pre-treatment and on-treatment biopsies demonstrated intratumoral suppression of KYN production with EPA 600 mg BID. 

**Conclusions** Using suppression of plasma KYN as a pharmacodynamic marker of EPA activity, we demonstrated that maximal blockade of IDO1 activity in the context of anti-PD-1 treatment requires doses of EPA substantially higher than those tested in prior clinical studies. These findings are now informing additional proof of concept clinical studies.

**Acknowledgements** These studies were supported by Incyte Corporation (ECHO-210, POD1UM-102) and in collaboration with MSD (ECHO-301, ECHO-202) and Bristol Myers Squibb (ECHO-204).

**Trial Registration** ECHO-202 [NCT NCT02178722]; ECHO-204 [NCT02327078]; ECHO-210 [NCT01685255]; ECHO-301 [NCT02752074]; POD1UM-102 [NCT03589651]

**Ethics Approval** These studies were each approved by the institutional review board or independent ethics committee of participating institutions.

**REFERENCES**


**Abstracts**

30 NLR (NEUTROPHIL LYMPHOCYTE RATIO) AND PLR (PLATELET LYMPHOCYTE RATIO) CHANGES AS A PREDICTOR OF EVENTUAL TREATMENT FAILURE AND DEATH ON NIVOLUMAB THERAPY IN RENAL CELL CARCINOMA

1Arnab Basu*, 1Yash Suri, 1Lakshminarayan Nandagopal, 1Mollie Deshazo, 1Lyse Norian, 1Eddy Yang. 1University of Alabama at Birmingham, Birmingham, AL, USA; 2University of Alabama, Birmingham, AL, USA

**Background** Elevated baseline neutrophil lymphocyte ratios (NLR) are now well established as a poor predictor of survival in renal cell carcinoma (RCC) and other cancers. Platelet Lymphocyte Ratios (PLR) have also recently shown similar effects. Despite these findings, the practical use of these ratios is still somewhat limited. We have previously shown that higher NLRs may be associated with increased concentrations of myeloid derived suppressor cells (MDSC). We hypothesized that increases in NLR or PLR (NLR/PLR failure) at 2 months while on immunotherapy could be a predictor of eventual treatment failure and overall survival.

**Methods** We analyzed patients who received nivolumab therapy for RCC at our institution from 3/2016 to 6/2019. Patients with complete data on NLR and PLR at time = 0 and +2 months and those who had accurate response and overall survival information available were selected (n = 37).

**Results** NLR failure was associated with a statistically significant increase in the risk of progression and death with NLR/PLR failure at 2 months (± 2 weeks). Kaplan Meier graphs were constructed to trace survival functions for PFS and OS by NLR.

**Conclusion** NLR failure was associated with a statistically significant increase in the risk of progression on nivolumab therapy (HR 4.26, 95% CI [1.47–12.3], p = 0.007), in an adjusted cox regression model that included baseline NLR. In this adjusted model, the value of baseline NLR to predict