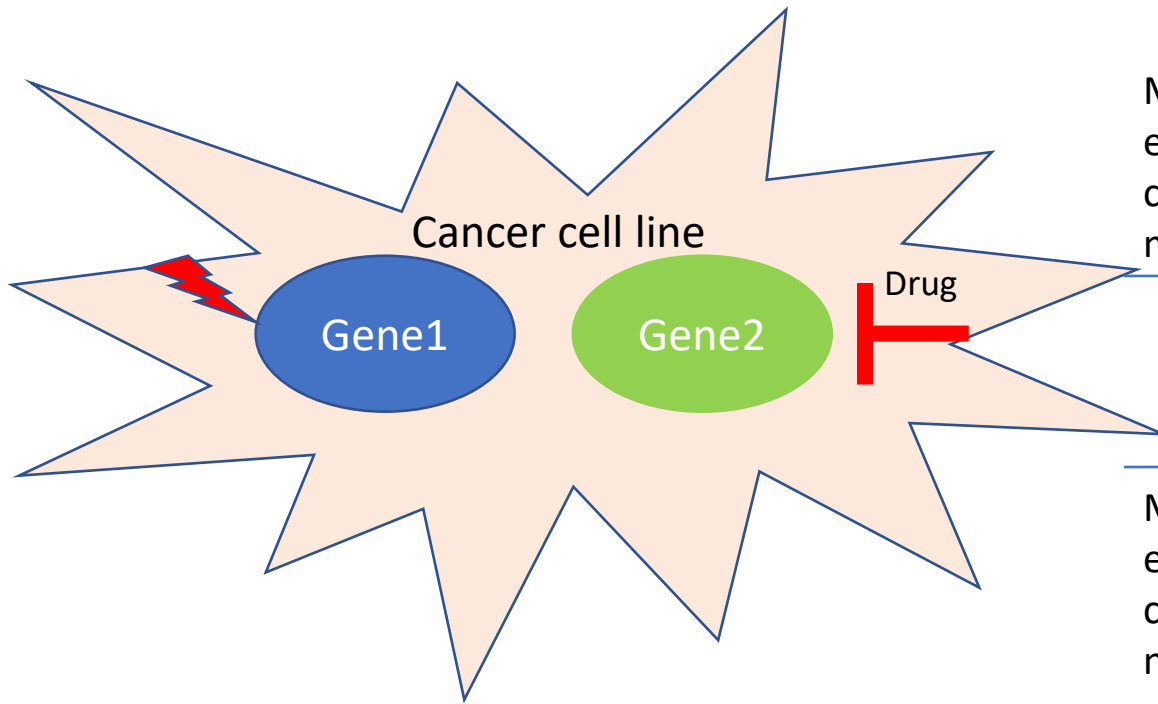
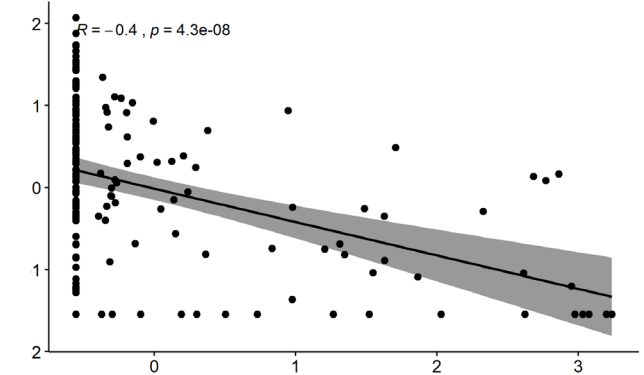


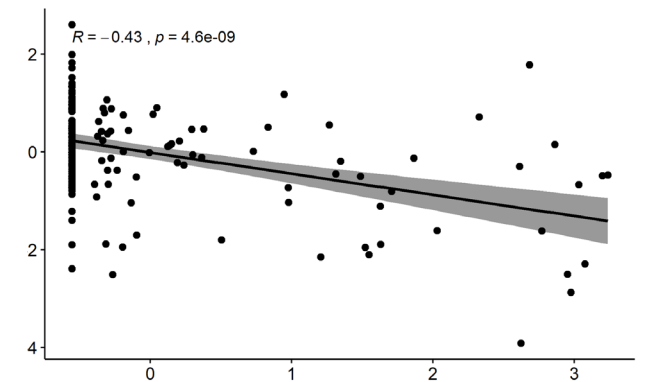
# Gene expression- Drug IC50 correlation in presence of mutation in primary gene



Measure correlation of Gene2 expression and drug IC50 in cancer cell line where Gene1 is mutated



Measure correlation of Gene2 expression and drug IC50 in cancer cell line where Gene1 is not mutated



- ❖ To assess the drug-targetability of the SL gene (gene2) in cancer cell lines where the primary gene (gene1) is mutated, *Gene expression – Drug IC50 correlation* is calculated for Gene2 and the drug targeting Gene2 using the Genomics of Drug Sensitivity in Cancer (GDSC) project data.
- ❖ Cancer cell lines carrying mutation in the primary gene is collected from COSMIC mutation data. Samples are stratified in two groups: with mutation in gene1 and without mutation in gene1.
- ❖ In both of these groups of cell-lines, correlation of expression of SL gene (Gene2) and IC50 of the drug targeting Gene2 is calculated.