Zanidatamab + Chemotherapy for First-Line Treatment of Human Epidermal Growth Factor Receptor 2-Positive Advanced or Metastatic Gastro-Oesophageal Adenocarcinoma: New and Updated Data From a Phase 2 Trial

Elena Elimova, 1* Jaffer Ajani, Howard Burris, Crystal Denlinger, Syma Iqbal, Yoon-Koo Kang, Jwa Hoon Kim, Keun-Wook Lee, Bruce Lin, Rutika Mehta, Do-Youn Oh, Sun Young Rha, Young Mi Seol, Chengzhi Xie, Aphillip Garfin, Geoffrey Ku

¹Princess Margaret Cancer Centre, Toronto, ON, Canada; ²The University of Texas MD Anderson Cancer Center, Houston, TX, USA; ³Sarah Cannon Research Institute, Nashville, TN, USA; ⁴Fox Chase Cancer Center, Philadelphia, PA, USA; ⁵University of Southern California, Los Angeles, CA, USA; ⁵Asan Medical Center, University of Ulsan College of Medicine, Seoul, South Korea; 7Korea University College of Medicine, Korea University Anam Hospital, Seoul, South Korea; 8Seoul National University Bundang Hospital, Seoul National University Hospital, Seoul National University College of Medicine, Seongnam, South Korea; 9Virginia Mason Medical Center, Seattle, WA, USA; 10H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL, USA; 11Seoul National University Hospital, Seoul National University Hospital, Seoul National University Hospital, Seoul National University College of Medicine, Seoul National University Hospital, Seoul National Seoul National University College of Medicine, Seoul, South Korea; 12 Yonsei Cancer Center, Yonsei University College of Medicine, Seoul, South Korea; 13 Pusan National University College of Medicine, Seoul, South Korea; 14 Jazz Pharmaceuticals, Palo Alto, CA, USA; 15 Memorial Sloan Kettering Cancer Center, New York, NY, USA *Presenting author.

Background

- Approximately 20% of patients with gastro-oesophageal adenocarcinomas (GEAs) have tumours with human epidermal growth factor receptor 2 (HER2) overexpression/amplification¹
- However, HER2-targeted treatment options for the first-line treatment of patients with metastatic HER2-positive GEA are limited²
- Zanidatamab is a humanised. lgG1-like, dual HER2-targeted bispecific antibody that binds to 2 distinct domains on HER2 in a *trans* orientation, promoting HER2 receptor crosslinking and driving multiple mechanisms of action, including³:
- Immune-mediated effects: complement-dependent cytotoxicity, antibody dependent cellular cytotoxicity and antibody-dependent cellular phagocytosis
- Prevention of HER2 hetero- and homo-dimerisation and intracellular signalling
- Facilitation of HER2 internalisation and subsequent degradation
- In a previous analysis of this ongoing phase 2 trial, zanidatamab + chemotherapy demonstrated encouraging efficacy (confirmed objective response rate [cORR] of 79% and median progression-free survival [PFS] of 12.5 months) as a first-line treatment for patients with HER2-positive advanced or metastatic GEA (mGEA) with a manageable safety profile⁴
- After a median follow-up of 26.5 months, median overall survival (OS) was not yet reached
- Here, we report new and updated results, including OS data

• This phase 2 trial (NCT03929666) is a multicentre, global, open-label, 2-part study of zanidatamab + standard combination chemotherapy for patients with selected unresectable, locally advanced, recurrent or metastatic HER2-expressing gastrointestinal cancers, includina GEA

Figure 1. Study Design for the GEA Cohort





CT/MRI scans Q6W per RECIST v1.16 • PFS

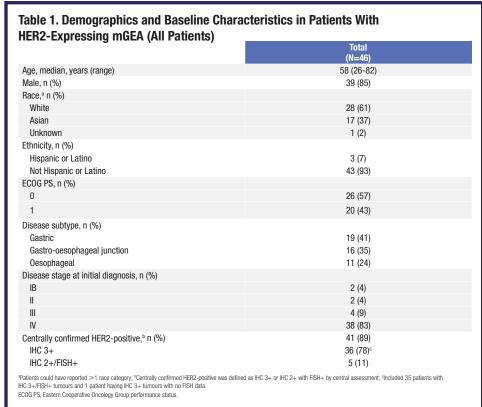
Primary endpointh **Select secondary** Duration of response

• 0S Rate and severity

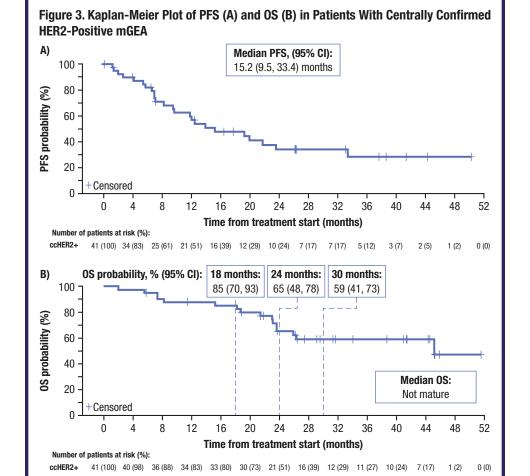
nined by local or central assessment of HER2 status (IHC 3+ or IHC 2+ regardless of FISH status) in Part 1 and by central assessment of HER2 status (IHC 3+ or IHC 2+ and FISH+) n Part 2; "Zanidatamab 30 mg/kg, 1800 mg (patients <70 kg) or 2400 mg (patients 🗦 70 kg); "Per protocol, chemotherapy was required for 6 cycles except for int xaliplatin 130 mg/m² IV Q3W; "FP consisted of cisplatin 80 mg/m² IV Q3W + 5-FU 800 mg/m²/day IV on days 1-5 Q3W; 'Zanidatamab 20 mg/kg, 1,200 mg (patients <70 kg) or 1600 mg natients ≥70 kg) IV Q2W; "mF0LF0X6 consisted of leucovorin 400 mg/m² IV Q2W + oxaliplatin 85 mg/m² IV Q2W + 5-FU 1200 mg/m²/day continuous IV infusion for 48 hours Q2W;

- For patients with advanced HER2-expressing GEA (**Figure 1**):
- Part 1 assessed safety and established the recommended dosing of zanidatamab in combination with 3 multi-agent chemotherapy regimens (CAPOX: capecitabine plus oxaliplatin; FP: 5-fluorouracil [5-FU] plus cisplatin; and modified FOLFOX6 [mFOLFOX6]: 5-FU/leucovorin plus oxaliplatin)
- Eligibility was based on the local or central assessment of HER2 status (immunohistochemistry [IHC] 3+ or 2+ with or without gene amplification)
- Part 2 assessed the antitumour activity of zanidatamab + chemotherapy at doses
- Eligibility was based on the central assessment of HER2 status (centrally confirmed HER2-positive: IHC 3+ or IHC 2+ and fluorescence in situ hybridisation [FISH]+)
- Eligible patients were treated with zanidatamab + physician's choice of combination chemotherapy regimens (≥6 cycles), with mandatory prophylaxis (acetaminophen, diphenhydramine and corticosteroid) for potential infusion-related reactions (IRRs)
- After the first 25 patients were enrolled, mandatory antidiarrhoeal prophylaxis (loperamide 4 mg twice daily starting on the first day of treatment and continuing for ≥7 days) was
- Efficacy analyses reported here include patients from Part 1 and Part 2 with centrally confirmed HER2-positive GEA, and safety analyses include all patients

Results



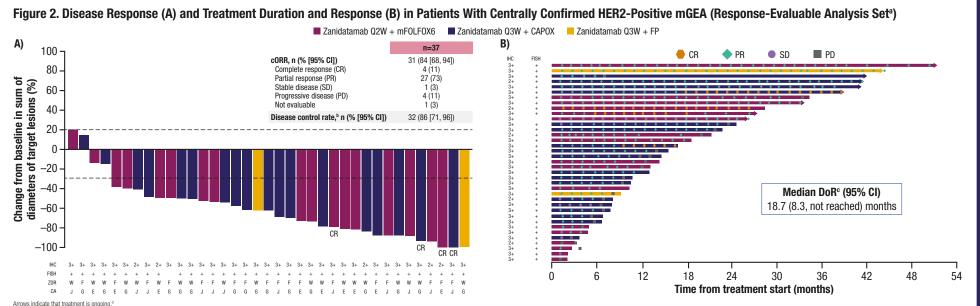
- Between Aug. 2019 and Feb. 2022, 46 patients with metastatic HER2-expressing GEA received zanidatamab in combination with chemotherapy (CAPOX, n=20; FP, n=2; mFOLFOX6, n=24)
- As of 17 Jan. 2024, the median (range) duration of follow-up was 41.5 (23.0-52.7) months - Treatment was ongoing for 10 (22%) patients and 14 (30%) patients were in active post-treatment follow-up
- Overall, 41 (89%) patients had tumours that were centrally confirmed as HER2-positive (**Table 1**) - Of these patients, 37 had ≥1 post-baseline response assessment and were included in the response-evaluable analysis set



• The median PFS increased from the previous analysis⁴ to 15.2 (95% CI: 9.5, 33.4) months

(**Figure 3A**); the longest PFS was 50.4 months, which was reported in a patient who

received zanidatamab + mF0LF0X6 treatment that was ongoing at time of data cut-off



CA, primary diagnosis; E, oesophageal adenocarcinoma; F, flat dose; G, gastric adenocarcinoma; J, gastro-oesophageal junction adenocarcinoma; Q2W, every 2 weeks; Q3W, every 3 weeks; RECIST v1.1, Response Evaluation Criteria in Solid Tumours version 1.1; W, weight-based dose; ZDR, zanidatamab dose regimen.

• With additional follow-up, the cORR increased to 84% (n/N=31/37 [95% confidence interval [CI]: 68, 94]) from 79% (n/N=30/38 [95% CI: 63, 90]) in the previous analysis⁴ One additional patient achieved a complete response (n=4; 11%) (Figure 2)

able 2. Summary of Safety Outcomes in Patients with HEK2-Expressing mgEA (Ali Patients)						
	Zanidatamah L CADOV	Zanidatamah + mEOLEOVG				

	Zanidatamab + CAPOX (n=20) 20 (100) 10 (50) 10 (50) 0 (0) 2 (10) 0 (0)		Zanidatamab + mF0LF0X6 (n=24) 24 (100) 6 (25) 18 (75) 0 (0) 5 (21) 2 (8)		Zanidatamab + FP (n=2) 2 (100) 1 (50) 1 (50) 0 (0) 1 (50) 0 (0)		Total (N=46) 46 (100) 17 (37) 29 (63) 0 (0) 8 (17) 2 (4)°	
Any-grade TRAE, ^a n (%)								
Grades 1-2								
Grades 3-4								
Grade 5								
Serious TRAE, ^a n (%)								
TRAEs leading to zanidatamab discontinuation, n (%)								
	All grades	Grade ≥3	All grades	Grade ≥3	All grades	Grade ≥3	All grades	Grade ≥3
Most common TRAEs, ^{a,b} n (%)								
Diarrhoead	18 (90)	6 (30)	23 (96)	9 (38)	2 (100)	1 (50)	43 (93)	16 (35) ^d
Nausea	15 (75)	1 (5)	21 (88)	2 (8)	1 (50)	0 (0)	37 (80)	3 (7)
Peripheral neuropathy	14 (70)	0 (0)	16 (67)	0 (0)	0 (0)	0 (0)	30 (65)	0 (0)
Fatigue	7 (35)	0 (0)	16 (67)	2 (8)	0 (0)	0 (0)	23 (50)	2 (4)
Decreased appetite	7 (35)	0 (0)	13 (54)	0 (0)	1 (50)	0 (0)	21 (46)	0 (0)
Vomiting	4 (20)	1 (5)	12 (50)	2 (8)	0 (0)	0 (0)	16 (35)	3 (7)
Hypokalaemia	3 (15)	2 (10)	11 (46)	8 (33)	0 (0)	0 (0)	14 (30)	10 (22)
Stomatitis	3 (15)	0 (0)	10 (42)	0 (0)	0 (0)	0 (0)	13 (28)	0 (0)
Anaemia	1 (5)	0 (0)	9 (38)	0 (0)	0 (0)	0 (0)	10 (22)	0 (0)
Dysgeusia	5 (25)	0 (0)	5 (21)	0 (0)	0 (0)	0 (0)	10 (22)	0 (0)
IRR	6 (30)	0 (0)	3 (12)	0 (0)	1 (50)	0 (0)	10 (22)	0 (0)
Decreased neutrophil count	3 (15)	0 (0)	7 (29)	2 (8)	0 (0)	0 (0)	10 (22)	2 (4)
PPE	8 (40)	1 (5)	2 (8)	0 (0)	0 (0)	0 (0)	10 (22)	1 (2)
Hypomagnesaemia	3 (15)	0 (0)	6 (25)	1 (4)	0 (0)	0 (0)	9 (20)	1 (2)
Decreased white blood cell count	0 (0)	0 (0)	7 (29)	2 (8)	0 (0)	0 (0)	7 (15)	2 (4)
Acute kidney injury	0 (0)	0 (0)	2 (8)	1 (4)	1 (50)	1 (50)	3 (7)	2 (4)
Treatment-related AESI occurring in an	y patient, n (%)							
IRR	6 (30)	0 (0)	3 (12)	0 (0)	1 (50)	0 (0)	10 (22)	0 (0)
Ejection fraction decreased	0 (0)	0 (0)	2 (8)	0 (0)	0 (0)	0 (0)	2 (4)	0 (0)
Pneumonitis	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

- All 46 patients with HER2-expressing metastatic GEA experienced ≥1 treatment-related adverse event (TRAE), deemed related to zanidatamab and/or chemotherapy
- Grade ≥3 TRAEs occurred in 29 (63%) patients (Table 2), similar to the previous analysis (n=28; 61%)⁴
- Diarrhoea remained the most common grade ≥3 TRAE (n=16; 35%)⁴
- At time of data cut-off, grade ≥3 diarrhoea events were resolved in 9 patients, and remained ongoing but were mitigated to grade 1 or 2 in 7 patients
- The incidence of grade ≥3 diarrhoea was lower after antidiarrhoeal prophylaxis was implemented
- Treatment-related grade ≥3 diarrhoea occurred in 3 out of 21 patients (14%) for whom antidiarrhoeal prophylaxis was mandated compared with 13 out of 25 patients (52%) without antidiarrhoeal prophylaxis
- Treatment-related grade ≥3 diarrhoea predominantly occurred during Cycle 1; the median duration was 3 (interquartile range: 2-5) days, irrespective of the cycle in which the adverse
- Treatment-related IRRs occurred in 10 patients (22%), and all events were grades 1-2
- Serious TRAEs occurred in 8 (17%) patients; no new patients reported a serious TRAE since the previous analysis⁴
- There were no treatment-related deaths

out of 21 patients (14%) had grade ≥3 diarrhoea after receiving antidiarrhoeal prophyla

Conclusions

- With approximately 3.5 years of median follow-up, first-line treatment with zanidatamab + standard chemotherapy continues to show promising and antitumour activity in patients with HER2-positive metastatic GEA
- The cORR was 84% with 4 complete responses
- The median DoR was 18.7 months
- The median PFS was 15.2 months
- Kaplan-Meier—estimated 30-month OS was 59%
- The safety and tolerability profile of zanidatamab + chemotherapy remained manageable with no new safety signals identified⁴
- The incidence of grade ≥3 diarrhoea was <15% for patients treated after the implementation of mandated antidiarrhoeal prophylaxis
- Treatment discontinuation due to TRAEs were infrequent, and there were no treatment-related deaths
- The clinical development of zanidatamab in HER2-positive GEA is ongoing
- The global, randomised, phase 3 trial of HERIZON-GEA-01 (NCT05152147) is currently enrolling patients to assess the efficacy and safety of zanidatamab plus chemotherapy with or without tislelizumab, a PD-1 inhibitor, in the first-line setting for patients with HER2-positive advanced or metastatic GEA

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