PO007LBA/#1550 EFFICACY AND SAFETY OF TRASTUZUMAB DERUXTECAN IN PATIENTS WITH HER2-EXPRESSING SOLID TUMORS: RESULTS FROM THE CERVICAL, ENDOMETRIAL, AND OVARIAN CANCER COHORTS OF THE DESTINY-PANTUMOR02 STUDY

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Introduction Trastuzumab deruxtecan (T-DXd) has demonstrated significant survival benefit for patients with HER2-expressing breast and gastric cancers. In DESTINY-PanTumor02, T-DXd demonstrated clinically meaningful response rates, progression-free survival (PFS), and overall survival (OS) in HER2-expressing tumors.

Methods This open-label, Phase 2 study (NCT04482309) evaluated T-DXd (5.4 mg/kg Q3W) in patients across seven cohorts with HER2-expressing (immunohistochemistry [IHC] 3+/2+ by local [with retrospective central testing] or central testing) locally advanced/metastatic disease after ≥1 systemic treatment, or without alternative treatment. The primary endpoint was investigator-assessed confirmed objective response rate (ORR). Secondary endpoints included duration of response, PFS, OS, and safety. Exploratory endpoints included pharmacodynamic biomarkers.

Results At data cutoff (June 2023), 120 patients in the endometrial, cervical, and ovarian cancer cohorts had received treatment (median follow-up [range]: 19.94 [0.8–31.1], 12.60 [0.9–31.0], and 13.13 [0.7–30.6] months, respectively). Overall, 80.8% received ≥2 prior lines of therapy. Table 1 shows efficacy outcomes by HER2 expression levels by cohort. Table 2 shows ORR by HER2 in situ hybridization (ISH) amplification and plasma *HER2* amplification by cohort. Grade (G)≥3 drug-related adverse events occurred in 54/120 (45.0%) patients; adjudicated treatment-related interstitial lung disease/pneumonitis occurred in 13/120 (10.8%) patients (n=12 G≤2; n=1 G5).

Conclusion/Implications T-DXd demonstrated clinically meaningful benefit, including responses across HER2 expression levels and in ISH+ or plasma *ERBB2* amplified subgroups, and

Abstract PO007LBA/#1550 Table 1

		N	ORR, % (95% CI)		Median DOR, months (95% CI)				Median PFS, months (95% CI)		Median OS, months (95% CI)
			INV	ICR	n	INV	n	ICR	INV	ICR	
Endometrial	All	40	57.5 (40.9, 73.0)	57.5 (40.9, 73.0)	23	NR (9.9, NE)	23	NR (9.9, NE)	11.1 (7.1, NE)	14.1 (7.3, NE)	26.0 (12.8, NE)
	IHC 3+	13	84.6 (54.6, 98.1)	76.9 (46.2, 95.0)	11	NR (9.6, NE)	10	NR (5.8, NE)	NR (7.3, NE)	NR (7.3, NE)	26.0 (18.9, NE)
	IHC 2+	17	47.1 (23.0, 72.2)	52.9 (27.8, 77.0)	8	18.2 (3.0, NE)	9	12.3 (3.0, NE)	8.5 (4.6, 15.1)	11.0 (4.6, 20.3)	16.4 (8.0, NE)
	IHC 1+	4	25.0 (0.6, 80.6)	25.0 (0.6, 80.6)	1	NR (NE, NE)	1	NR (NE, NE)	1.2 (0.8, NE)	1.2 (0.8, NE)	5.2 (0.8, NE)
	IHC 0	5	60.0 (14.7, 94.7)	60.0 (14.7, 94.7)	3	9.9 (2.8, NE)	3	NR (9.9, NE)	9.1 (2.6, NE)	11.1 (2.6, NE)	NR (4.2, NE)
	IHC unknown	1	0 (0.0, 97.5)	0 (0.0, 97.5)	0	-	0	-	NR (NE, NE)	NR (NE, NE)	21.7 (NE, NE)
Cervical	All	40	50.0 (33.8, 66.2)	37.5 (22.7, 54.2)	20	14.2 (4.1, NE)	15	15.6 (8.2, NE)	7.0 (4.2, 11.1)	9.7 (4.4, 16.8)	13.6 (11.1, NE)
	IHC 3+	8	75.0 (34.9, 96.8)	62.5 (24.5, 91.5)	6	NR (9.3, NE)	5	NR (9.3, NE)	NR (3.9, NE)	NR (2.9, NE)	NR (3.9, NE)
	IHC 2+	20	40.0 (19.1, 63.9)	20.0 (5.7, 43.7)	8	3.8 (2.8, NE)	4	8.2 (2.8, NE)	4.8 (2.7, 5.7)	4.4 (2.7, 7.6)	11.5 (5.1, NE)
	IHC 1+	8	50.0 (15.7, 84.3)	50.0 (15.7, 84.3)	4	14.2 (8.3, NE)	4	15.6 (8.5, NE)	11.1 (1.4, NE)	9.7 (1.4, NE)	NR (4.6, NE)
	IHC 0	4	50.0 (6.8, 93.2)	50.0 (6.8, 93.2)	2	NR (6.8, NE)	2	NR (NE, NE)	5.4 (1.3, NE)	NR (1.3, NE)	9.5 (2.6, NE)
Ovarian	All	40	45.0 (29.3, 61.5)	42.5 (27.0, 59.1)	18	11.3 (4.1, 22.1)	17	11.3 (4.2, NE)	5.9 (4.0, 8.3)	7.3 (4.4, 12.6)	13.2 (8.0, 17.7)
	IHC 3+	11	63.6 (30.8, 89.1)	72.7 (39.0, 94.0)	7	22.1 (4.2, NE)	8	NR (4.2, NE)	12.5 (3.1, NE)	7.4 (2.8, NE)	20.0 (3.8, NE)
	IHC 2+	19	36.8 (16.3, 61.6)	31.6 (12.6, 56.6)	7	11.3 (2.8, NE)	6	NR (4.1, NE)	4.1 (2.3, 12.6)	8.2 (2.2, NE)	13.0 (4.7, 21.9)
	IHC 1+	5	20.0 (0.5, 71.6)	20.0 (0.5, 71.6)	1	8.3 (NE, NE)	1	8.3 (NE, NE)	6.9 (0.7, NE)	7.3 (0.7, NE)	7.7 (0.7, NE)
	IHC 0	5	60.0 (14.7, 94.7)	40.0 (5.3, 85.3)	3	4.5 (2.6, NE)	2	10.4 (4.0, NE)	5.6 (1.3, NE)	6.3 (2.8, NE)	12.3 (6.2, NE)

HER2 status was assessed by central testing via HER2 HercepTest™ (Dako)
CI, confidence interval; DOR, duration of response; ICR, independent central review; IHC, immunohistochemistry; INV, investigator; NE, not evaluable; NR, not reached; ORR, objective response rate; OS, overall survival; PFS, progression-free survival

Abstract PO007LBA/#1550 Table 2

			Responders/Total	ORR by INV, % (95% CI)
Endometrial	HER2 amp	ISH+	11/13	84.6 (54.6, 98.1)
		ISH-	9/20	45.0 (23.1, 68.5)
		Unknown	3/7	42.9 (9.9, 81.6)
	Plasma *HER2*amp*	*ERBB2* amplified	10/11	90.9 (58.7, 99.8)
		Not detected	13/29	44.8 (26.4, 64.3)
		Unknown†	0	0
Cervical	HER2 amp	ISH+	6/10	60.0 (26.2, 87.8)
		ISH-	12/26	46.2 (26.6, 66.6)
		Unknown	2/4	50.0 (6.8, 93.2)
	Plasma *HER2*amp*	*ERBB2* amplified	3/4	75.0 (19.4, 99.4)
		Not detected	16/35	45.7 (28.8, 63.4)
		Unknown†	1/1	100.0 (2.5, NE)
Ovarian	HER2 amp	ISH+	6/10	60.0 (26.2, 87.8)
		ISH-	9/25	36.0 (18.0, 57.5)
		Unknown	3/5	60.0 (14.7, 94.7)
	Plasma *HER2*amp*	*ERBB2* amplified	1/1	100.0 (2.5, NE)
		Not detected	15/37	40.5 (24.8, 57.9)
		Unknown†	2/2	100.0 (15.8, NE)

HER2 amplification was evaluated centrally using Ventana dual ISH on archival tissue and detected in baseline plasma ctDNA using Guardant Health OMNI assay; CI calculated using Clopper-Pearson method. *Focal amplification only. †Includes low shedders (no mutations detected, very low frequency mutations, or only variants of uncertain significance detected). amp, amplification; CI, confidence interval; INV, investigator; ISH, in situ hybridization; NE, not evaluable; ORR, objective response rate

encouraging survival outcomes in patients with gynecological tumors. Safety was consistent with the known profile. These data support T-DXd as a potential treatment for patients with gynecological HER2-expressing tumors who progressed on prior therapy.

Plenary 03: Oral Abstract Presentations – Ovarian Cancer

AS11. Ovarian cancer

PO008/#393

TIMED ADOPTIVE T-CELL THERAPY DURING CHEMOTHERAPY IN PLATINUM SENSITIVE RECURRENT EPITHELIAL OVARIAN CANCER, THE OVACURE PHASE I/II TRIAL

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Introduction T-cell infiltration correlates with epithelial ovarian cancer (EOC) survival, suggesting that EOC may be sensitive to ACT with autologous TIL. Carboplatin-paclitaxel (CP) chemotherapy lowers tumor induced immune-suppressive myeloid-cells, thereby creating a window-of-opportunity for TILs. IFNα may support the TIL.

Methods This phase I/II OVACURE trial (NCT04072263) studied the feasibility and safety of TIL during CP +/- IFNα in patients with recurrent platinum-sensitive EOC. Sixteen patients were enrolled. Patients received CP iv q3 weeks, 6x and TIL iv 2 weeks after the 2nd, 3rd and 4th CP +/- IFNα 12 weeks around the TIL infusion. CP +/- IFNα were used for lymphodepletion instead of IL-2. Patients who received 3 TIL cycles were evaluable. Secondary, signs of activity, immunomodulation, and T-cell reactivity were studied.

Results Fourteen patients were evaluable. Median age: 63 years (29–77), 13 HGSOC and 1 LGMOC. TIL could successfully be cultured for all patients. Addition of TIL during CP did not add toxicity, while additional IFNα resulted in grade 3 thrombocytopenia in the first 2 patients. Therefore, it was decided to continue treatment without IFNα. CP reduced plasma IL-6 levels and circulating myeloid-cell numbers. The optimal myeloid/lymphocyte ratio reduction was obtained 1–2 weeks after the 2nd CP. Interestingly, the platinum-free interval (PFI) exceeded the previous PFI after similar CP in 2 patients, including an ongoing PFI which increased from 8 to currently 43+ months.

Conclusion/Implications Combined treatment with CP chemotherapy and timed TIL did not increase toxicity and may result in clinical benefit for patients with EOC.