

Title: Resveratrol Sensitizes AML Cells to HDAC Inhibitors via ROS-Mediated Activation of the Extrinsic Apoptotic Pathway

Authors: Alae Yaseen, Shuang Chen, Stefanie Hock, Roberto Rosato, Paul Dent, Yun Dai, Steven Grant

Journal Title: Molecular Pharmacology

Supplemental Figure S2. The ROS scavenger MnTBAP prevents mitochondrial injury and activation of the caspase cascade. (A-B) U937 cells were treated with 50 μ M resveratrol +/- 15 nM LBH-589 or 1.5 μ M vorinostat in the absence or presence of 400 μ M MnTBAP for 24 hr, after which loss of mitochondrial membrane potential (“low” $\Delta\psi_m$) was determined by DiOC₆ staining and flow cytometry. Values = the means \pm S.D. for triplicate determinations performed on three separate occasions (* P < 0.05, ** P < 0.01 vs. each agent alone). (B) Alternatively, cells were lysed and subjected to Western blot analysis to monitor cleavage of caspase-3 and PARP. Each lane was loaded with 30 μ g of protein; blots were stripped and re probed with β -actin to ensure equivalent loading and transfer. CF = cleaved fragment. (C) U937 cells were exposed to 50 μ M resveratrol +/- 1.5 μ M vorinostat for the indicated intervals, after which flow cytometry was performed to analyze cell cycle distribution after PI staining, and data was then quantified.

Supplemental Figure S2

