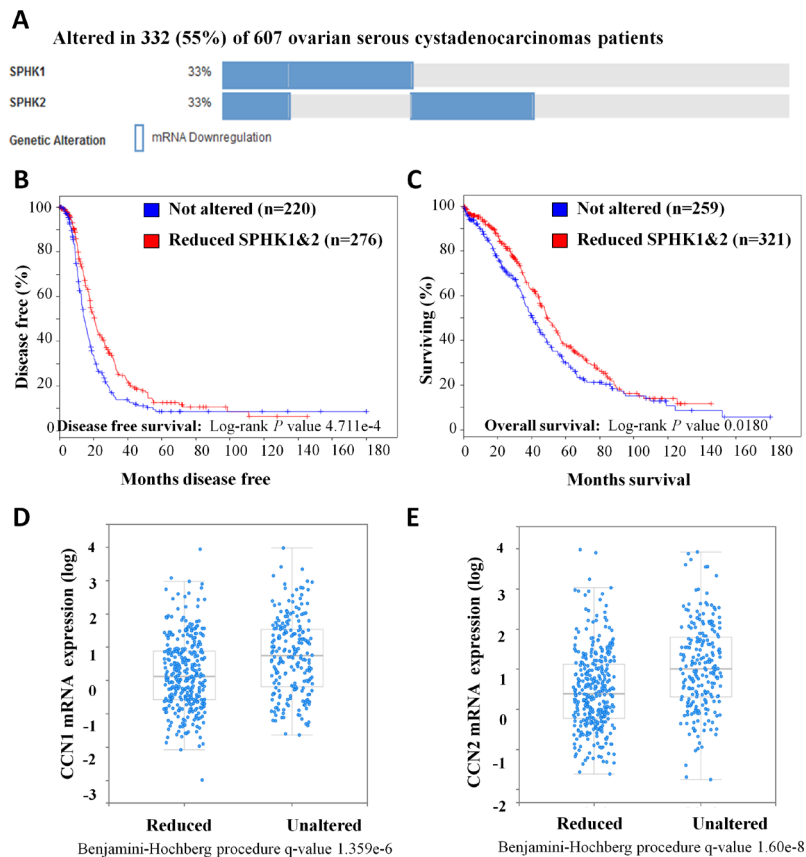
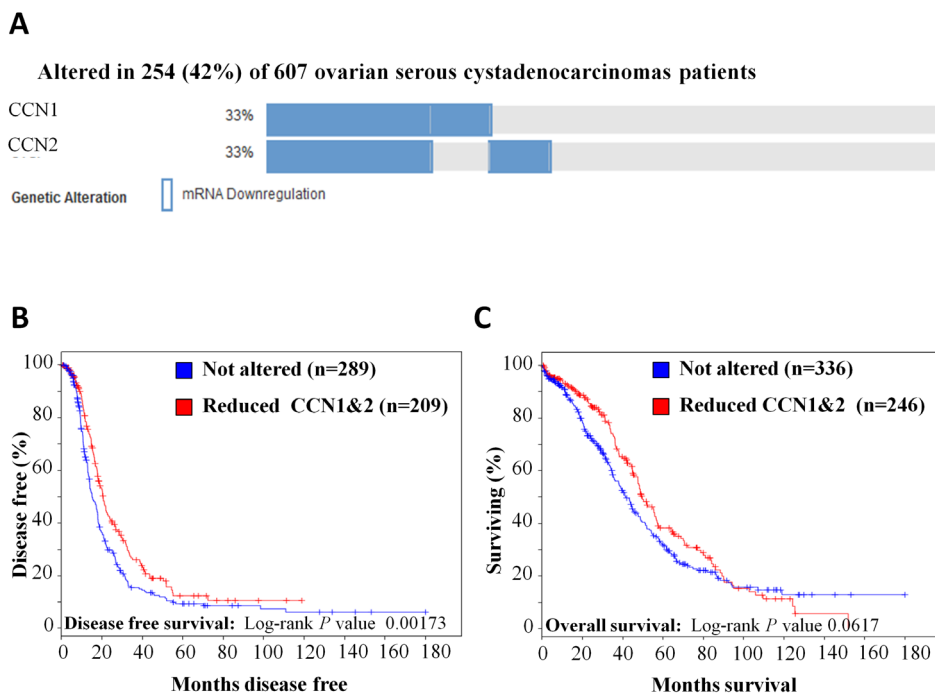


# Sphingosine-1-phosphate promotes ovarian cancer cell proliferation by disrupting Hippo signaling

## SUPPLEMENTARY FIGURES



**Supplementary Figure 1: Reduced SPHK1&2 is associated with elevated disease free survival and elevated overall survival in ovarian serous cystadenocarcinoma samples.** (A) The cBioPortal for Cancer Genomics was used to query serous ovarian cystadenomas from The Cancer Genome Atlas ( $n=607$ ) for down-regulation of SPHK1&2 mRNA lower than the two-thirds. OncoPrint shows cases with reduced mRNA levels of SPHK1 and SPHK2 across all 607 ovarian serous carcinomas. (B-C) Month disease free rate (B) and month overall survival rate (C) between unaltered samples and those with reduced SPHK1&2 are displayed as Kaplan-Meier survival curves with a  $P$  value from a Log-rank test. (D-E) Reduced SPHK1&2 expression contributes to the down-regulation of CCN1/CCN2 mRNA expression in serous ovarian cancers. Enrichment analysis comparing CCN1 mRNA and CCN2 mRNA levels between unaltered samples and those with SPHK1&2 mRNA levels in the lower 1/3 (reduced). Levels of CCN1 mRNA (D) or CCN2 mRNA (E) (from microarray) are displayed as box plots with a  $Q$  value using a Benjamini-Hochberg procedure.



**Supplementary Figure 2: Reduced CCN1/CCN2 expression is associated with elevated disease free survival rate and elevated overall survival rate in ovarian serous cystadenocarcinoma samples.** (A) The cBioPortal for Cancer Genomics was used to query serous ovarian cystadenomas from The Cancer Genome Atlas (n=607) for down-regulation of CCN1/CCN2 mRNA lower than the two-thirds. OncoPrint shows cases with reduced mRNA levels of CCN1 and CCN2 across all of the 607 ovarian serous carcinomas. (B-C) Month disease free rate (B) and month overall survival rate (C) between unaltered samples and those with reduced CCN1/CCN2 are displayed as Kaplan-Meier survival curves with a *P* value using a Log-rank test.