1}, Joseph A. Frank\textsuperscript{1, 2}, and Scott R. Burks\textsuperscript{1,*}

\textsuperscript{1}Frank Laboratory, Department of Radiology and Imaging Sciences, NIH Clinical Center, Bethesda, MD, 20892

\textsuperscript{2}National Institute of Biomedical Imaging and Bioengineering, Bethesda, MD 20892

*Address Correspondence to:

Scott R. Burks, Ph.D.

10 Center Dr., RmB1N256

Bethesda, MD 20892

Ph: (301) 594-2368

scott.burks@nih.gov
Supplemental Figure 1. Means and variance of cell diameters to estimate intracellular volumes. Diameters (n = 100 per cell type) were measured across 3 plates of cells for each type and then used to calculate spherical volumes of cells using the equation: \( V = \frac{4}{3} \pi r^2 \) where \( V \) is volume in \( \mu m^3 \) and \( r \) is radius in \( \mu m \).
Supplemental Figure 2. mtTEMPOL neutralizes superoxide formation following pFUS to tumor cells. Cells were given pFUS in the presence or absence of mtTEMPOL (20 µM) and allowed to incubate for 2 hr before live cell imaging on an epifluorescent microscope. Measurements were repeated in triplicate with similar results.