administered at Dose Level (DL) 1 = 0.1×10^9, DL2 0.5–1.2×10^9, and DL3/Expansion= 1.2–15×10^9 transduced cells.

**Results**
As of Jan 10, 2020, 11 pts (6 male/5 female) with NSCLC (3 squamous cell, 7 adenocarcinoma, 1 adenosquamous) were treated. Five, 3 and 3 pts received cells at DL1, DL2, and DL3/Expansion, respectively. The most frequently reported adverse events ≥ Grade 3 were lymphopenia (11), leukopenia (9), neutropenia (8), anemia (6), thrombocytopenia (5), and hypotension (3). Three pts reported CRS (Grades 1, 2, and 4, respectively). One pt received the highest dose of LD (Flu 30 mg/m^2 Day 1 4 and Cy 1800 mg/m^2 Day 1–2) prior to a second infusion and had a partial response (PR). This pt subsequently developed aplastic anemia and died. Responses included: 1 pt – PR, 3 pts - stable disease, 2 pts – progressive disease, 1 pt - too early to determine, 4 pts - off-study prior to tumor assessment. SPEAR T-cells were detectable in peripheral blood from pts at each dose level, and in tumor tissue from pts at DL1 and DL3.

**Conclusions**
ADP-A2M10 SPEAR T-cells have shown acceptable safety and no evidence of toxicity related to off-target binding or alloreactivity. Given the minimal antitumor activity and the discovery that MAGE-A10 expression frequently overlaps with MAGE-A4 expression, the clinical program has closed. Several trials with SPEAR T-cells targeting MAGE-A4 are ongoing (https://bit.ly/35hnsZK).

**Trial Registration**
NCT02592577

**Ethics Approval**
The trial was conducted in accordance with the principles of the Declaration of Helsinki and the International Conference on Harmonization Good Clinical Practice guidelines and was approved by local authorities. An independent ethics committee or institutional review board approved the clinical protocol at each participating center. All the patients provided written informed consent before study entry.

http://dx.doi.org/10.1136/jitc-2020-SITC2020.0278

**DURVALUMAB AFTER CHEMORADIOThERAPY FOR PD-L1 EXPRESSING INOPERABLE STAGE III NSCLC IMPACTS LOCAL-REGIONAL CONTROL AND OVERALL SURVIVAL**

Lukas Kaesmann*, Julian Taugner, Chukwuka Ezé, Claus Belka, Farkhad Manapov. LMU University Hospital, Munich, Germany

**Background**
Chemoradiotherapy (CRT) followed by maintenance treatment with the PD-L1 inhibitor durvalumab is a new standard of care for inoperable stage III NSCLC. The present study aims to evaluate the oncological outcome of patients treated with CRT alone to those treated with CRT and durvalumab (CRT-IO) in the real-world setting.

**Methods**
Retro- and prospectively collected data of 133 consecutive inoperable stage III NSCLC patients treated between 2011–2019 were evaluated. Local-regional-recurrence-free-survival (LRPFS - defined as progression in the mediastinum, hilum and/or supraclavicular region at both sides and the involved lung), progression-free survival (PFS) and overall survival (OS) were evaluated from last day of thoracic radiotherapy (TRT).

**Results**
Median age at diagnosis was 68.5 years; 44 (33%) were female; 58 (44%) were diagnosed with adenocarcinoma. All patients were irradiated to a total dose of at least 60 Gy (EQQ2). Median PTV was 709.8 cc (range: 181–1958 cc). 113 (85%) patients were treated with CRT and 20 (15%) PD-L1 expressing patients with CRT-IO. 83% of patients received two cycles of concomitant platinum-based chemotherapy. Median time to initiation of durvalumab after CRT was 0.8 months (range: 0.4–2.1). Median follow-up for entire cohort was 33.3 months (range: 4.8–111.8) and median overall survival (OS) was 24.7 (95% CI: 18.9–30.4) months. In the CRT-IO cohort after a median follow-up of 15.5 (range: 5.1–20.2) months, no deaths were reported at the time of evaluation (August 2020). Improved LRPFS (p = 0.013), PFS (p = 0.033) and OS (p = 0.002) were correlated with CRT-IO compared to the historical cohort of conventional CRT patients. After propensity-score matching (PSM) analysis with age, gender, histology, tumor volume and treatment mode and exact matching for T-and N-stage, 18 CRT-IO patients were matched 1:2 to 36 CRT patients. 12-month LRPFS, PFS and OS rates in the CRT-IO vs CRT cohort were 80% vs 38.8% (p = 0.001), 50% vs 22% (p = 0.013) and 100% vs 75% (p = 0.002), respectively. Also regarding intracranial failure, 6-month brain metastases rates were 0% vs. 6% in the CRT-IO vs CRT cohort (p = 0.290).

**Conclusions**
This real-world analysis demonstrates that durvalumab after CRT has led to significant improvement of local-regional control, PFS and OS in PD-L1 expressing inoperable stage III NSCLC patients compared to a historical cohort.

**Acknowledgements**
The study was partly presented at 2020 Annual Meeting of the American Society of Clinical Oncology (ASCO).

**Trial Registration**
N/A

**Ethics Approval**
The study was approved by Ludwig-Maximilians-University (LMU), Munich, Germany: Institution’s Ethics Board, approval number 17-230.

**Consent**
Written informed consent was obtained from the patient for publication of this abstract and any accompanying images. A copy of the written consent is available for review by the Editor of this journal.

http://dx.doi.org/10.1136/jitc-2020-SITC2020.0279

**279**

**280**
immunocyte compositions using CIBERSORT showed that higher M1/M2 ratios were found in patients with durable TIL benefit.

Conclusions In summary, higher expression of tumor antigens, longer TIL persistence and more M1 macrophages are associated with durable TIL benefit, while lack of tumor antigens, expression of immune checkpoint molecules, and upregulated formation of extracellular matrix may cause TIL resistance. Therefore, both tumor intrinsic factors and extrinsic factors contribute to TIL resistance in lung cancer patients.

Acknowledgements This work has been supported in part by the Molecular Genomics Core, Tissue Core, Proteomics Core and Flow Cytometry Core at the H. Lee Moffitt Cancer Center & Research Institute, a comprehensive cancer center designated by the National Cancer Institute and funded in part by Moffitt’s Cancer Center Support Grant (P30-CA076292). This work has been funded by SU2C grant.

Trial Registration NCT03215810

Ethics Approval The study was approved by Chesapeake IRB, approval number Pro00021984.

REFERENCES

http://dx.doi.org/10.1136/jitc-2020-SITC2020.0280

JAvelin Medley VEGF: Phase 2 Study of Avelumab + Axitinib in Patients with Previously Treated Non-Small Cell Lung Cancer (NSCLC) or Treatment Naive, Cisplatin-ineligible Urothelial Cancer (UC)

Gabriella Galliff*, Ivona Lugowska, Elena Podubskaya, Byoung Chul Cho, Myung-Ju Ahn, Ji-Youn Han, Kwus-Chou Su, Ralph Hauke, Stephen Dyer, Dae Ho Lee, Piotr Serwatowski, David Lorente Estelles, Viran Holden, Yu Jung Kim, Vladimir Vladimirov, Zsolt Horvath, Abhimanyu Ghose, Elena Poddubskaya, Byoung Chul Cho, Myung-Ju Ahn, Ji-Youn Han, Kwus-Chou Su, Ralph Hauke, Stephen Dyer, Dae Ho Lee, Piotr Serwatowski, David Lorente Estelles, Viran Holden, Yu Jung Kim, Vladimir Vladimirov, Zsolt Horvath, Abhimanyu Ghose, Allison Goldman, Alessandra di Pietro, Jing Wang, Danielle Murphy, Mikhail Laskov. Pulmonology Hospital Torokbalint, Torokbalint, Hungary; Maria Sklodowska-Curie National Research, Warsaw, Poland; Vitamed LLC, Moscow, Russian Federation; Severance Hospital, Seoul, Korea, Republic of; Samsung Medical Center, Seoul, Korea, Republic of; National Cancer Center, Guyang, Korea, Republic of; National Cheng Kung University Hospital, Tainan, Taiwan, Province of China; Oncology Hematology West, Omaha, NE, USA; Saint Francis Hospital Cancer Center, Greenville, SC, USA; Asan Medical Center, Seoul, Korea, Republic of; Centrum Medyczne Dom Lekarski S.A, Sacezcin, Poland; Consorcio Hospitalario, Castellon, Spain; Oncology Hematology Associates, Springfield, MO, USA; Seoul National University Bundang, Seongnam-si, Gyeonggi-do, Korea, Republic of; GBUZ of Stavropol Territory, Pyatigors, Russian Federation; Bacs-Kiskun Megyei Korhaz Onkoligologia, Kecskemet, Hungary; Arizona Oncology Associates, Tempe, AZ, USA; Pfizer, Collegeville, PA, USA; Pfizer Italia SRL, Milan, Italy; University Clinic of Headache, Moscow, Russian Federation.

Background Avelumab, a human anti–PD-L1 monoclonal antibody, has shown a manageable safety profile and antitumor activity in multiple tumor types, including platinum-resistant metastatic or recurrent NSCLC,1 and is approved...