SUPPLEMENTARY MATERIALS FOR:

DUAL OXIDASE-INDUCED SUSTAINED GENERATION OF HYDROGEN PEROXIDE CONTRIBUTES TO PHARMACOLOGICAL ASCORBATE-INDUCED CYTOTOXICITY

by

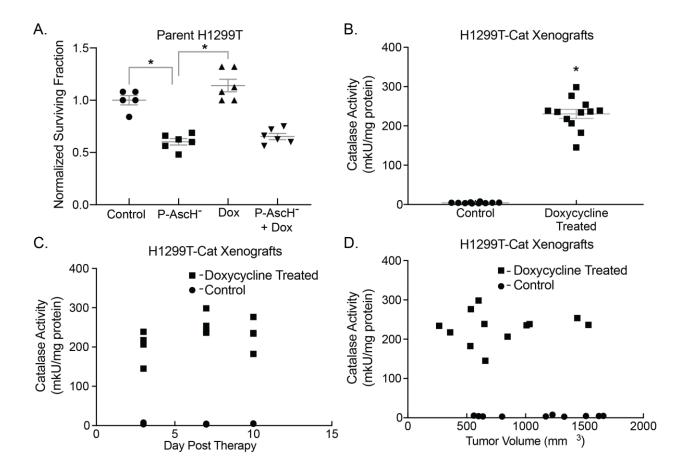
Adrienne R. Gibson¹, Brianne R. O'Leary², Juan Du², Ehab H. Sarsour³, Amanda L. Kalen¹, Brett A. Wagner¹, Jeffrey M Stolwijk¹, Kelly Falls-Hubert¹, Matthew S. Alexander², Rory S. Carroll², Douglas R. Spitz¹, Garry R. Buettner¹, Prabhat G. Goswami¹, and Joseph J. Cullen^{1,2}

¹From the Free Radical and Radiation Biology Division, Department of Radiation Oncology ²Department of Surgery, The University of Iowa Carver College of Medicine, Iowa City, Iowa

³Kansas City University of Medicine and Biosciences³, Kansas City, MO

*Corresponding Author Joseph J. Cullen, M.D. 1528 JCP, Univ. of Iowa Hospitals and Clinics Iowa City, IA 52242. Joseph-cullen@uiowa.edu W: (319) 353-8297, Fax: (319) 356-8378.

Supplemental Figure 5



Supplemental Figure 5. H1299T-CAT cells overexpress catalase in vivo.

- A. Parental H1299T cells display a decrease in clonogenic cell survival when treated with P-AscH⁻. The decrease is not reversed with the addition doxycycline (Means \pm SEM, n = 5 per group, *p < 0.05 vs. control, ANOVA with Tukey's multiple comparisons).
- **B.** Average catalase activity from tumors show that mice treated with doxycycline have increased catalase expression (Means \pm SEM, n = 6 per group, *p < 0.05 vs. control, 2-tailed student's t-test).
- C. Mice treated with doxycycline throughout the experimental time course showed increased tumor catalase activity (n = 6 mice per group).
- **D.** Varying tumor volumes in mice treated with doxycycline display increased catalase activity compared to control treated mice (n = 6 per group).