Supporting information

Imidazolium derived ionic salts induce inhibition of cancerous cell growth through apoptosis

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NCI-60 Human Tumor Cell Line Screen: Details of the methodology are described at http://dtp.nci.nih.gov/branches/btb/ivclsp.html. Briefly, the panel is organized into nine subpanels representing diverse histologies: leukemia, melanoma, and cancers of lung, colon, kidney, ovary, breast, prostate, and central nervous system. The cells are grown in supplemented RPM1 1640 medium for 24 h. The test compounds were dissolved in DMSO and incubated with cells at five concentrations with 10-fold dilutions, the highest being 10^{-4} M and the others being 10^{-5}, 10^{-6}, 10^{-7}, and 10^{-8} M. The assay is terminated by addition of cold trichloroacetic acid, and the cells are fixed and stained with sulforhodamine B. Bound stain is solubilized, and the absorbance is read on an automated plate reader. Percentage growth inhibition (GI_{50}) is calculated from time zero, control growth, and the five concentration level absorbance. The inhibitory concentrations (LC_{50}) represent the average of two independent experiments.

Interpretation of One-Dose Data: The One-dose data of all the compounds is reported as a mean graph of the percent growth of treated cells and will be similar in appearance to

mean graphs from the 5-dose assay. The number reported for the One-dose assay is growth relative to the no-drug control, and relative to the time zero number of cells. This allows detection of both growth inhibition (values between 0 and 100) and lethality (values less than 0). For example, a value of 100 means no growth inhibition. A value of 40 would mean 60% growth inhibition. A value of 0 means no net growth over the course of the experiment. A value of -40 would mean 40% lethality. A value of -100 means all cells are dead. The one-dose data of all the four compounds is given in Figure 1-4, respectively.

The drug response curves from the five-dose data of these four compounds are given in Figure 5-8 respectively for all NCI-60 tumor cell lines.

Figure 1: One dose mean graph for NSC747267 at 10μM

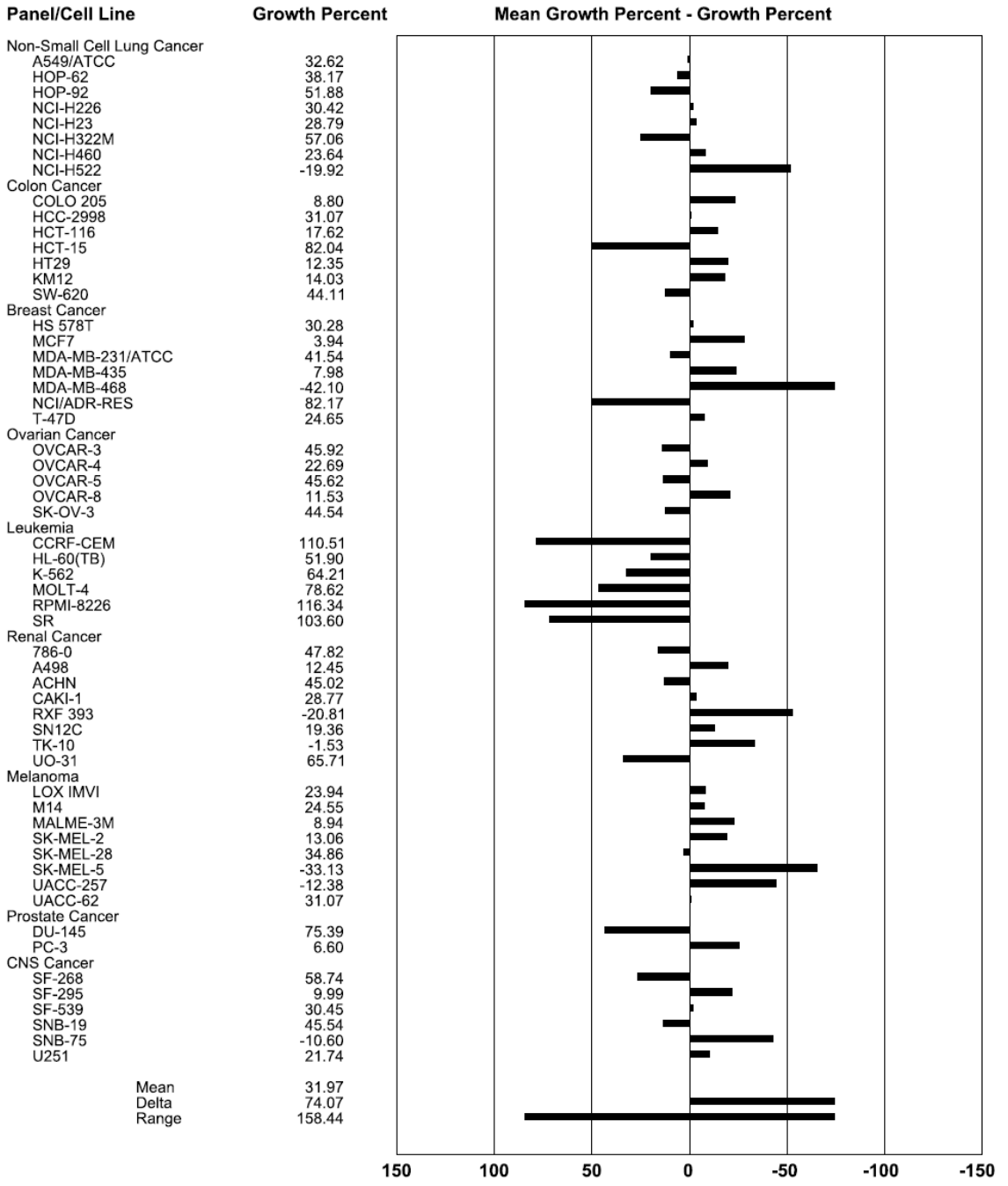

Figure 2: One dose mean graph for NSC747260 at 10μM

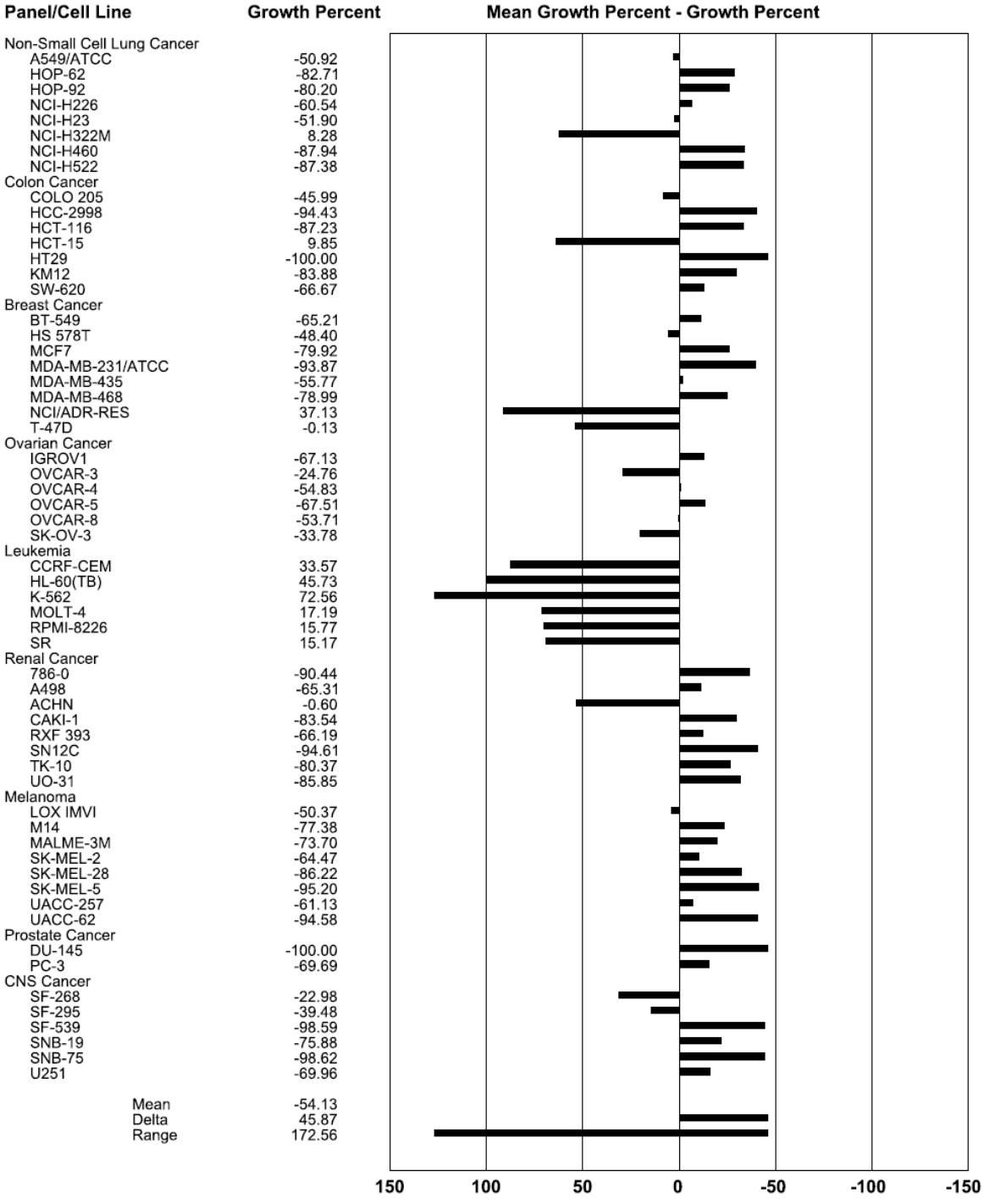

Figure 3: One dose mean graph for NSC747269 at 10μM

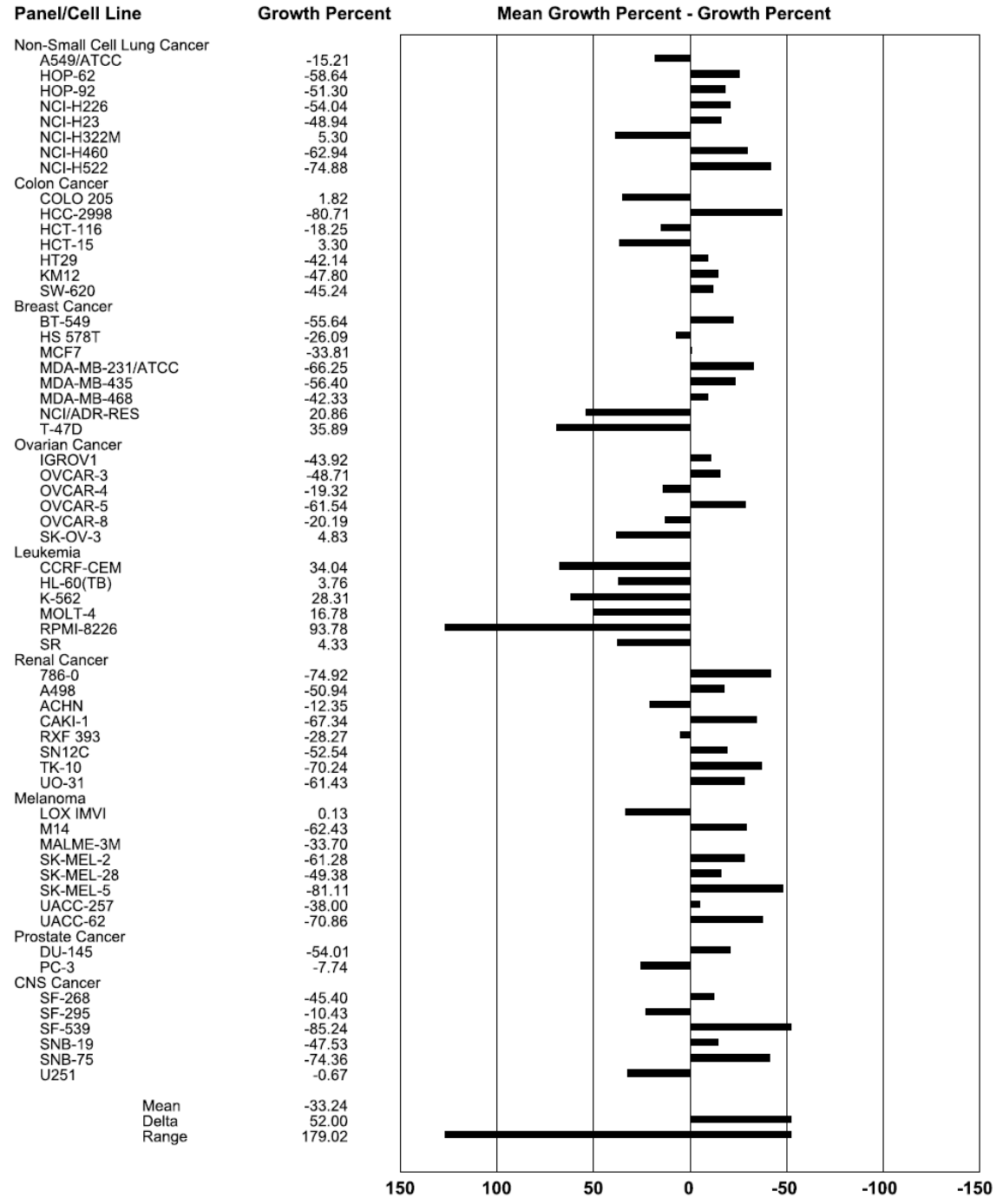

Figure 4: One dose mean graph for NSC747271 at 10μM

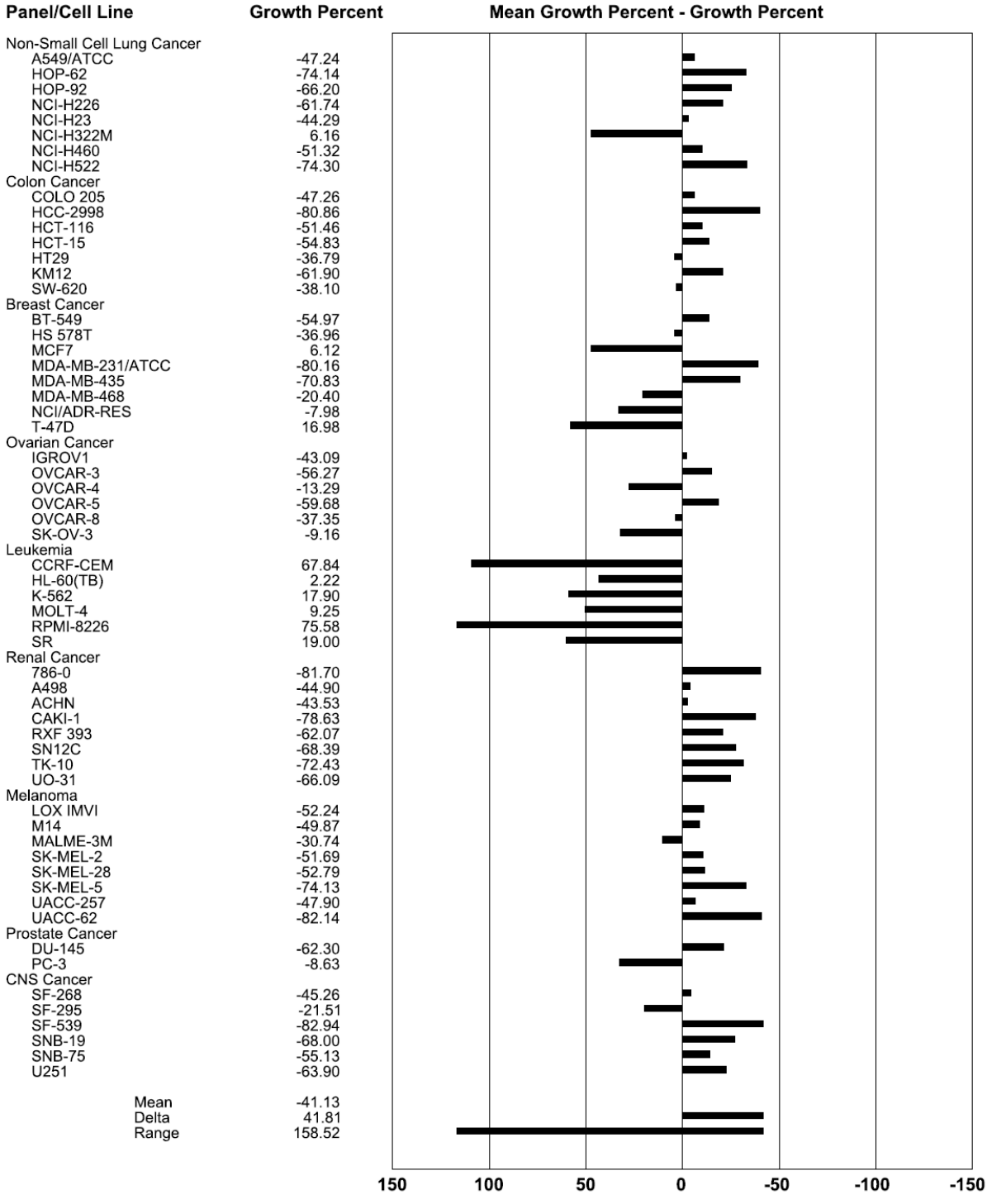

Figure 5: Drug response curves for NSC747267.

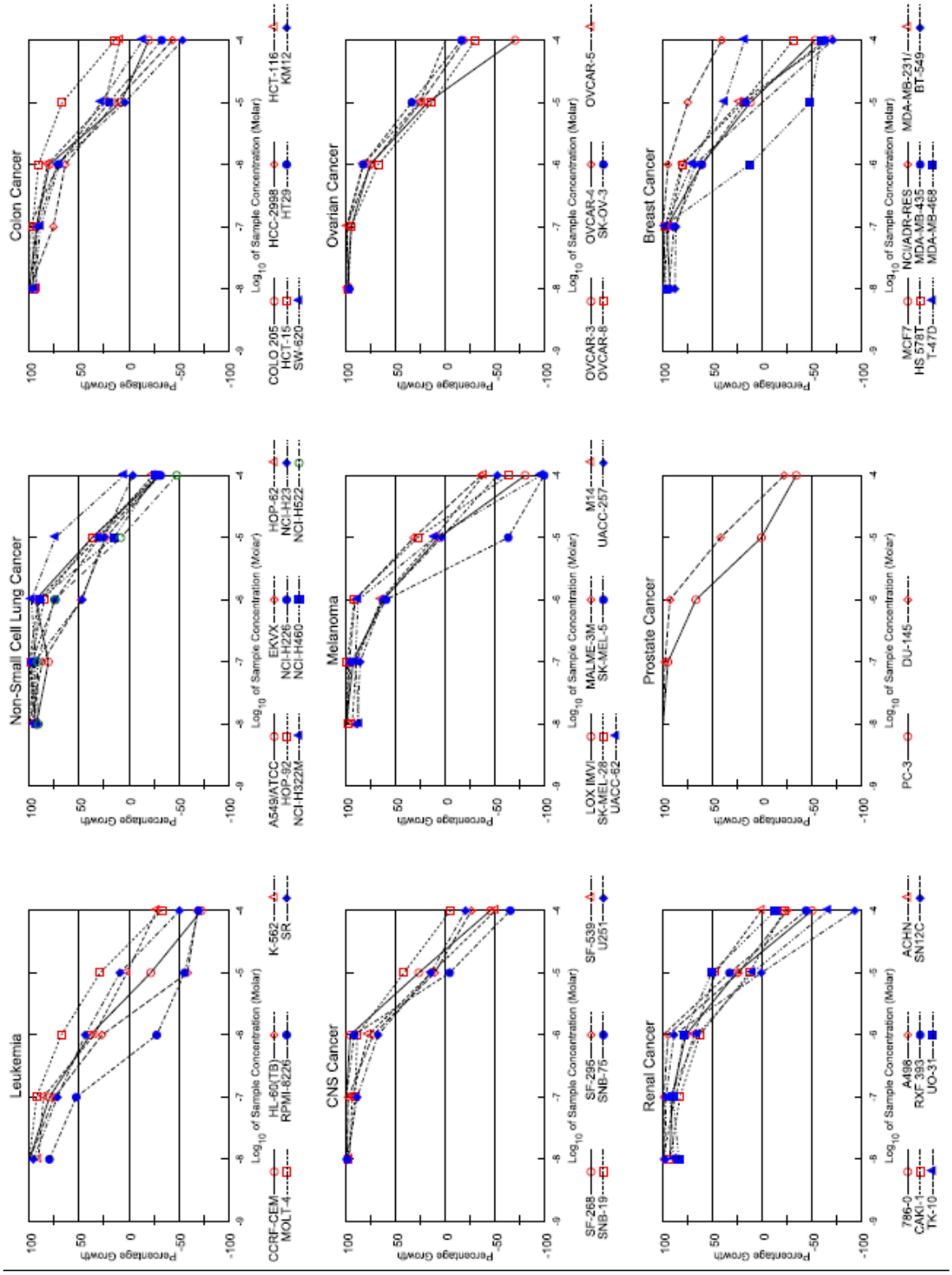

Figure 5: Drug response curves for NSC747260.

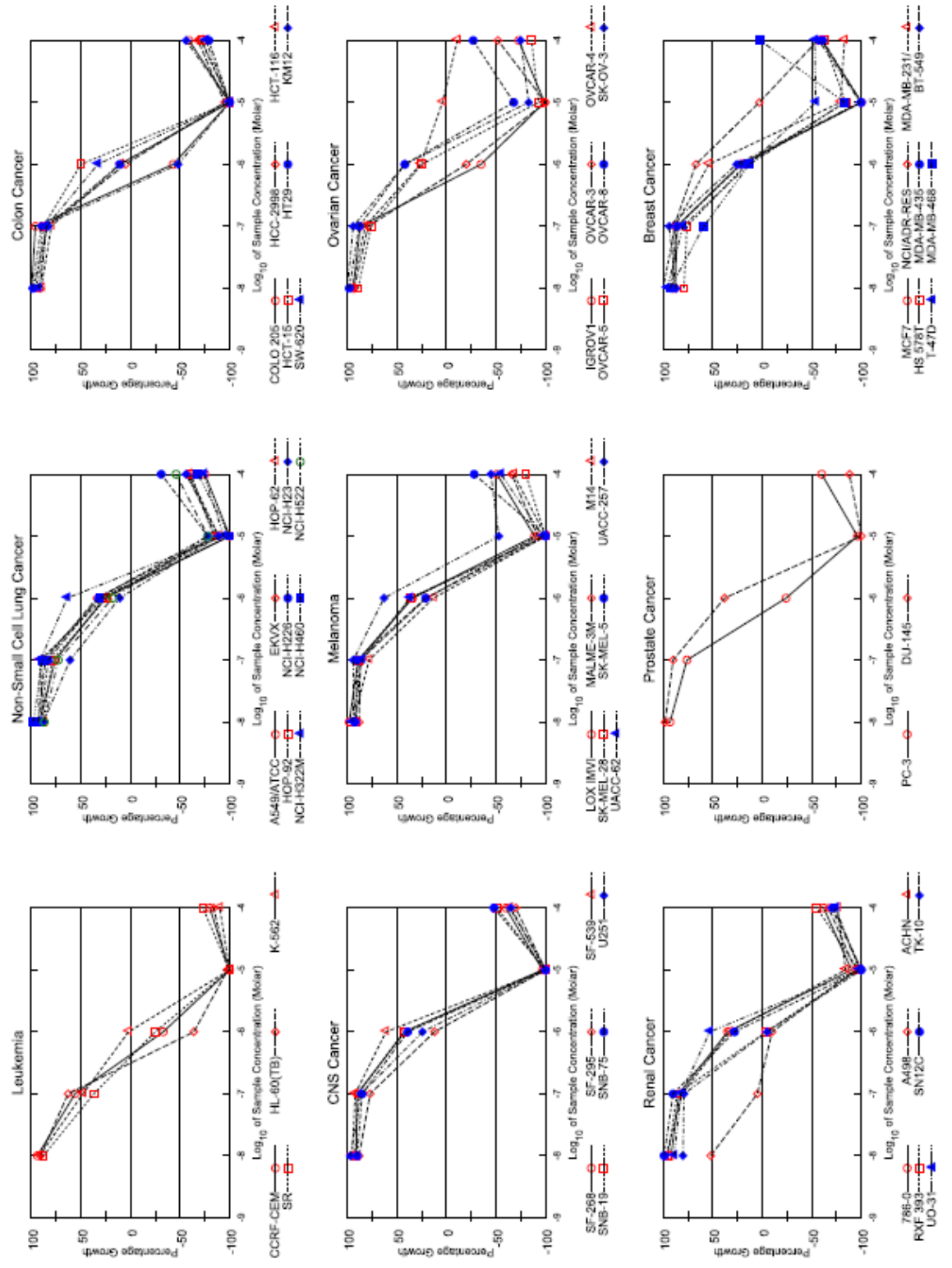

Figure 7: Drug response curves for NSC747269.

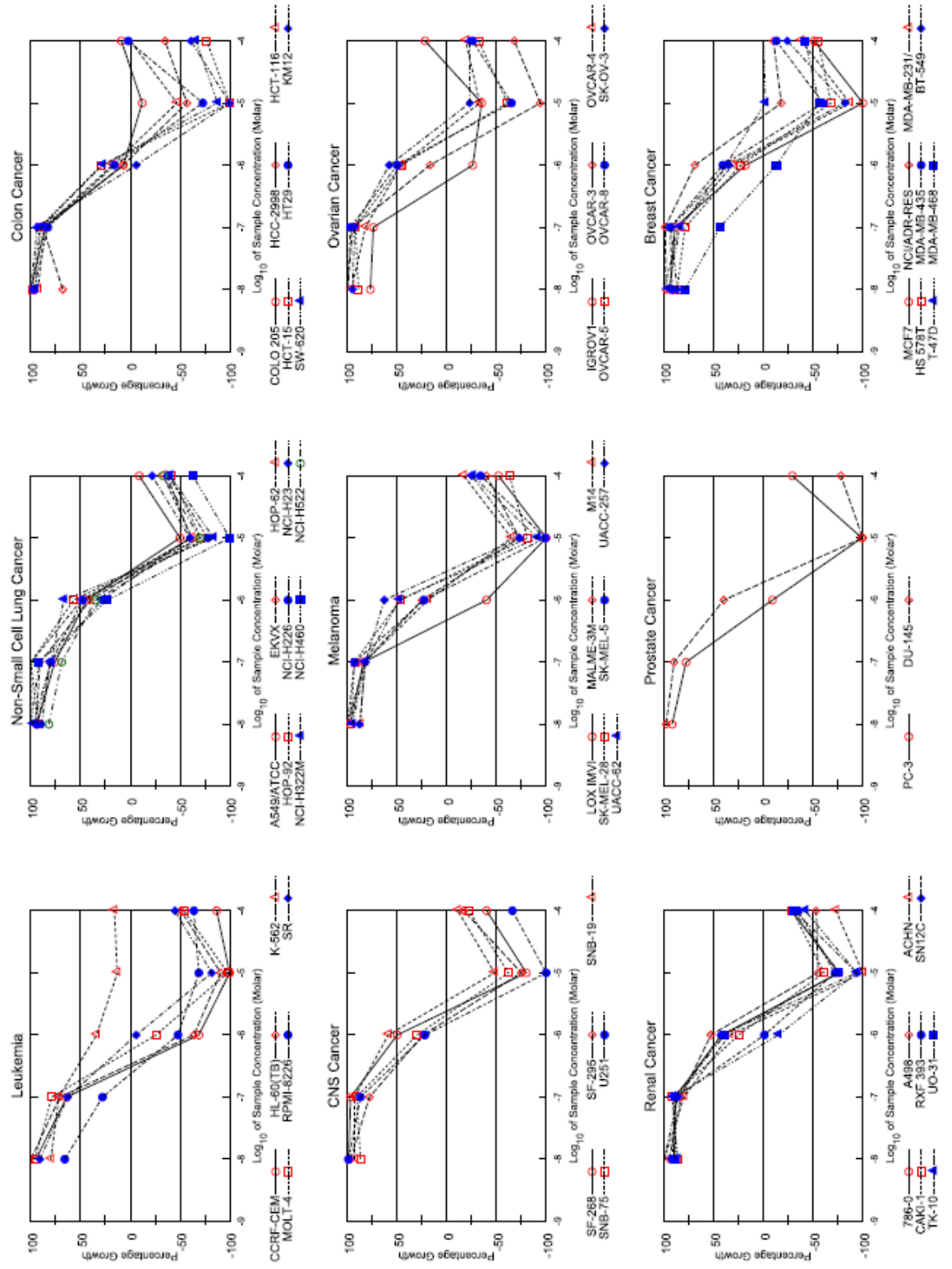

Figure 8: Drug response curves for NSC747271