**Introduction/Background** Endometrial cancer (EC) is the most common gynecological cancer and the second most common female malignancy in the developed world. Circulating soluble programmed death-2 ligand (sPD-L2) plays a crucial role within the tumor microenvironment for tumorogenesis. Not much is known about the functional consequence of cell surface-expressed PD-L2 or sPD-L2 in oncologic diseases, but understanding the molecular alterations involved in endometrial cancer provides personalized treatments through the incorporation of targeted therapies.

**Methodology** Our study aimed to investigate the percentage of peripheral blood (PB) monocytes (MO) with PD-L2 expression, and the prevalence of the sPD-L2 in the plasma of patients with endometrial cancer in comparison to healthy blood donors.

The percentage of PD-L2 positive MO was evaluated by flow cytometry. Soluble PD-L2 levels in the plasma of the EC patients (n=45) and the plasma of the healthy blood donors (n=20) were investigated via an immunoassay kit ELISA (sPD-L2 as specified by the manufacturer Invitrogen, USA). Plate absorbance was read on an ELX-800 plate reader (BioTek Instruments, Inc, USA) and analyzed by Gen5 (Bio-Tek 218 Instruments, Inc). The concentrations of sPD-L2 (pg/mL) were calculated via interpolation from a standard curve.

**Results** The concentrations of sPD-L2 in the plasma of the EC patients were: median 134.720, range 47.696–321.12 pg/mL. The concentrations of sPD-L2 in the plasma of the control group were: median 9446.710, range 7767.216 – 11551.89 pg/mL. The sPD-L2 levels in the plasma of patients with endometrial cancer were significantly lower than in the control group (p<0.0001). The percentage of PD-L2 positive MO was significantly lower in the PB of patients with EC than in the control group (3.32% vs. 71.48 p<0.0001).

**Conclusion** There are significant differences in both, the percentage of PD-L2 positive MO, and sPD-L2 levels in patients with endometrial cancer and healthy women.

**Introduction/Background** Advanced endometrial cancer (EC) remains a disease with a poor prognosis. Since the efficacy of current chemotherapy is limited, new therapeutic agents are need to be investigated. We focused on lipopolysaccharide-stimulated lipoprotein receptor (LSR), a membrane protein highly expressed in EC cells, and developed a novel chimeric chicken-mouse anti-LSR monoclonal antibody (mAb). The aim of this study was to investigate the function of LSR and the antitumor activity of anti-LSR mAb in EC.

**Methodology** The relationship between LSR expression level and clinical outcomes was investigated using immunohistochemistry in 230 clinical samples of EC. To clarify the function of LSR, we conducted in vitro assays using LSR-knockdown EC cell lines (HEC1 and HEC116) generated by transfected with siRNA. We investigated the antitumor activity of anti-LSR mAb in EC cell xenograft mouse model.

**Results** Patients were divided into two groups based on LSR expression level: High-LSR (n=153) and Low-LSR (n=77) groups. The 5-year overall survival rate in High-LSR group was significantly lower than that in Low-LSR group (hazard ratio: 3.53, 95% confidence interval: 1.35–9.24, p=0.01). In addition, High-LSR expression was associated with deep myometrial invasion and distant metastasis in EC (p < 0.05, respectively). In vitro analysis demonstrated that LSR-knockdown suppressed the activation of MEK/ERK signaling and subsequent matrix metalloproteinases (MT1-MMP and MMP2), which downregulated cell proliferation, invasion, and migration. Our anti-LSR mAb significantly inhibited the tumor growth in EC cell xenograft mouse model (p = 0.019). Anti-LSR mAb suppressed the activation of ERK1/2 and increased the expression of cleaved caspase-3 in vivo. Moreover, anti-LSR mAb also suppressed the activation of MEK/ERK signaling in vitro.

**Conclusion** LSR is associated with tumor growth, invasion, metastasis, and poor prognosis through MAPK signaling in EC. Anti-LSR mAb is a potential therapeutic agent which induces apoptosis and shows a significant antitumor effect in EC.

**Introduction/Background** Natural orifice transluminal endoscopic (NOTES) minimally invasive surgery improves cosmetic outcomes and reduces surgical injury. This in turn decreases the inflammatory and neuroendocrine responses resulting in less postoperative pain and quicker recovery.

**Methodology** Patients with stage I/II A endometrial cancer selected for this procedure.

The HominisTM Surgical System is used. The System consists of sterile: components: the Hominis ArmsTM and the GYNTrocar Kit, and non-sterile capital equipment: the ControlConsole and the Motor Units. The Arms are inserted transvaginally through the posterior fornix to the pelvic cavity, retroflexed towards the point of entry. This enables...