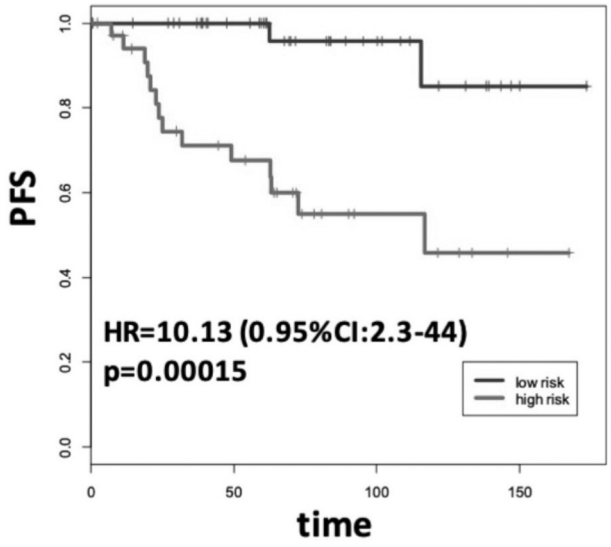

Abstract 37 Figure 1 Kaplan-Meier curves of PFS in eEOC cohort according to MiROvaR classification

MiROVaR classified 37 patients (46.3%) at high-risk (14 events, *median PFS: 117 months, 95%CI: 62-nyr*) and 43 patients (53.7%) at low-risk of relapse (2 events, *median PFS time: nyr; 95%CI:nyr*). Kaplan-Meier curves confirmed the significantly different PFS time (figure 1) for the two groups with HR=10.13 (95%CI: 2.3–4.4, p=0.00015) for the high-risk patients.

Conclusions MiROvaR confirmed as a potential predictor of EOC progression and has prognostic value independent of relevant clinical covariates also in patients with eEOC. MiROvaR warrants further investigation for the development of a clinical-grade prognostic assay.

IGCS19-0174

38 PHASE II STUDY OF ENZALUTAMIDE IN ANDROGEN RECEPTOR POSITIVE (AR+) RECURRENT OVARIAN CANCER: FINAL RESULTS

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Objectives This was a single institution, phase II, Simon 2-stage with safety lead-in study of the oral androgen-receptor antagonist, enzalutamide, in patients with recurrent AR+ ovarian cancer with measurable disease and 1–3 prior lines of chemotherapy. The primary objective was to determine the proportion of patients surviving progression free for 6 months (PFS_6) and overall response rate by RECIST 1.1 Criteria; with 7/58 responses or PFS_6 of 13 being considered a positive study.

Methods Following consent, archival tissue was screened for AR+ by IHC with ≥5% considered positive. Enrolled patients were treated with enzalutamide 160mg po daily until progression of disease or treatment discontinuation. A cycle was 28 days. Adverse events were graded by CTCAE V 4.0.

Results Between 11/2013–7/2018 160 patients were screened and 59 patients [45 high grade serous(HGS), 14 low grade serous(LGS)] consented to treatment on the study (1 patient was replaced; efficacy cohort=58, safety cohort=59). There was 1 confirmed and 1 unconfirmed partial response (PR), PFS6 was 22% (90% CI: 15.1–100%) with PFS6 for those with HGS 19.8% (90% CI: 12.7–100%) and for LGS 38.5% (21.7%-100%). Median PFS was 3.5 months. There were no toxicities >grade 3 related to study drug. Related grade 3 toxicities occurred in 6 patients [fatigue (1), rash (2), hypertension (1), anemia (1), and transaminase elevation (1)].

Conclusions The study met its primary endpoint, with 13 patients (22%) remaining progression free at 6 months, however the response rate was low. Enzalutamide was well tolerated and may offer a good treatment option in select patients.

IGCS19-0345

39 INTERIM ANALYSIS OF OVARIAN CANCER BY THE US NATIONAL CANCER MOONSHOT'S TRI-FEDERAL (DOD/NCI/VA) APPLIED PROTEOGENOMIC ORGANIZATIONAL LEARNING AND OUTCOMES (APOLLO) RESEARCH NETWORK

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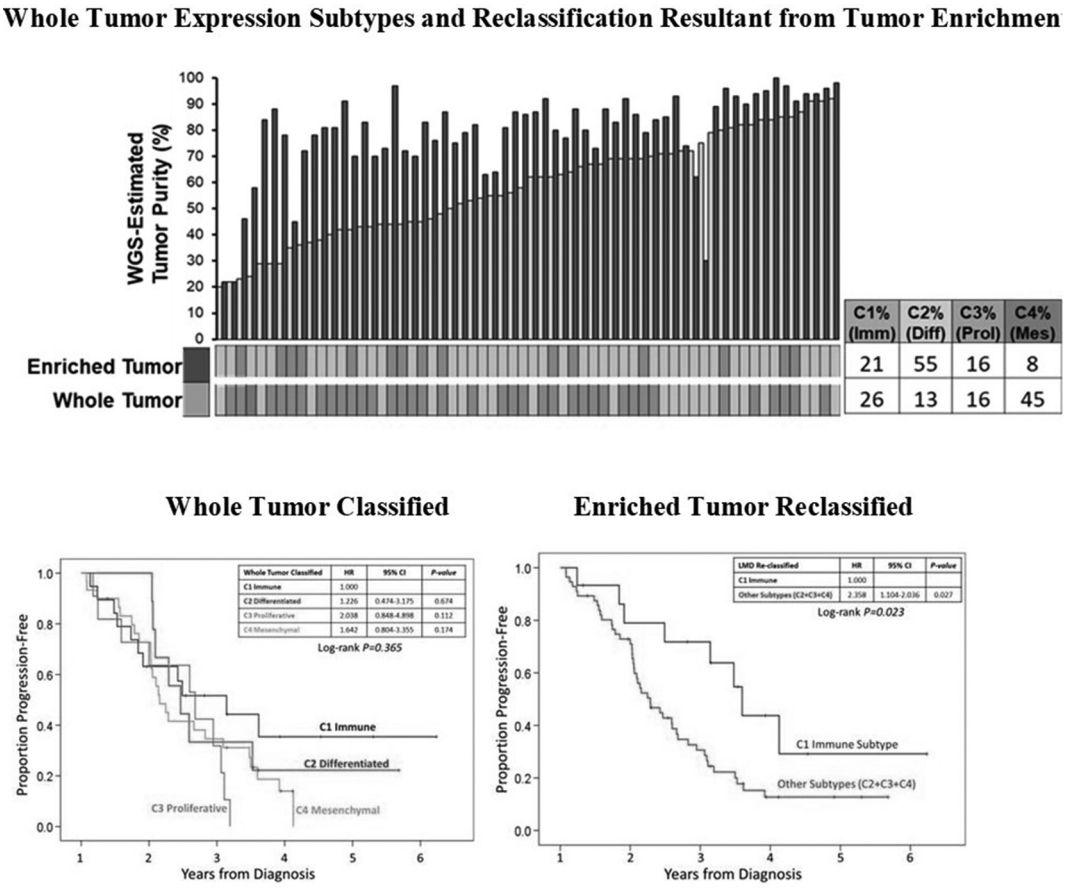
Objectives Although studies including TCGA have selected for pure tumors to enhance detection of cancer-related biomarkers, many impure tumors are associated with poor prognosis raising concerns over historical selection bias. Enrichment techniques to prep tumor micro-compartments was aligned with comprehensive proteogenomic analysis in an advanced stage high grade serous ovarian cancer (HGSOC) patient cohort to detect novel, clinically-relevant alterations.



Abstract 39 Figure 1

Methods 87 fresh-frozen tumor specimens were selected from a cohort of over 630 patients to reflect a continuum of tumor purity balanced by progression and disease distribution. A whole tumor (WT) specimen and one enriched for tumor epithelium was prepared for each case using laser microdissection (LMD). Specimens were analyzed by whole genome sequencing (WGS), mRNA-seq, quantitative global/phosphoproteomics, and reverse phase protein array.

Results LMD enrichment increased median tumor purity estimated by WGS from 56% in WT to 79% ($P<4e-11$, MWW U test) and significantly enhanced identification of somatic single nucleotide variants (SNVs) (27%, $P<3e-7$) and short indels (16%, $P<4e-4$). Following LMD, 83% of cases characterized as mesenchymal expression subtype (C4) in WT samples were reclassified to other molecular subtypes ($P<0.001$). LMD tumors with an immune expression subtype (C1) had improved progression-free survival (PFS) compared with other molecular subtypes (p=0.009). Differential proteomic analyses focused on signaling alterations correlating with altered PFS, homologous recombination deficiency and immune signaling.

Conclusions These data demonstrate feasibility of cohort-level proteogenomic characterization of the tumor microenvironment and establishes a non-restrictive paradigm for patient inclusion and specimen prep in support of the prospective mission-scale analyses associated with APOLLO.

IGCS19-0756

40 SENTINEL LYMPH NODE MAPPING ALONE COMPARED TO MORE EXTENSIVE LYMPHADENECTOMY IN PATIENTS WITH UTERINE SEROUS CARCINOMA

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Objectives To assess survival among patients with uterine serous carcinoma (USC) who underwent sentinel lymph node (SLN) mapping alone, compared with patients who underwent systematic lymphadenectomy (LND).

Methods Newly diagnosed USC at our institution between 1/1/1996 and 12/31/2017 were reviewed. Patients were assigned to two cohorts: those who underwent SLN mapping alone (SLN Cohort); and those who underwent systematic [pelvic and paraaortic] LND without SLN mapping (LND Cohort). Progression-free survival (PFS) and overall survival (OS) were estimated using the Kaplan-Meier method.

Results In total, 245 patients were available for analysis. Of these, 79 (32.2%) underwent only SLN mapping and 166