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Therapy for Atypical Teratiod/Rhabdoid Tumor

The purpose of my experiment was to test SNDX-275 and decitabine on the BT-12 AT/RT cell line and examine the effects of the drugs over the course of two experiments. In the first of these two experiments, I tested different concentrations of SNDX-275 on the AT/RT cells to test the growth capacity of the cells with HDAC inhibitors on them. I first plated 10,000 tumor cells per well for 6 wells. I applied the 5 micro molar concentrations to two wells, the 1 micro molar concentration to two wells and my control media (with DMSO) to 2 wells. My hypothesis was that the highest concentration would inhibit the cells the most and limit the growth of the cancer cells. It turned out that my prediction was correct. The 5 micro molar concentration for the cells worked the best. The second experiment's goal was to see how the drugs affected the colony formation of the cells. I used a control media (DMSO), SNDX-275, decitabine, and a combination of the SNDX-275 and decitabine. I plated 500 cells per well on this experiment. I was hoping that the combination would work the best. The results were very intriguing. The SNDX-275 and DMSO plates grew just as expected. But any plate that the decitabine had touched had no cell colonies. It seemed like the decitabine had wiped out the AT/RT cells. This would require future study to confirm. Overall, from the acceptable data gathered, I concluded that AT/RT cells are most affected by high concentrations of SNDX-275 and possibly very sensitive to decitabine.