SUPPLEMENTAL MATERIALS

Phase I studies of davoceticept (ALPN-202), a PD-L1-dependent CD28 costimulator and dual PD-L1/CTLA-4 inhibitor, as monotherapy and in combination with pembrolizumab in advanced solid tumors (NEON-1 and NEON-2)

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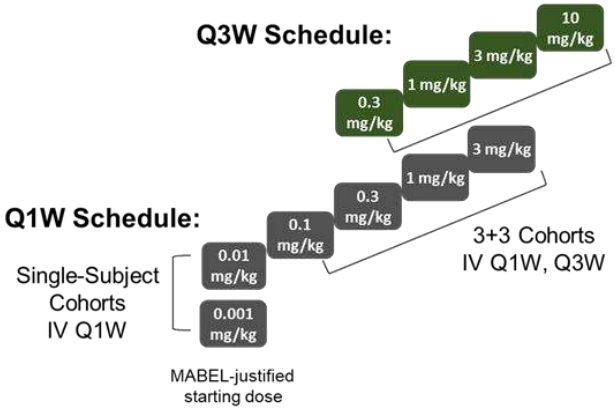
Davar D, *et al. J Immunother Cancer* 2024; 12:e009474. doi: 10.1136/jitc-2024-009474

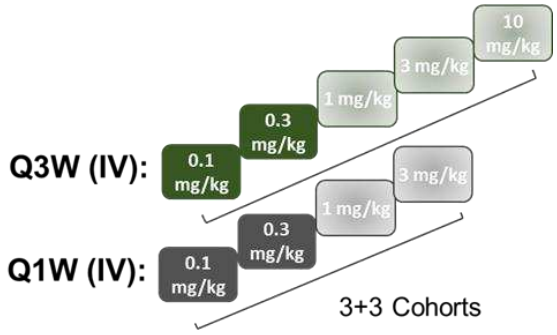
SUPPLEMENTAL FIGURES

Supplemental Figure 1. NEON-1 and NEON-2 Study Schemas

A Davoceticept Monotherapy Dose Escalation (NEON-1)

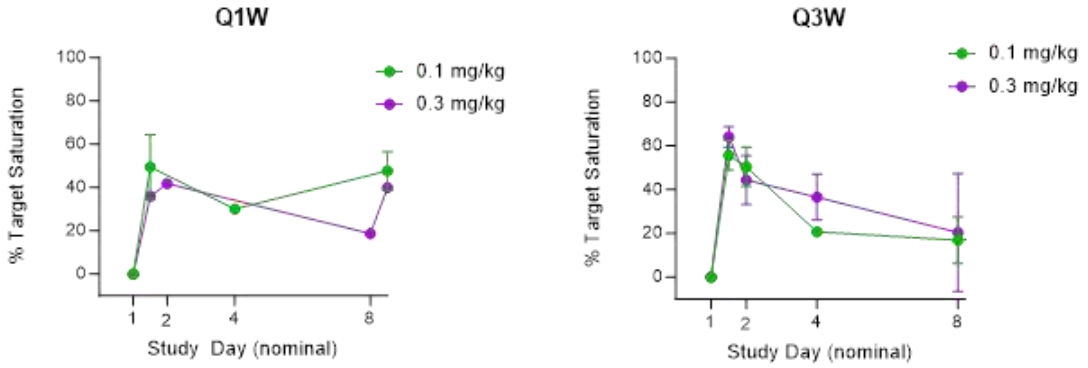


B Davoceticept + Pembrolizumab Dose Escalation (NEON-2)



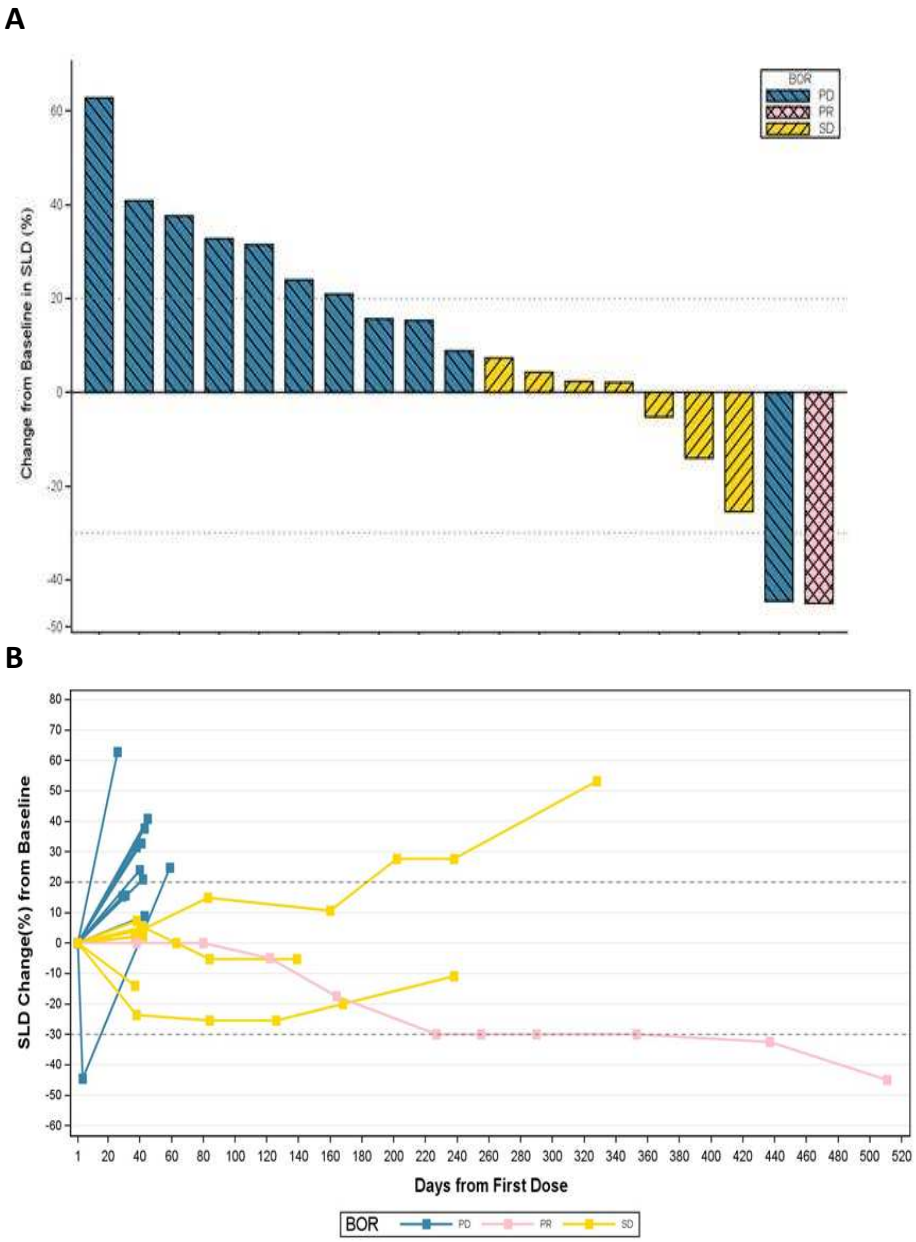
Dose escalation in NEON-1 included 2 arms (Q1W and Q3W), each with a 21-day treatment cycle. The Q1W arm was initiated first; the Q3W arm was started after completion of the DLT evaluation of the 0.1 mg/kg dose cohort in the Q1W arm. Beginning at the 0.1 mg/kg dose level, a standard 3+3 cohort schema was implemented. (A) Similarly, NEON-2 included 2 arms (Q1W and Q3W), each with a 21-day treatment cycle. Pembrolizumab was administered with davoceticept on Day 1 of every other cycle. Dose escalation beyond the 0.3 mg/kg cohorts was not pursued. (B)

Supplemental Figure 2. Drug Saturation in NEON-2



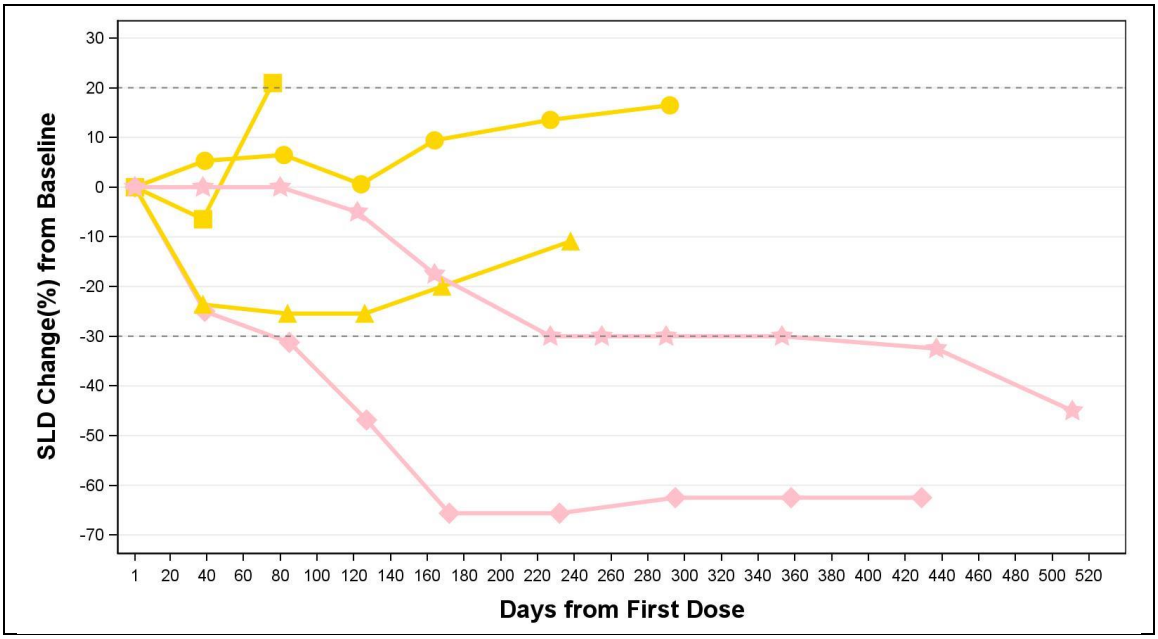
Drug saturation of CD28 on circulating CD4+ T cells by davoceticept in NEON-2 was determined by flow cytometry pre-dose and following infusion of davoceticept using an antibody specific for davoceticept bound to CD28. CD28 drug saturation in NEON-2 did not appear significantly different than that observed in NEON-1. Data shown above for NEON-2 is n=1-4 for Q1W and n=1-5 for Q3W.

Supplemental Figure 3. Efficacy of Davoceticept + Pembrolizumab (NEON-2)



Anti-tumor efficacy plotted as the best overall response (BOR) for the % change in the sum of longest diameters (A) and the percent change in the sum of longest diameters (SLD) over time (B) in NEON-2.

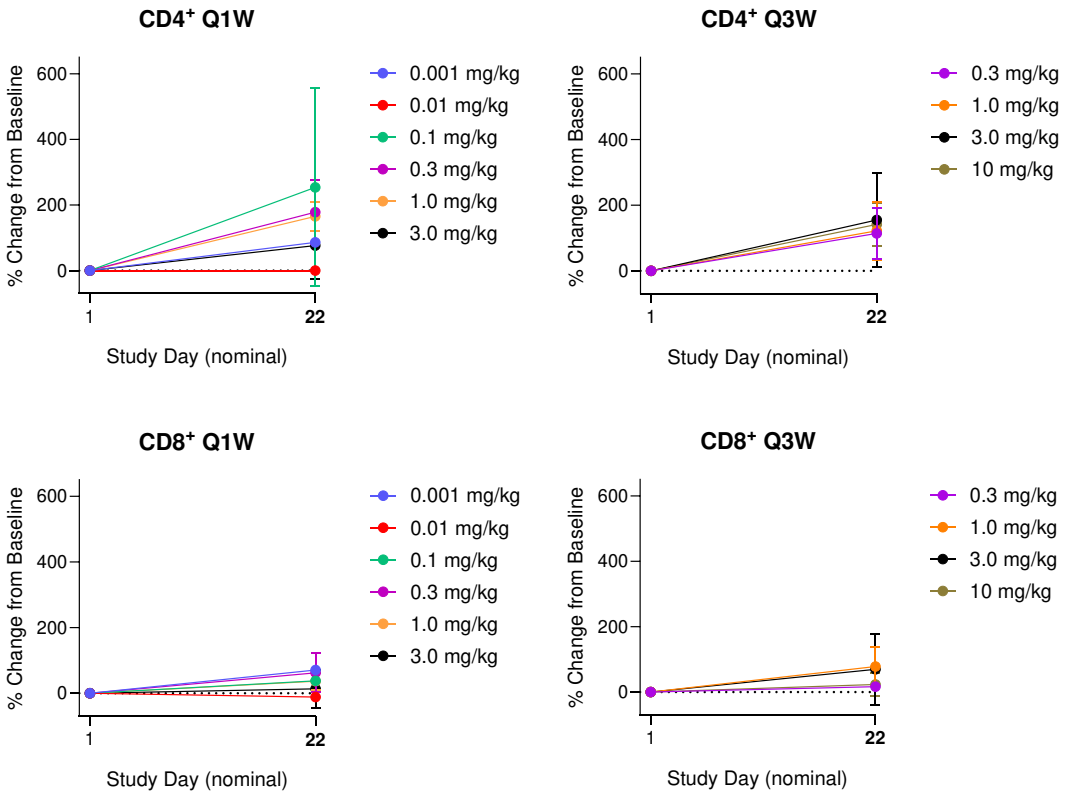
Supplemental Figure 4. Efficacy of Davoceticept or Davoceticept + Pembrolizumab in Renal Cell Carcinoma (RCC) Patients Looking at Percent Change in the Sum of Longest Diameters Over Time in NEON-1 (1-A, 1-B, 1-C) and NEON-2 (2-A, 2-B).



Abbreviations: SLD, sum of longest diameters.

Anti-tumor efficacy plotted as the % change in the sum of longest diameters in RCC patients in NEON-1 and NEON-2. Details for each of these patients can be found in Supplemental Table 2.

Supplemental Figure 5. Percent Change from Baseline in CD4+ and CD8+ Counts in Patients who received Davoceticept Monotherapy



Quantitative CD4 and CD8 T cell counts in NEON-1 are shown. Samples were obtained prior to study treatment administration for each treatment cycle. Percent change from baseline of the absolute counts (cells / uL) are reported here for C1D1 and C2D1 pretreatment, (n= 1-6 /dose cohort Q1W and n= 2-11 / dose cohort Q3W)."

SUPPLEMENTAL TABLES

Supplemental Table 1. Patient Disposition for Studies NEON-1 and NEON-2

	NEON-1 (N=58)	**NEON-2 (N=29)**
Patients treated, n (%)	58 (100)	29 (100)
Discontinued treatment, n patients (%)	58 (100)	29 (100)
Primary reason for treatment discontinuation, n patients (%)		
Adverse Event	4 (7)	4 (14)
Death	2 (3%)	0
Physician decision	4 (7)	3 (10)
Progressive disease	41 (71)	11 (38)
Subject removed at sponsor request	3 (5)	6 (21)
Withdrawal by patient	2 (3)	0
Clinical Progression	2 (3)	5 (17)

Supplemental Table 2. Demographics and Disease Characteristics of Patients Treated in NEON-1 and NEON-2

Characteristic	NEON-1 Subjects n=58	NEON-2 Subjects n=29
Age in years, median (range)	**60 (36-79)**	**60 (30-74)**
Male, n (%) **Female, n (%)**	**33 (57)** **25 (43)**	**16 (55)** **13 (45)**
Race, n (%) • Asian • Black or African American • Native Hawaiian or Other Pacific Islander • White • Other	 **4 (7)** **3 (5)** **1 (2)** **48 (83)** **2 (3)**	 **0** **3 (10)** **0** **24 (83)** **2 (7)**
ECOG (Screening) 0 / 1 /2, n (%)	**25 (43) / 33 (57) /1 (2)**	**10 (34) / 19 (66) / 0**
Prior Lines of Systemic Anti-Cancer Therapy, median (range) • Prior I/O Therapy • Prior PD-(L)1 inhibitor	**3 (0-9)** 24 (41) 17 (29)	**3 (0-8)** 9 (31) 9 (31)
Archival Tumor PD-L1 Expression (Pos/Neg) • CPS <1/≥1/No data/Grand Total • TPS <1/≥1/No data/Grand Total	 17 (29)/34 (57)/7 (12)/58 37/(64)/14 (24)/7 (12)/58	 8 (28)/18 (62)/3 (10)/29 19 (66)/7 (24)/3 (10)/29
Tumor Types (n ≥ 5% incidence), n (%)	Colorectal – 14 (24) Pancreatic – 11 (19) Esophageal – 4 (7) Mesothelioma – 4 (7) Cholangiocarcinoma – 3 (5) Renal – 3 (5) Skin, other – 3 (5)	Colorectal – 10 (34) Pancreatic – 3 (10) Uveal Melanoma – 3 (10) Melanoma – 2 (7) Non-small cell lung cancer – 2 (7) Renal – 2 (7)

Abbreviations: CPS, combined proportion score; ECOG, Eastern Cooperative Oncology Group; I/O, immuno-oncology; TPS, tumor proportion score

Note: PD-L1 CPS and TPS were assessed by immunohistochemistry using the 22C3 antibody.

Supplemental Table 3. Patients with Treatment-emergent, Treatment-related Adverse Events

System Organ Class Preferred Term CTCAE Grade, n patients (%)	**NEON-1 (N=58)**	**NEON-2 (N=29)**
Patients with any Treatment-related Adverse Event	39 (67)	18 (62%)
BLOOD AND LYMPHATIC SYSTEMDISORDERS	1 (2)	0
Anaemia	1 (2)	0
Grade 3	1 (2)	0
CARDIAC DISORDERS	0	3 (10)
Immune-Mediated Myocarditis	0	1 (3)
Grade 5	0	1 (3)
Palpitations	0	1 (3)
Grade 1	0	1 (3)
Cardiogenic Shock	0	1 (3)
Grade 5	0	1 (3)
EAR AND LABYRINTHDISORDERS	1 (2)	0
External Ear Pain	1 (2)	0
Grade 1	1 (2)	0
ENDOCRINE DISORDERS	5 (9)	1 (3)
Hyperthyroidism	2 (3)	0
Grade 1	1 (2)	0
Grade 2	1 (2)	0
Hypothyroidism	5 (9)	1 (3)
Grade 2	5 (9)	1 (3)
GASTROINTESTINAL DISORDERS	10 (17)	6 (21)
Abdominal Distension	1 (2)	0
Grade 1	1 (2)	0
Abdominal Pain	1 (2)	0
Grade 1	1 (2)	0
Colitis	1 (2)	0
Grade 2	1 (2)	0
Constipation	1 (2)	0
Grade 1	1 (2)	0
Diarrhoea	4 (7)	2 (7)
Grade 1	2 (3)	2 (7)
Grade 2	1 (2)	0
Grade 3	1 (2)	0
Dry Mouth	1 (2)	1 (3)

System Organ Class **Preferred Term** **CTCAE Grade, n patients (%)**	**NEON-1 (N=58)**	**NEON-2 (N=29)**
Grade 1	1 (2)	1 (3)
Gastritis	1 (2)	0
Grade 3	1 (2)	0
Gastrooesophageal Reflux Disease	1 (2)	0
Grade 1	1 (2)	0
Lip Ulceration	1 (2)	0
Grade 1	1 (2)	0
Nausea	1 (2)	3 (10)
Grade 1	0	3 (10)
Grade 2	1 (2)	0
Stomatitis	1 (2)	2 (7)
Grade 1	0	1 (3)
Grade 2	1 (2)	1 (3)
Terminal Ileitis	1 (2)	0
Grade 2	1 (2)	0
Vomiting	1 (2)	2 (7)
Grade 1	0	1 (3)
Grade 2	1 (2)	1 (3)
GENERAL DISORDERS AND ADMINISTRATION SITE CONDITIONS	15 (26)	6 (21)
Asthenia	2 (3)	0
Grade 1	1 (2)	0
Grade 2	1 (2)	0
Chills	4 (7)	0
Grade 1	4 (7)	0
Fatigue	10 (17)	3 (10)
Grade 1	5 (9)	2 (7)
Grade 2	4 (7)	1 (3)
Grade 3	1 (2)	0
Feeling Abnormal	1 (2)	0
Grade 1	1 (2)	0
Feeling Cold	1 (2)	0
Grade 1	1 (2)	0
Influenza Like Illness	1 (2)	0
Grade 1	1 (2)	0
Localised Oedema	1 (2)	0
Grade 1	1 (2)	0
Oedema Peripheral	2 (3)	0
Grade 1	1 (2)	0

System Organ Class **Preferred Term** **CTCAE Grade, n patients (%)**	**NEON-1 (N=58)**	**NEON-2 (N=29)**
Grade 2	1 (2)	0
Pyrexia	2 (3)	3 (10)
Grade 1	2 (3)	3 (10)
IMMUNE SYSTEM DISORDERS	0	1 (3)
Infusion Related Reaction	0	1 (3)
Grade 3	0	1 (3)
INFECTIONS AND INFESTATIONS	2 (3)	0
Conjunctivitis	1 (2)	0
Grade 1	1 (2)	0
Oral Candidiasis	1 (2)	0
Grade 2	1 (2)	0
INJURY, POISONING AND PROCEDURAL COMPLICATIONS	9 (16)	1 (3)
Infusion Related Reaction	10 (17)	0
Grade 1	5 (9)	0
Grade 2	5 (9)	0
Overdose	0	1 (3)
Grade 1	0	1 (3)
INVESTIGATIONS	7 (12)	3 (10)
Alanine Aminotransferase Increased	4 (7)	4 (14)
Grade 1	2 (3)	0
Grade 2	1 (2)	3 (10)
Grade 3	1 (2)	1 (3)
Aspartate Aminotransferase Increased	0	
Grade 1	0	1 (3)
Grade 3	0	3 (10)
Amylase Increased	1 (2)	0
Grade 2	1 (2)	0
Lipase Increased	1 (2)	0
Grade 3	1 (2)	0
Weight Decreased	2 (3)	0
Grade 1	2 (3)	0
METABOLISM AND NUTRITION DISORDERS	7(12)	3 (10)
Decreased Appetite	5 (9)	2 (7)
Grade 1	3 (5)	1 (3)
Grade 2	2 (3)	1 (3)
Dehydration	3 (5)	0
Grade 2	2 (3)	0

System Organ Class **Preferred Term** **CTCAE Grade, n patients (%)**	**NEON-1 (N=58)**	**NEON-2 (N=29)**
Grade 3	1 (2)	0
Hyperuricaemia	1 (2)	0
Grade 1	1 (2)	0
Hypokalaemia	2 (3)	1 (3)
Grade 1	0	1 (3)
Grade 2	1 (2)	0
Grade 3	1 (2)	0
Hypomagnesaemia	3 (5)	1 (3)
Grade 1	3 (5)	1 (3)
Hypophosphataemia	1 (2)	0
Grade 2	1 (2)	0
MUSCULOSKELETAL AND CONNECTIVE TISSUE DISORDERS	7 (12)	1 (3)
Arthralgia	4 (7)	1 (3)
Grade 1	3 (5)	1 (3)
Grade 2	1 (2)	0
Arthritis	2 (3)	0
Grade 2	2 (3)	0
Flank Pain	1 (2)	0
Grade 1	1 (2)	0
Joint Stiffness	1 (2)	0
Grade 1	1 (2)	0
Myalgia	4 (7)	0
Grade 1	3 (5)	0
Grade 2	1 (2)	0
Neck Pain	1 (2)	0
Grade 1	1 (2)	0
Pain in Jaw	1 (2)	0
Grade 1	1 (2)	0
NERVOUS SYSTEM DISORDERS	7 (12)	1 (3)
Disturbance In Attention	1 (2)	0
Grade 1	1 (2)	0
Dizziness	3 (5)	0
Grade 1	3 (5)	0
Dysgeusia	2 (3)	1 (3)
Grade 1	1 (2)	0
Grade 2	1 (2)	1 (3)
Headache	4 (7)	0
Grade 1	4 (7)	0
Restless Legs Syndrome	1 (2)	0

System Organ Class **Preferred Term** **CTCAE Grade, n patients (%)**	**NEON-1 (N=58)**	**NEON-2 (N=29)**
Grade 2	1 (2)	0
PSYCHIATRIC DISORDERS	0	1 (3)
Confusional State	0	1 (3)
Grade 2	0	1 (3)
RENAL AND URINARY DISORDERS	1 (2)	1 (3)
Acute Kidney Injury	1 (2)	0
Grade 3	1 (2)	0
Tubulointerstitial Nephritis	0	1 (3)
Grade 3	0	1 (3)
REPRODUCTIVE SYSTEM AND BREAST DISORDERS	1 (2)	0
Testicular Pain	1 (2)	0
Grade 3	1 (2)	0
RESPIRATORY, THORACIC AND MEDIASTINALDISORDERS	3 (5)	1 (3)
Cough	1 (2)	0
Grade 1	1 (2)	0
Haemoptysis	1 (2)	0
Grade 1	1 (2)	0
Oropharyngeal Pain	1 (2)	0
Grade 1	1 (2)	0
Pneumonitis	0	1 (3)
Grade 2	0	1 (3)
Sinus Congestion	1 (2)	0
Grade 1	1 (2)	0
SKIN AND SUBCUTANEOUS TISSUE DISORDERS	21 (36)	3 (10)
Dermatitis Acneiform	1 (2)	0
Grade 1	1 (2)	0
Erythema	1 (2)	0
Grade 1	1 (2)	0
Night Sweats	1 (2)	0
Grade 1	1 (2)	0
Pruritus	4 (7)	0
Grade 1	2 (3)	0
Grade 2	2 (3)	0
Rash	2 (3)	0
Grade 1	2 (3)	0
Rash Macular	5 (9)	0
Grade 1	4 (7)	0

System Organ Class **Preferred Term** **CTCAE Grade, n patients (%)**	**NEON-1 (N=58)**	**NEON-2 (N=29)**
Grade 2	1 (2)	0
Rash Maculo-Papular	8 (14)	2 (7)
Grade 1	6 (10)	2 (7)
Grade 2	2 (3)	0
Rash Papular	1 (2)	0
Grade 2	1 (2)	0
Rash Pruritic	1 (2)	1 (3)
Grade 2	1 (2)	1 (3)
Rosacea	1 (2)	0
Grade 1	1 (2)	0
Urticaria	2 (3)	0
Grade 1	1 (2)	0
Grade 3	1 (2)	0
VASCULAR DISORDERS	0	1 (3)
Hypotension	0	1 (3)
Grade 4	0	1 (3)

Abbreviations: CTCAE, Common Terminology Criteria for Adverse Events

Supplemental Table 4. Patients with ≥Grade 3 Treatment-emergent, Treatment-related Adverse Events

System Organ Class Preferred Term, n patients (%)	**NEON-1 (N=58)**	**NEON-2 (N=29)**
Any ≥Grade 3 Treatment-related adverse event	7 (12)	7 (24)
INVESTIGATIONS	2 (3)	3 (10)
Alanine Aminotransferase Increased	1 (2)	1 (3)
Aspartate Aminotransferase Increased	0	3 (10)
Lipase increased	1 (2)	0
CARDIAC DISORDERS	0	2 (7)
Cardiogenic Shock	0	1 (3)
Immune-mediated myocarditis	0	1 (3)
GASTROINTESTINAL DISORDERS	2 (3)	0
Gastritis	1 (2)	0
Diarrhoea	1 (2)	0
METABOLISM AND NUTRITION DISORDERS	2 (3)	0
Dehydration	1 (2)	0
Hypokalaemia	1 (2)	0
RENAL AND URINARY DISORDERS	1 (2)	1 (3)
Acute kidney injury	1 (2)	0
Tubulointerstitial Nephritis	0	1 (3)
BLOOD AND LYMPHATIC SYSTEMDISORDERS	1 (2)	0
Anaemia	1 (2)	0
GENERAL DISORDERS AND ADMINISTRATION SITE CONDITIONS	1 (2)	0
Fatigue	1 (2)	0
IMMUNE SYSTEM DISORDERS	0	1 (3)
Infusion related reaction	0	1 (3)
REPRODUCTIVE SYSTEM AND BREAST DISORDERS	1 (2)	0
Testicular pain	1 (2)	0
SKIN AND SUBCUTANEOUS TISSUE DISORDERS	1 (2)	0
Urticaria	1 (2	0

Supplemental Table 5. Treatment-emergent Immune-related Adverse Events by Severity

System Organ Class Preferred Term CTCAE Grade, N Patients (%)	**NEON-1 N=58**	**NEON-2 N=29**
Any irAE	22 (38%)	9 (31%)
CARDIAC DISORDERS	0	2 (7)
Immune-Mediated Myocarditis	0	1 (3)
Grade 5	0	1 (3)
Cardiogenic Shock	0	1 (3)
Grade 5	0	1 (3)
ENDOCRINEDISORDERS		
Hyperthyroidism	2 (3)	0
Grade 1	1 (2)	0
Grade 2	1 (2)	0
Hypothyroidism	5 (9)	1 (3)
Grade 1	0	0
Grade 2	5 (9)	1 (3)
GASTROINTESTINAL DISORDERS		
Colitis	1 (2)	0
Grade 2	1 (2)	0
Gastritis	1 (2)	0
Grade 3	1 (2)	0
Stomatitis	0	1 (3)
Grade 1	0	1 (3)
Grade 2	0	0
Terminal Ileitis	1 (2)	0
Grade 2	1 (2)	0
INVESTIGATIONS		
Alanine Aminotransferase Increased	1 (2)	0
Grade 1	1 (2)	0
Grade 2	0	0
Grade 3	0	0
MUSCULOSKELETAL AND CONNECTIVE TISSUE DISORDERS		
Arthralgia	1 (2)	1 (3)
Grade 1	1 (2)	1 (3)
Grade 2	0	0
Arthritis	1 (2)	0
Grade 2	1 (2)	0
Myalgia	1 (2)	0
Grade 1	0	0
Grade 2	1 (2)	0

System Organ Class **Preferred Term** **CTCAE Grade, N Patients (%)**	**NEON-1** **N=58**	**NEON-2** **N=29**
RENAL AND URINARY DISORDERS		
Acute Kidney Injury	1 (2)	0
Grade 3	1 (2)	0
Tubulointerstitial Nephritis	0	1 (3)
Grade 3	0	1 (3)
REPRODUCTIVE SYSTEM AND BREAST DISORDERS		
Testicular Pain	1 (2)	
Grade 3	1 (2)	0
RESPIRATORY, THORACIC AND MEDIASTINALDISORDERS		
Pneumonitis	0	1 (3)
Grade 2	0	1 (3)
SKIN AND SUBCUTANEOUS TISSUE DISORDERS		
Dermatitis Acneiform	1 (2)	0
Grade 1	1 (2)	0
Night Sweats	1 (2)	0
Grade 1	1 (2)	0
Pruritus	2 (3)	0
Grade 1	1 (2)	0
Grade 2	1 (2)	0
Rash Macular	5 (9)	0
Grade 1	4 (7)	0
Grade 2	1 (2)	0
Rash Maculo-Papular	8 (14)	1 (3)
Grade 1	6 (10)	1 (3)
Grade 2	2 (3)	0
Rash Papular	1 (2)	0
Grade 2	1 (2)	0
Rash Pruritic	1 (2)	1 (3)
Grade 2	1 (2)	1 (3)
Rosacea	1 (2)	0
Grade 1	1 (2)	0
Urticaria	2 (3)	0
Grade 1	1 (2)	0
Grade 3	1 (2)	0

Supplemental Table 6. Preliminary Efficacy of Davoceticept Monotherapy and Davoceticept + Pembrolizumab Combination in Renal Cell Carcinoma (RCC)

Trial	Subject	Histology	# Lines of Prior Tx	Prior ICI	Prior TKI	Last Davo Tx	Time on Tx C1D1 through EOT (mos)	BOR	Duration of BOR (mos)	Gr ≥3 TRAEs	irAEs
NEON-1	1-A	ccRCC	3	Yes	Yes	0.1 mg/kg Q1W	2.8	SD (-6.5%)	2.5	• Acute Kidney Injury • Testicular Pain	• Acute Kidney Injury (Gr3) • Pruritis (Gr2) • Rash maculo-papular (Gr1) • Testicular Pain (Gr3)
	1-B	ccRCC	3	Yes	Yes	3 mg/kg Q3W	12.1*	SD (+0.6%)	12.1*	None	None
	1-C	nccRCC (Papillary)	0	No	No	10 mg/kg Q3W	14.3	PR (-65.6%)	9.0	• Urticaria	• ALT Increased (Gr1) • Arthritis (Gr1-2) • Myalgia (Gr2) • Night Sweats (Gr1) • Rash Maculo-papular (Gr2) • Urticaria (Gr3)

Trial	Subject	Histology	# Lines of Prior Tx	Prior ICI	Prior TKI	Last Davo Tx	Time on Tx C1D1 through EOT (mos)	BOR	Duration of BOR (mos)	Gr ≥3 TRAEs	irAEs
NEON-2	2-A	Poorly Diff RCC	1	Yes	Yes	0.1 mg/kg Q3W	8.3*	SD (-25.4%)	7.8*	None	None
	2-B	ccRCC	6	Yes	Yes	0.1 mg/kg, Q1W	16.6*	PR (-45%)	9.3*	None	• Arthralgia (Gr1)

*On-going when trial was terminated

Abbreviations: tx, treatment; ICI, immune checkpoint inhibitor; TKI, tyrosine kinase inhibitor; EOT, end of treatment; mos, Months; BOR, best overall response; Gr, Grade; TRAEs, treatment-related adverse events; irAEs, immune-related adverse Events; ccRCC, clear cell renal cell carcinoma; mg/kg, milligram per kilogram; Q1W, once weekly; SD, stable disease; Q3W, once every 3 weeks; nccRCC, non-clear cell renal cell carcinoma; PR, partial response; ALT, alanine aminotransferase; Diff, differentiated

SUPPLEMENTAL METHODS

Determination of Davoceticept Concentration in Human Serum: An ELISA using proprietary test-article specific mAbs (Alpine Immune Sciences) was used to measure the concentration of davoceticept in patient serum samples.

Drug Saturation: Drug saturation on circulating CD4+ T cells in whole blood was measured by flow cytometry at Alpine Immune Sciences (Seattle, WA) or 360 BioLabs (Melbourne, AUS), using the Cytoflex LX (Beckman Coulter, Inc.) and the LSR Fortessa X-20 (BD Biosciences), respectively for the NEON-1 trial. Each sample was tested for observed drug versus davoceticept spiked-in. Samples were stained with CD3 PE-Cy7 (SP34-2, BD Biosciences), CD4 PerCp-Cy5.5 (SK3, BioLegend), and CD45 BV421 (HI30, BioLegend) before RBCs lysis (Phosflow Lyse/Fix Buffer, BD Biosciences). Proprietary anti-davoceticept conjugated to AF647 (clone 29H4D7, GenScript) was selected for specificity of drug bound to CD28, not PD-L1. Reporting criteria: samples received within stability (2 days), CD3+ T cells >40%, CD4+ T cells >20% and 1000 events, CD8+ T cells >5% and 1000 events, and availability of cycle 1 day 1 pre-dose sample. Percent drug saturation using AF647 MFI was normalized to baseline: [(Observed Test MFI / Saturated Test MFI) - (Observed baseline MFI / Saturated baseline MFI)] x 100. The core NEON-2 trial panel was CD3 BV421 (SP34-2, BD Biosciences), CD4 BV785 (SK3, BD Biosciences), and CD45 BV510 (HI30, BioLegend) and performed at Q^2 Solutions with the Cytek Aurora(Cytek Biosciences).

Anti-drug Antibody Assessment: Patient serum samples were monitored for the presence of davoceticept-specific anti-drug antibody (ADA) using a bridging electrochemiluminescent immunoassay (ECLIA) on the MesoScale Discovery (MSD) platform.

Flow Cytometry: Cryopreserved PBMC were analyzed at Alpine Immune Sciences (Seattle, WA). The core antibody cocktail contained CD45 BV510 (HI30, BioLegend), CD3 AF700 (UCHT1, BD Biosciences), CD4 BUV661 (SK3, BD Biosciences), CD8 BV785 (RPA-T8, BD Biosciences) and LIVE/DEAD Fixable Blue Dead Cell Stain Kit (ThermoFisher). Ki67-APC (Ki-67, BioLegend) staining was performed according to manufacture protocol, eBioscience Foxp3/Transcription Staining Buffer Set (ThermoFisher). Reporting criteria: samples are received within stability (2 days), post-thaw viability >70%, CD3+ T cells >40%, CD4+ T cells >20% and 1000 events, CD8+ T cells >5% and 1000 events, and availability of a cycle 1 day 1 pre-dose sample. Nonparametric, two-tailed t-tests with Wilcoxon matched-pairs signed rank tests were performed, days 1 and 8.

NAMES AND REFERENCE/ID NUMBERS OF COMMITTEES WHO APPROVED NEON-1 AND NEON-2

Site Number	Site Name	PI	IRB	IRB Tracking #
NEON-1				
001	START Midwest	Lakhani	Salus	STMW2019.19
003	Yale	Sznol	Advarra	Protocol #- Pro00042805 Initial approval #- SSU00155999
004	Honor Health	Moser	WIRB	Study # - 1287173 IRB tracking # - 20201807 Institution tracking # - 1621084
006	Norton Cancer Institute	Grewal	WIRB	Study#- 1288992 IRB tracking # - 20201807 Institution tracking # - 20-N0046
007	Horizon Oncology Center	Narayan/Albany	Advarra	Protocol #- Pro00042805
008	UPMC	Davar	WIRB	Study#- 1291478 IRB tracking # - 20201807 Work order number: 1-1343277-1
009	Providence Health	Sanborn	Advarra	Protocol #- Pro00042805 Initial approval #- SSU00149223
101	Nucleus Network	Voskoboynik	The Alfred	Project No: 762/19
102	Linear Clinical Research	Milward	Bellberry HREC	Initial Application No: 2020-03-207
103	Alfred Health	Voskoboynik	The Alfred	HREC/60368/Alfred-2021 (Local Reference: Project 762/19
227	Gabrail Cancer Center	Gabrail	Advarra	Protocol #- Pro00042805 Initial approval #- SSU00191234
NEON-2				
203	The Sarah Cannon Research Institute	McKean	WIRB	Study # - 1310003 Protocol tracking # - 20211877
211	University	Dowlati	University	IRB tracking # -

	Hospitals Cleveland Medical Center		Hospitals Cleveland Medical Center IRB	STUDY20211715
212	Massachusetts General Hospital	Gainor	Mass General Brigham IRB	Protocol #: 2021P002079
213	Emory – Winship Cancer Institute	Cavalcante	WIRB	Study ID: 1310003
215	START San Antonio	Patnaik	Salus IRB	Study ID -Pro00054338
301	START Midwest	Lakhani	Salus IRB	Study ID -Pro00054338
309	Providence Portland Medical Center	Curti	WIRB	Study tracking # - 1320168 Protocol tracking # 20211877 Institution tracking # - STUDY2021000463