20th World Congress on Pediatrics and Adolescent Medicine & 20th World Congress on PEDIATRIC ONCOLOGY AND NURSING

September 17-18, 2018 | Philadelphia, USA

Effect of CBD extract on malignant lymphoblastic disease

Tori Strong Vyripharm Biopharmaceuticals, USA

E (MCL) represent the most common and most aggressive forms of Non-Hodgkin lymphoma (NHL) respectively. Previous work has demonstrated CB1 antagonists as potential therapeutics for both DLBCL and MCL. Cannabidiol (CBD) is a natural cannabinoid analog that has mixed affinity across CB1 and CB2 receptors; known in the literature as a CB1 antagonist. Our previous work has demonstrated that CB1 antagonists has activity against DLBCL cell lines. Our study is aimed at demonstrating whether CBD has activity in DLBCL and MCL cell lines. Cells from representative DLBCL and MCL cell lines were plated at 5,000 cells per well. The cells were incubated for 72 hours in 20 µL medium with 10% FBS and varied concentrations of CBD oil or dimethylsulfoxide (DMSO). Viability assays were conducted using Celltiter-Glo Luminescent Cell Viability Assay. Experiments were performed 2-3 times independently and each concentration was tested in triplicate. CBD oil effectiveness was demonstrated via viability studies comparing it with CBD-99 CB2 agonist on both DLBCL and MCL cell lines. The data is consistent showing a marked decrease in viability at concentrations of 20µM or greater. In MCL and DLBCL cell lines treated with CBD oil, cells reach 0% of control at 50µM. Most MCL and DLBCL cell lines treated with CBD-99 CB2 agonist reach 0% of control at concentrations of 100µM with many at 0% of control at 50µM.

tstrong@vyripharmbio.com