**EP004/#741** DNA METHYLATION LANDSCAPE AS A POTENTIAL PLAYER IN ACQUIRED-DRUG RESISTANCE IN OVARIAN CANCER

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10.1136/ijgc-2022-igcs.95

**Objectives** Most ovarian cancer (OC) patients recur after first-line treatment and develop chemoresistance, highlighting an unmet need for precision medicine in OC. Half of OCs harbor mSWI/SNF chromatin-remodeling complex alterations including 10% in the SMARCA4 gene. Studies to date have suggested that the catalytic subunits of the mSWI/SNF complex, SMARCA2 and SMARCA4, exhibit paralog dependency, and thus present an opportunity for synthetically lethal molecular targeting. The aim of this study is to investigate SMARCA2-dependency in SMARCA4-deficient OCs and to identify synthetic lethal interactions of SMARCA2-protein degradation in these cancers.

**Methods** Using CRISPR-Cas9 lentiviral-transduction targeting the SMARCA4 gene, we developed novel murine syngeneic/isogenic OC cell lines from well-characterized cell lines ID8 and UPK10, and novel electroporation-based genetically engineered mouse model-derived cell line 3_1. Human isogenic...