Therapeutic Developments in GI Cancers



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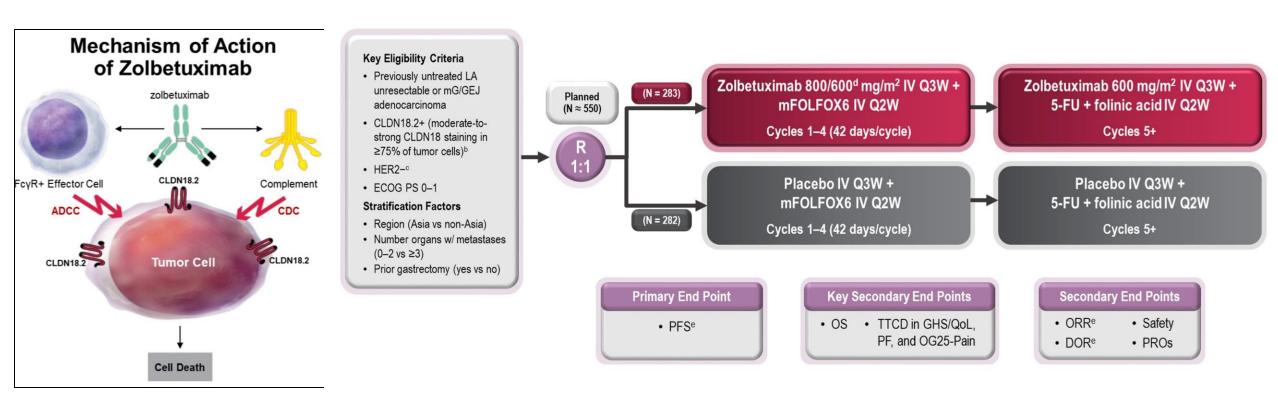
Disclosures:

- Consultant:
 - Amgen
 - Elevation
 - General Electric
 - GSK
 - IGM
 - Merck
 - Natera
 - Pfizer
 - Seagen
 - Taiho
- Institutional Grants
 - Agenus
 - Elevar
 - Gritstone
 - Hutchmed
 - Janssen
 - Merck
 - Pfizer
 - Sumitomo

Discussion Points

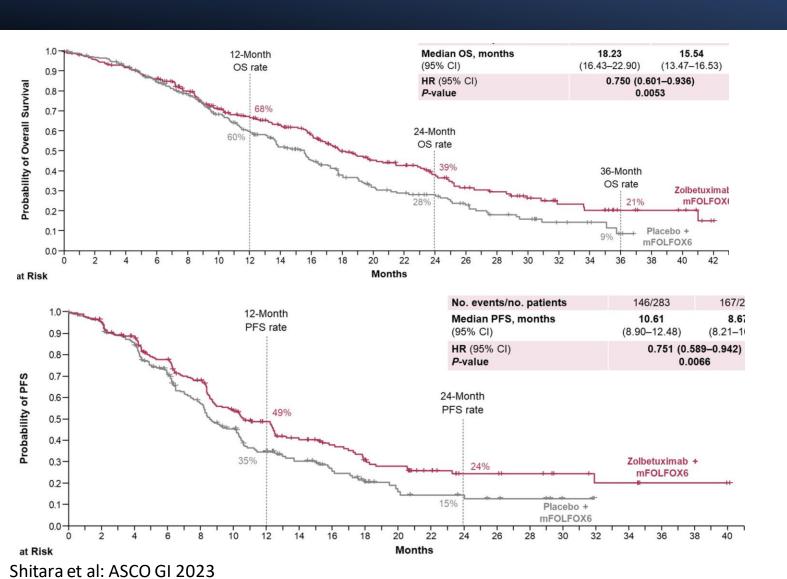
- UGI
- Hepatobiliary
- Pancreatic
- Colorectal
- Anal

Phase III Trial of SPOTLIGHT in Gastric/GEJ Ca



aStudy was conducted at 215 sites in 20 countries across Australia, Asia, Europe, N. America, and S. America; By central IHC using the analytically validated VENTANA CLDN18 (43-14A) RxDx Assay; By central or local HER2 testing; 800 mg/m² at cycle 1 day 1 followed by 600 mg/m² on cycle 1 day 22 and days 1 and 22 of subsequent cycles: Per RECIST v1.1 by independent review committee.

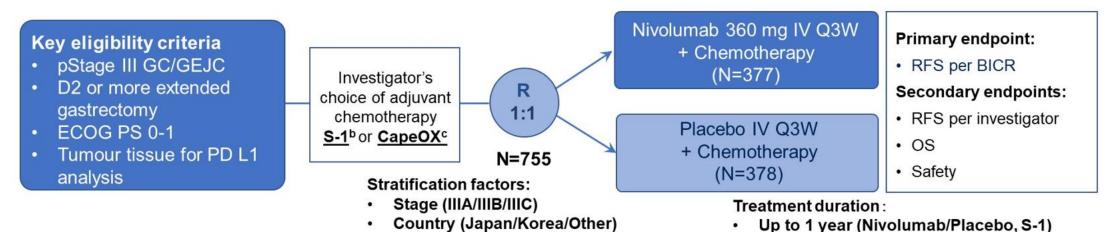
SPOTLIGHT: PFS and OS



	Zolbetuximab + mFOLFOX6 (N = 211)	Placebo + mFOLFOX6 (N = 211)
Patients ^a , n	128	131
ORR ^b , % (95% CI)	60.7 (53.72–67.30)	62.1 (55.17–68.66)
BOR ^{c,d} , n (%)		
CR	12 (5.7)	7 (3.3)
PR	116 (55.0)	124 (58.8)
SD	45 (21.3)	52 (24.6)
PD	14 (6.6)	14 (6.6)
Median DOR ^b , months, (95% CI)	8.51 (6.80-10.25)	8.11 (6.47–11.37)
3rd quartile, months (95% CI)	29.9 (10.41-NE)	15.5 (13.27–NE)

Attraction-5: Phase III trial of Adjuvant Nivo in Gastric/GEJ CA

Phase 3, double-blind, placebo-controlled study of Asian patients (Japan, Korea, Taiwan, China)^a



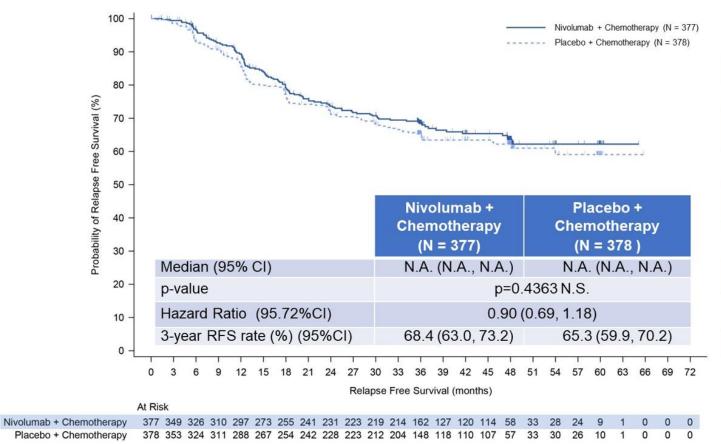
- Planned sample size: 700 patients (assuming HR=0.67; 3-year RFS, 71% vs 60%)
- Patients were randomized from February 2017 to August 2019
- All data are based on a clinical data cutoff of August 2022, at which point the minimum follow-up after the last patient randomized was 36 months

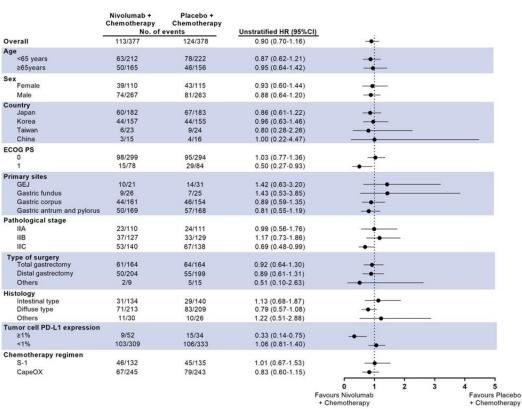
^aClinicalTrials.gov number, NCT03006705; ^bS-1 therapy: S-1 40 mg/m²/dose orally twice daily (day1-28), Q6W; ^cCapeOX therapy: Oxaliplatin 130 mg/m² IV once daily (day1), and Capecitabine 1000 mg/m²/dose orally twice daily (day1-14), Q3W.

Abbreviations: BICR, blinded independent central review; CapeOX, capecitabine/oxaliplatin; GC, gastric cancer; GEJC, gastroesophageal junction cancer; IV, intravenous; Q3W, every 3 weeks; Q6W, every 6 weeks; S-1, tegafur/gimeracil/oteracil; BICR, blinded independent central review

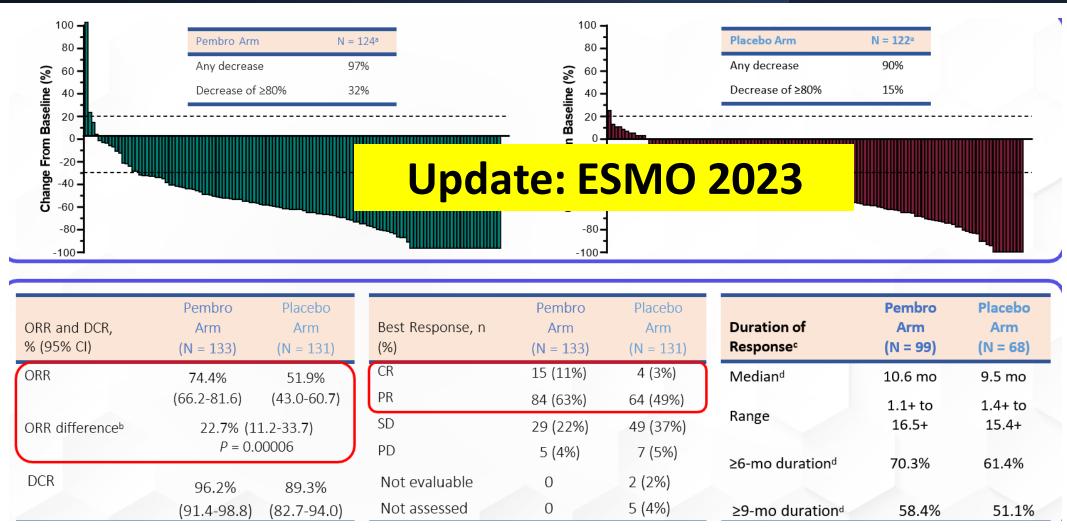
Up to 6 months (CapeOX)

Results of ATTRACTION-5





Phase III Keynote 811 Study: Trastuzumab/Chemotherapy +/- Pembrolizumab



Janjigian et al: Nature 2021

MATTERHORN: Neoadjuvant/adjuvant Durva+FLOT in Resectable Gastric/GEJ Cancer

Double-blind

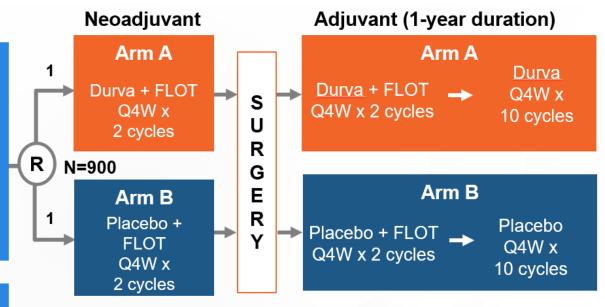
Study Population

- Gastric or GEJ adenocarcinoma
- Stage II, III, and IVA
 (>T2 N0-3 M0 or T1-4 N+ M0)
- No evidence of metastasis
- No prior therapy
- ECOG PS 0 or 1

Stratification factors

- Geographic region (Asia vs non-Asia)
- Clinical lymph node status (positive vs negative)
- PD-L1 expression status*

*TIP<1% vs TIP≥1%. †TIP<1% vs TIP≥1% vs TIP≥5%



FLOT: 5-FU 2600 mg/m², oxaliplatin 85 mg/m², docetaxel 50 mg/m², leucovorin 200 mg/m² on days 1 and 165 Q4W

Durvalumab: 1500 mg on day 1 Q4W

Durvalumab (or placebo) monotherapy may be initiated if adjuvant chemo is discontinued before the 2-cycle completion

IDMC safety review: safety from the first dose of neoadjuvant therapy to recovery from surgery will be assessed in the first 60 patients or at 6 months from FSI, whichever occurs first (minimum of 20 patients)

Primary Endpoint

• EFS (ITT)

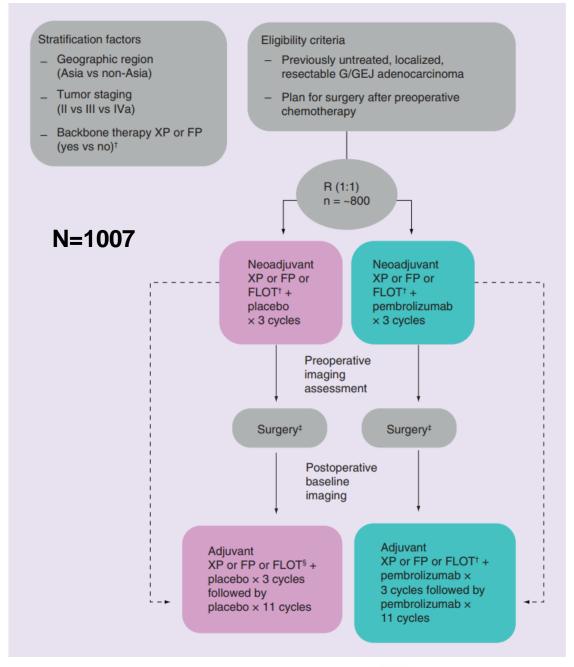
Key Secondary Endpoints

pCR and OS

Secondary Endpoints

- OS24/36 and EFS24/36
- EFS (investigator)
- DFS and DFS24/36
- MFS and DSS
- R0 resection rate
- PROs
- All the efficacy endpoints in ITT and PD-L1 subgroups[†]

blind study of perioperative pembrolizumab vs placebo plus chemotherapy in resectable gastric and GEJ adenocarcinoma



Press Releases: To be presented ESMO 2023

June 2023:

MATTERHORN:

- Durvalumab plus chemotherapy significantly improved pathologic complete response in gastric and gastroesophageal junction cancers in MATTERHORN Phase III trial
- Trial will continue to assess event-free survival

Keynote 585

- At a pre-specified interim analysis conducted by an independent Data Monitoring Committee, the study met <u>one</u> of its primary endpoints of pathological complete response (pCR) rate and demonstrated a statistically significant improvement in pCR rates compared with chemotherapy alone
- For the primary endpoint of event-free survival (EFS), there was an improvement in the KEYTRUDA arm; however, results <u>did not meet statistical significance</u> per the prespecified statistical analysis plan

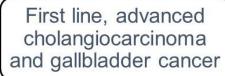
SWOG 1815: Gemcitabine/Cisplatin +/- Nab-Paclitaxel in Tx Naïve Advanced Biliary Cancers

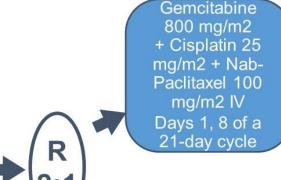
Study Design

Prespecified stratifications factors: tumor type, PS, locally-advanced vs. metastatic

Key Inclusion/Exclusion:

- Newly diagnosed, histologically proven untreated BTCs
- ECOG PS 0-1
- Adequate laboratories





Gemcitabine 1000 mg/m2 + Cisplatin 25 mg/m2 IV Days 1, 8 of a 21-day cycle N = 441

FIRST PATIENT IN: 2/2019

CLOSED TO ACCRUAL 2/15/2021

Restage every 3 cycles until progression

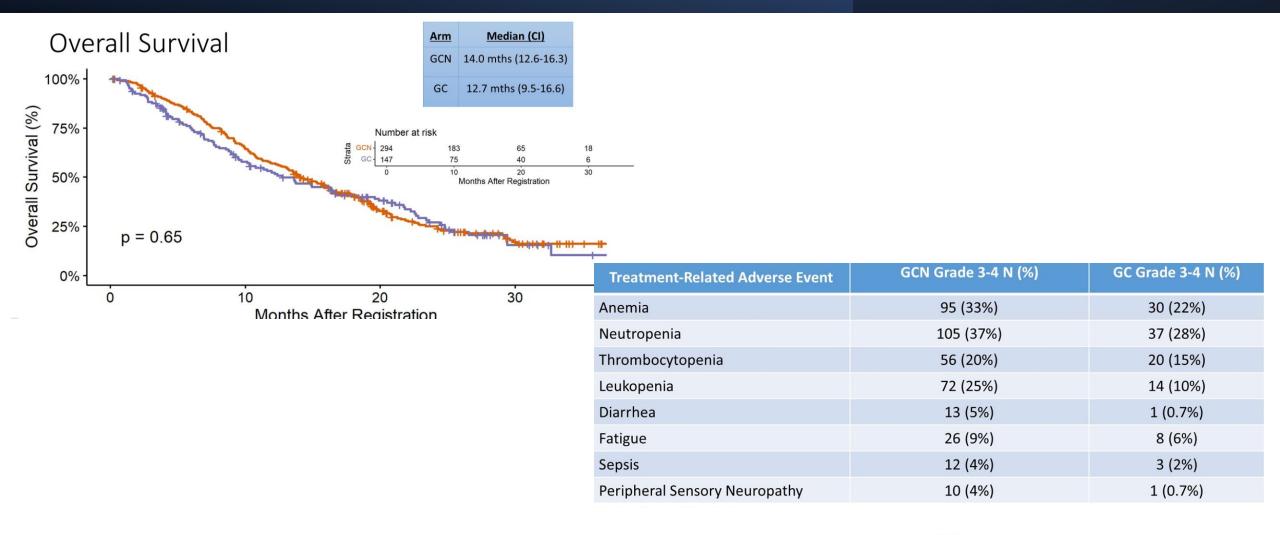
Primary EP: OS; Target HR 0.7

Secondary: ORR, PFS, DCR, safety, CA 19-9 changes

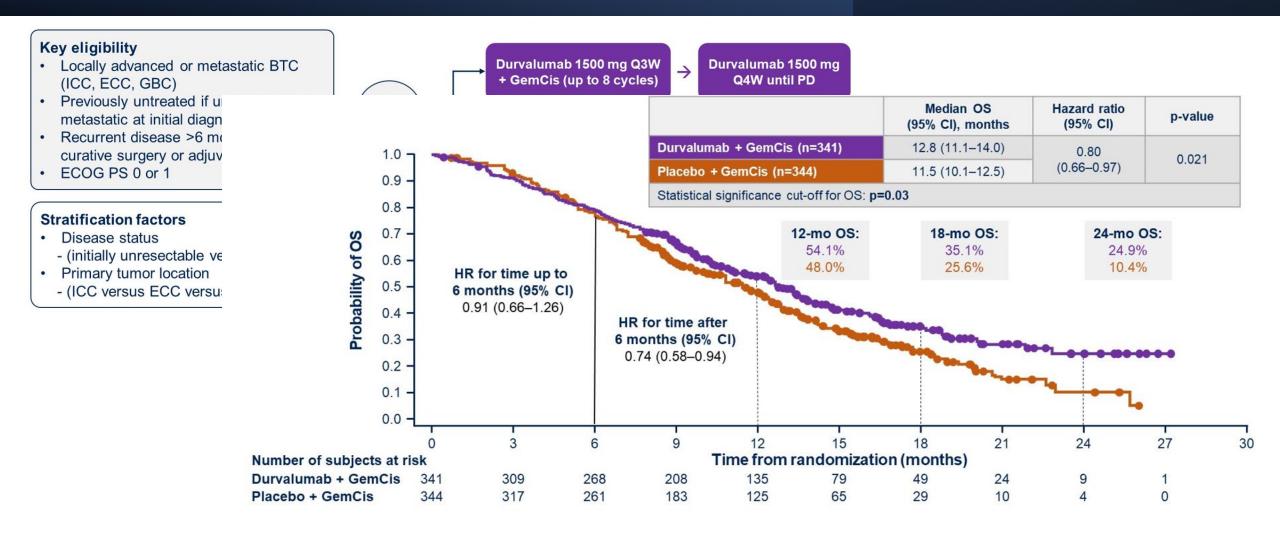
Archival blood and tissue specimens to be banked



SWOG 1815: Gemcitabine/Cisplatin +/- Nab-Paclitaxel in Tx Naïve Advanced Biliary Cancers

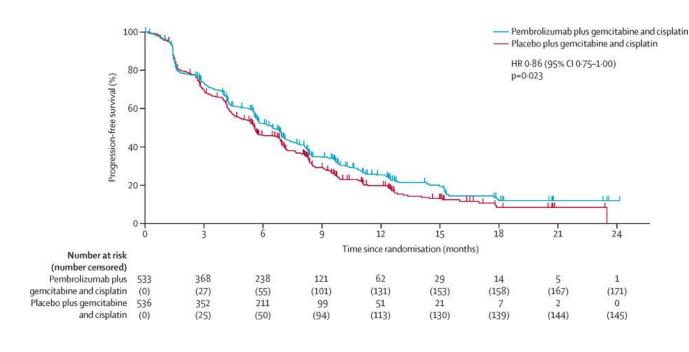


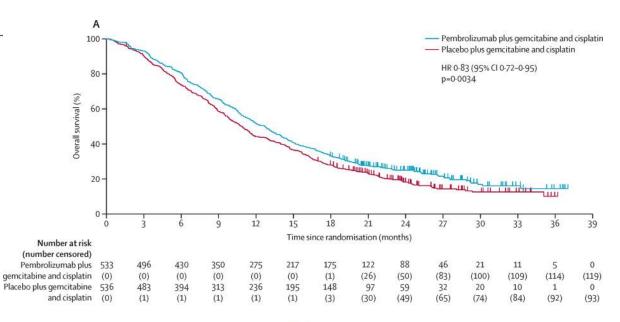
TOPAZ-1: Gem/Cis +/- Durvalumab



Oh et al: NEJM, 2022

Keynote 966: Gem-cis with or without pembrolizumab





ImBrave 151: Double Blinded Randomized Phase II of Gem/Cis/Atezo +/- Bev in Tx-Naïve Biliary Cancer

Advanced biliary tract cancer (n=162)

- Histologically confirmed intrahepatic cholangiocarcinoma, extrahepatic cholangiocarcinoma or gallbladder cancer
- ECOG PS 0/1
- Measurable disease per RECIST 1.1
- No prior systemic treatment for advanced BTC
- Screening EGD required for patients at high risk of esophageal varices

Cycles 1-8 Cycle 9 and beyond (21-day cycles) (21-day cycles) Gemcitabine (1000 mg/m² IV on Days 1 and 8) Cisplatin (25 mg/m² IV on Days 1 and 8) Bevacizumab (15 mg/kg IV q3w) Treat until disease progression. Atezolizumab (1200 mg IV q3w) unacceptable 1:1 toxicity or loss of clinical benefit Gemcitabine (1000 mg/m² IV on Days 1 and 8) Cisplatin (25 mg/m² IV on Days 1 and 8) No crossover Placebo (IV q3w) Atezolizumab (1200 mg IV q3w)

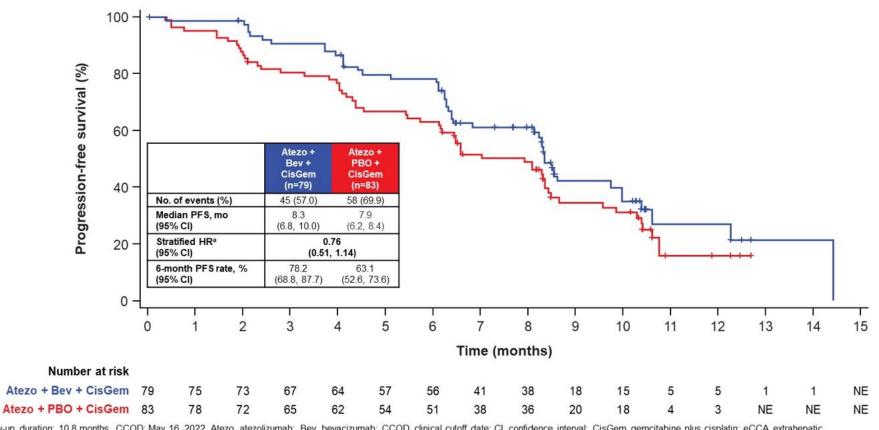
Stratification factors

- Anatomical location of primary tumor (iCCA, eCCA or GBC)
- Metastatic disease (yes or no)
- Geographic region (Asia vs rest of world)

Key endpoints

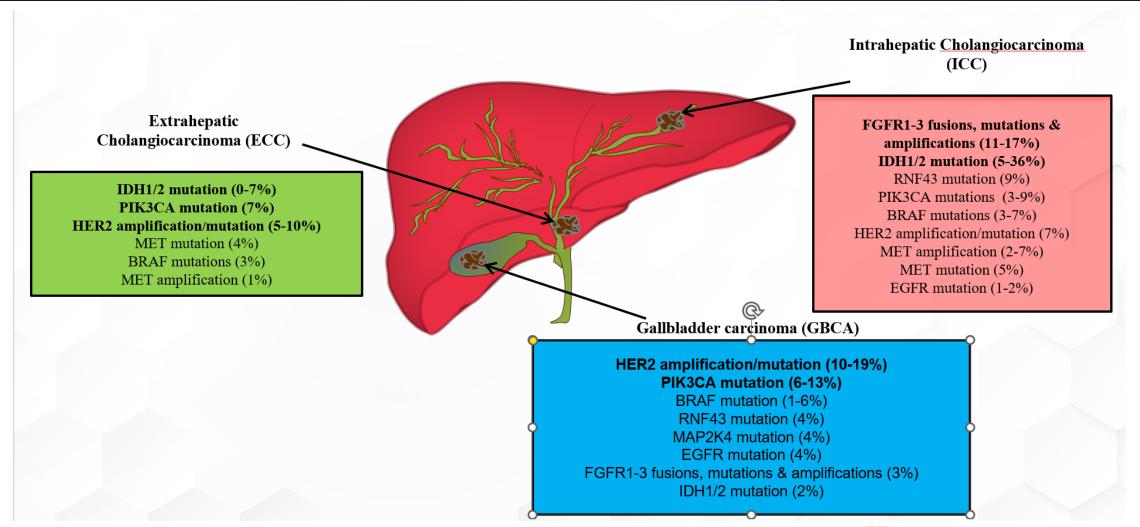
- Primary endpoint: PFS^a
- Key secondary endpoints: ORR, a duration of response, a DCR, a OS, safety, PRO/QOL
- Exploratory endpoints: 6-month PFS and OS rates, biomarkers, PRO-CTCAE

Primary endpoint: PFS for ImBrave 151



Median follow-up duration: 10.8 months. CCOD: May 16, 2022. Atezo, atezolizumab; Bev, bevacizumab; CCOD, clinical cutoff date; Cl, confidence interval; CisGem, gemcitabine plus cisplatin; eCCA, extrahepatic cholangiocarcinoma; GBC, gall bladder carcinoma; HR, hazard ratio; iCCA, intrahepatic cholangiocarcinoma; NE, not estimable; PBO, placebo; PFS, progression-free survival. aStratification factors are location of primary tumor (iCCA vs eCCA vs GBC) and geographic region (Asia vs rest of world).

Molecular Alterations in Biliary Cancer





2023 **ASCO** ANNUAL MEETING

Results from the Pivotal Phase 2b HERIZON-BTC-01 Study: Zanidatamab in Previously-treated **HER2-amplified Biliary Tract Cancer (BTC)**

Shubham Pant, MD¹; Jia Fan, MD, PhD²; Do-Youn Oh, MD, PhD³; Hye Jin Choi, MD, PhD⁴; Jin Won Kim, MD, PhD⁵; Heung-Moon Chang, MD, PhD⁶; Legun Bao, MD⁷; Sun Huichuan, MD, PhD²; Teresa Macarulla, MD, PhD⁸; Feng Xie, MD⁹; Jean-Philippe Metges, MD¹⁰; Jie'er Ying, MD¹¹; John A Bridgewater, MD, PhD¹²; Myung-Ah Lee, MD, PhD¹³; Mohamedtaki A Tejani, MD¹⁴; Emerson Y Chen, MD, MCR¹⁵; Dong Uk Kim, MD¹⁶; Harpreet Wasan, MD, FRCP¹⁷; Michel Ducreux, MD. PhD¹⁸: Yuanyuan Bao, MS¹⁹: Lin Yang, PhD²⁰: JiaFang Ma, MD¹⁹: Phillip M Garfin, MD²⁰: James J Harding, MD²¹

¹MD Anderson Cancer Center, Houston, Texas, US; ²Affiliated Zhongshan Hospital of Fudan University, Shanghai, China; ³Seoul National University Hospital, Seoul, Korea; ⁴Severance Hospital, Yonsei University College of Medicine, Seoul, Korea; ⁵Seoul National University Bundang Hospital, Seoul National University College of Medicine, Seongnam, Korea; Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea; Hubei Cancer Hospital, Hubei, China; Vall d'Hebrón University Hospital and Vall d'Hebrón Institute of Oncology, Barcelona, Spain; 9The Third Affiliated Hospital of the Chinese PLA Naval Military Medical University, Shanghai, China; 10CHRU de Brest-Hopital Morvan, ARPEGO Network, Brest, France; 11Zhejiang Cancer Hospital, Hangzhou, China; 12University College London Cancer Institute, London, UK; 13The Catholic University of Korea, Seoul St. Mary's Hospital, Seoul, Korea; 14AdventHealth, Orlando, Florida, US; 15Oregon Health & Science University, Knight Cancer Institute, Portland, Oregon, US; ¹⁶Pusan National University Hospital, Busan, Korea; ¹⁷Hammersmith Hospital, Imperial College, London, UK; ¹⁸Université Paris-Saclay, Gustave Roussy, Villejuif, France; ¹⁹BeiGene (Beijing) Co., Ltd., Beijing, China; ²⁰Current Jazz Pharmaceuticals employee and former Zymeworks employee during the conduct of the study; ²¹Memorial Sloan Kettering Cancer Center, New York, New York, US

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PRESENTED BY: Shubham Pant, MD



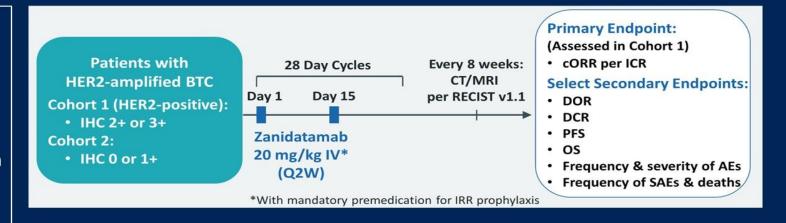
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HERIZON-BTC-01 Study Design

· Phase 2b study of zanidatamab monotherapy in patients with HER2-amplified BTC

Key Eligibility Criteria

- Locally advanced or metastatic BTC¹
- Tissue required to confirm HER2 status by central lab
- Progressed after treatment with a gemcitabine-containing regimen
- No prior HER2-targeted therapies
- ECOG PS of 0 or 1



AE = adverse event; cORR = confirmed objective response rate; CT = computed tomography scan; DCR = disease control rate; DOR = duration of response; ECOG PS = Eastern Cooperative Oncology Group performance status; ICR = independent central review; IHC = immunohistochemistry; IRR = infusion-related reaction; IV = intravenous; MRI = magnetic resonance imaging; OS = overall survival; Q2W = every two weeks; RECIST= Response Evaluation Criteria in Solid Tumors; SAE = serious adverse event.





PRESENTED BY: Shubham Pant, MD

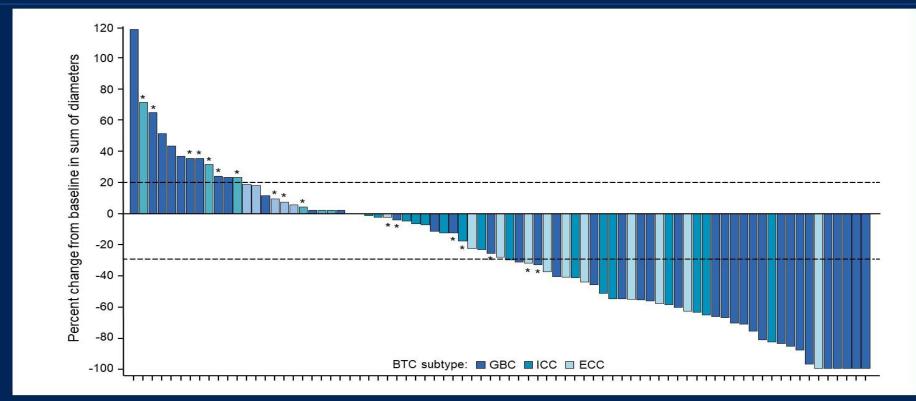
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¹ Excludes ampullary



Majority of evaluable patients (68.4%) had a decrease in target lesions (Cohort 1)



*Indicates patients with IHC 2+ status; all other patients had IHC status of 3+.

Dotted lines indicate 20% increase and 30% decrease in sum of diameters of target tumors.





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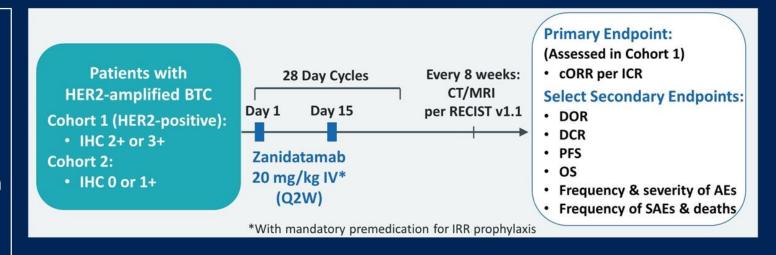
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Phase 2b HERIZON-BTC-01: Zanidatamab in Previously Treated HER-2 Amplified Biliary Tract Cancer

Key Eligibility Criteria

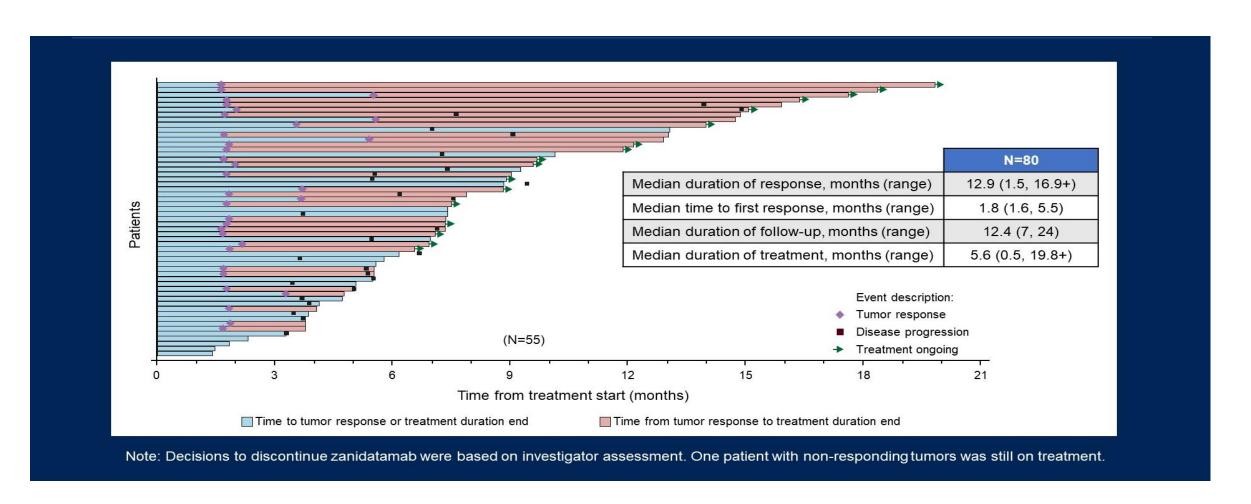
- Locally advanced or metastatic BTC¹
- Tissue required to confirm HER2 status by central lab
- Progressed after treatment with a gemcitabine-containing regimen
- No prior HER2-targeted therapies
- ECOG PS of 0 or 1



AE = adverse event; cORR = confirmed objective response rate; CT = computed tomography scan; DCR = disease control rate; DOR = duration of response; ECOG PS = Eastern Cooperative Oncology Group performance status; ICR = independent central review; IHC = immunohistochemistry; IRR = infusion-related reaction; IV = intravenous; MRI = magnetic resonance imaging; OS = overall survival; Q2W = every two weeks; RECIST=Response Evaluation Criteria in Solid Tumors; SAE = serious adverse event.

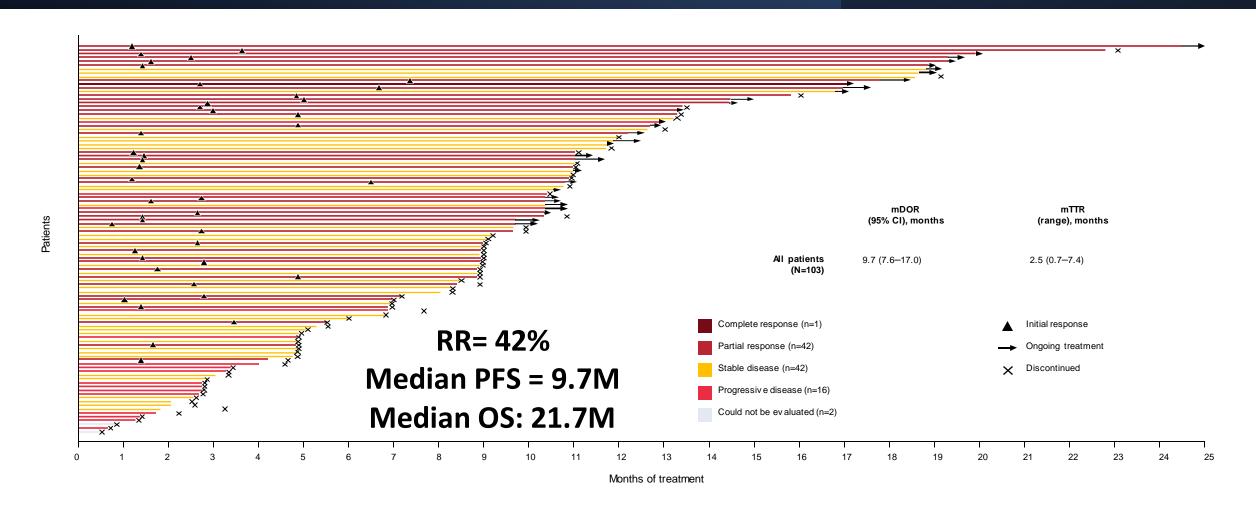
¹ Excludes ampullary

Phase 2b HERIZON-BTC-01: Zanidatamab in Previously Treated HER-2 Amplified BTC – Response

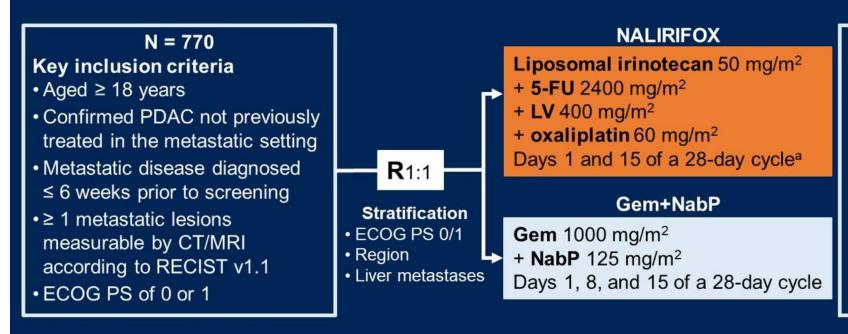


Pant et al: ASCO 2023

Futibatinib in FGFR2 Rearranged Intrahepatic Cholangio: FOENIX-CCA2 Study



NAPOLI-3: NALIRIFOX vs. Gem/NabP in PDAC

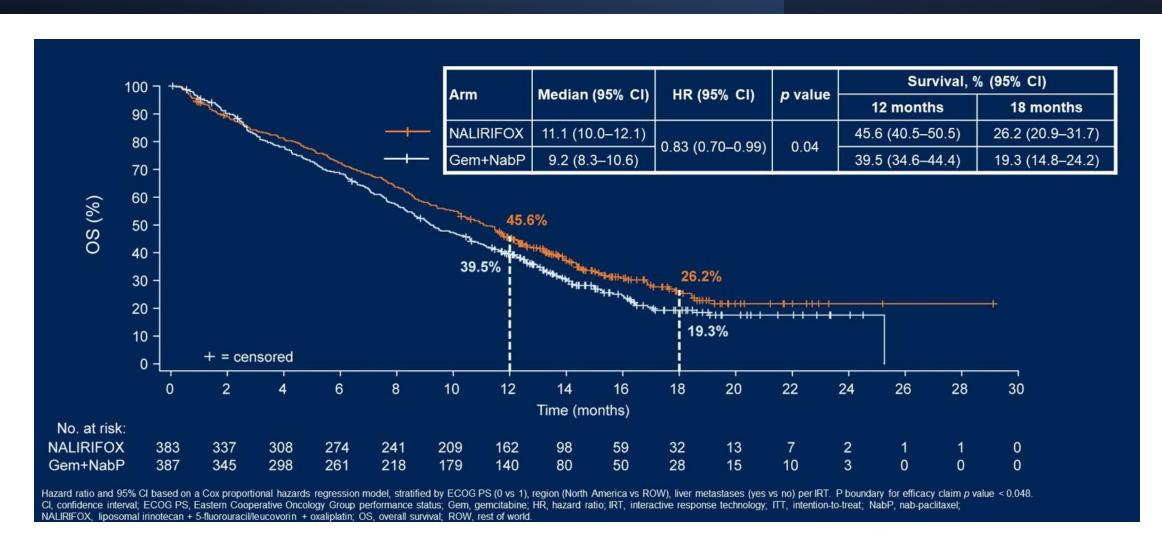


- Tumor assessment every 8 weeks per RECIST v1.1^b
- Treatment until disease progression, unacceptable toxicity or study withdrawal
- AEs recorded and coded using MedDRA (v24.0); severity graded by NCI-CTCAE (v5.0)
- Follow-up every 8 weeks until death or study end^c

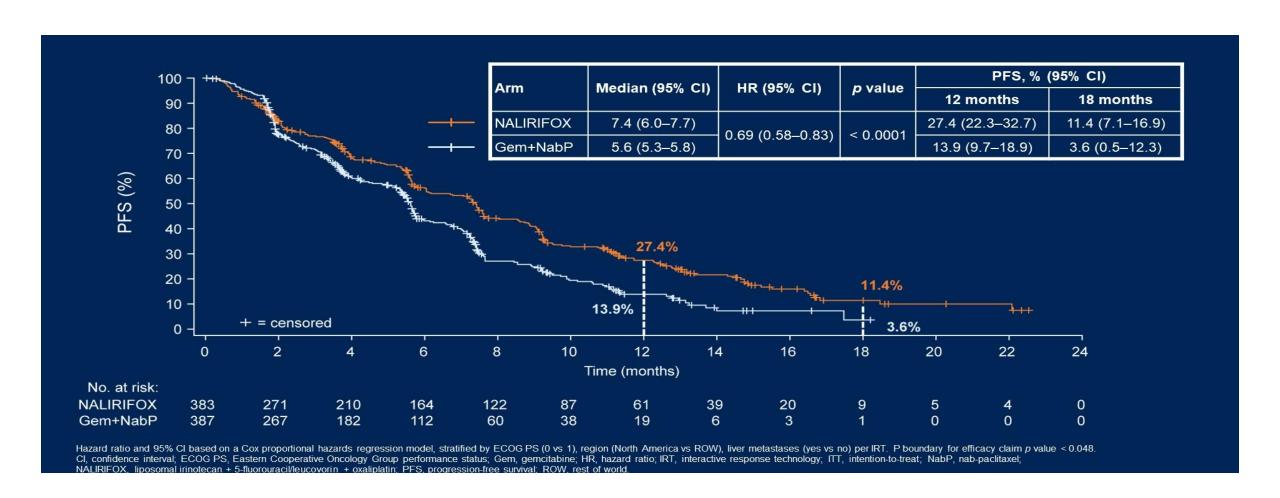
[®]Administered sequentially as a continuous infusion over 46 hours on days 1 and 15 of a 28-day cycle (dose delays and oxaliplatin discontinuation were permitted). [®]Until progressive disease. [©]The study was completed once all patients had discontinued the study treatment and at least 543 OS events had occurred in randomized patients.

5-FU, 5-fluorouracil; CT, computed tomography; ECOG PS, Eastern Cooperative Oncology Group performance status; Gem, gemcitabine; LV, leucovorin; MedDRA, Medical Dictionary for Regulatory Activities; MRI, magnetic resonance imaging; NabP, nab-paclitaxel; NALIRIFOX, liposomal irinotecan + 5-fluorouracil/leucovorin + oxaliplatin; NCI-CTCAE, National Cancer Institute Common Terminology Criteria for Adverse Events; PDAC, pancreatic ductal adenocarcinoma; R, randomization; RECIST, Response Evaluation Criteria in Solid Tumors.

NAPOLI-3: Primary Endpoint for OS



NAPOLI-3: PFS (ITT)

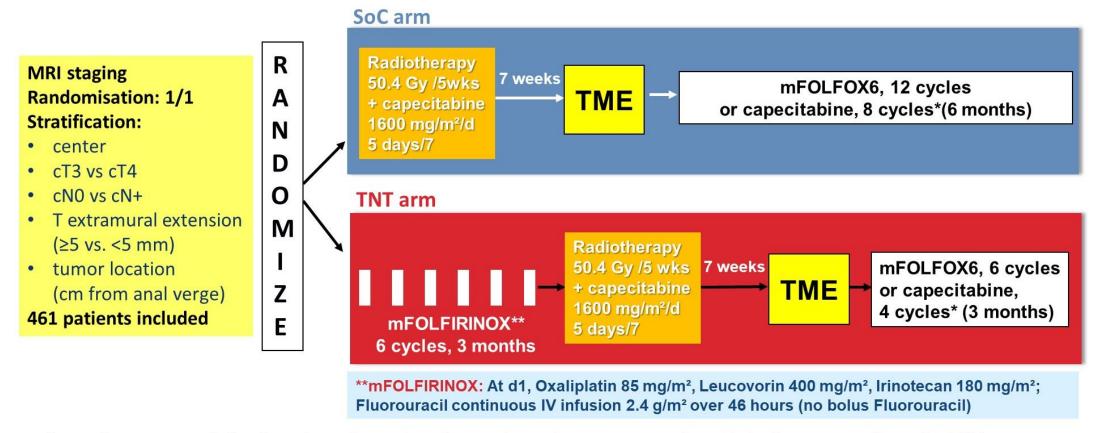


NAPOLI-3: SAE's

	NALIRIFOX (n = 370)		Gem+NabP (n = 379)	
Any-cause TEAEs in ≥10% of patients, %a	Any grade	Grade 3-4	Any Grade	Grade 3–4
Hematologic				
Neutropenia ^b / febrile neutropenia	50.0 / 2.4	23.8 / 2.4	50.6 / 2.6	38.0 / 2.4
Anemia	26.2	10.5	40.4	17.4
Thrombocytopenia ^c	24.0	1.6	40.6	6.1
Non-hematologic			i i	
Diarrhea	70.5	20.3	36.7	4.5
Nausea	59.5	11.9	42.7	2.6
Vomiting	39.7	7.0	26.4	2.1
Hypokalemia	31.6	15.1	12.9	4.0
Peripheral neuropathyd	32.9	6.7	30.9	8.7
Paresthesia	11.9	0.3	8.7	0.5
Pyrexia	10.5	0.8	23.0	1.6

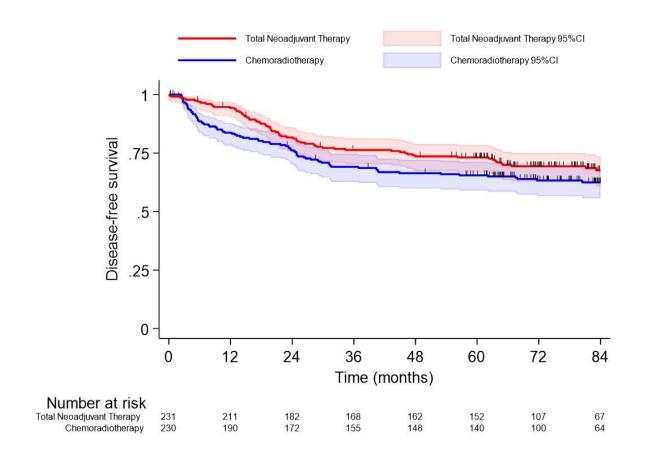
Rectal Cancer: MSI-S

PRODIGE 23: Phase III Rectal CA



^{*}according to center choice throughout the study; adjuvant chemotherapy was mandatory in both arms regardless of ypTNM stage.

PRODIGE 23: Phase III Rectal CA - DFS



155 events

7-yr DFS rate:

- 67.6% [95%CI: 60.7-73.6] TNT arm
- 62.5% [95%CI: 55.6-68.6] SoC arm

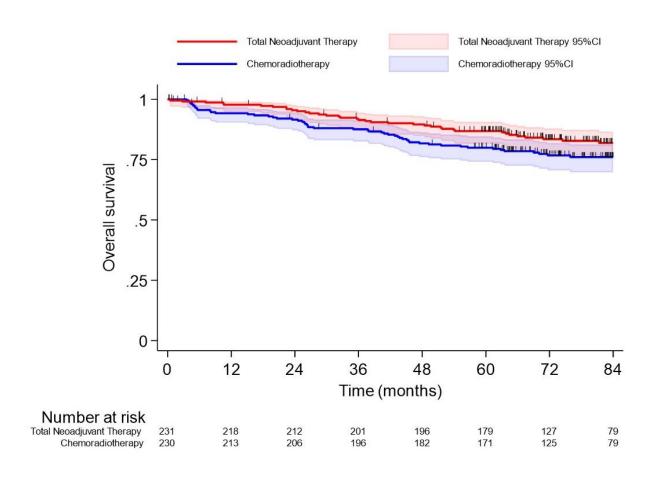
5-yr DFS rate:

- 73.1% [95%CI: 66.8-78.4] TNT arm
- 65.5% [95%CI: 58.9-71.3] SoC arm

RMST (7-yr), months:

5.73 [0.05-11.41] DFS benefit for TNT arm p=0.048

PRODIGE 23: Phase III Rectal CA - OS



98 events.

7-yr OS:

- 81.9% [95%CI: 75.8-86.7] TNT arm
- 76.1% [95%CI: 69.8-81.3] SoC arm

5-yr OS:

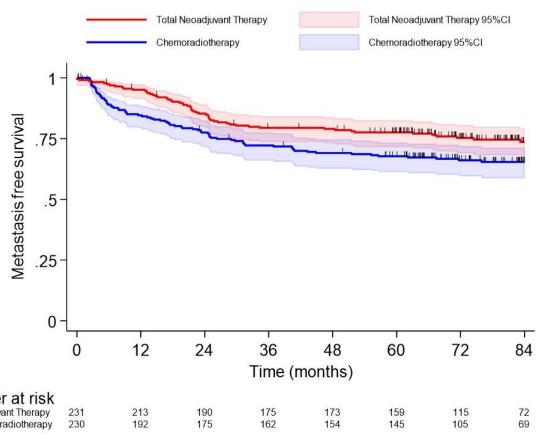
- 86.9% [95%CI: 81.6-90.7] TNT arm
- 80.0% [95%CI: 74.1-84.6] SoC arm

RMST (7-yr), months:

4.37 [0.35-8.38] benefit for TNT arm p=0.033

PRODIGE 23: Phase III Rectal CA - MFS

At 5 years, the cumulative incidence of developing metastatic recurrences was 18.4% in the TNT arm vs 26.6% in the SoC arm.



138 events

7-yr MFS:

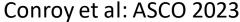
- 73.6% [95%CI: 67.0-79.2] TNT arm
- 65.4% [95%CI: 58.7-71.3] SoC arm

5-yr MFS:

- 77.6% [95%CI: 71.5-82.5] TNT arm
- 67.7% [95%CI: 61.2-73.4] SoC arm

RMST (7-yr), months:

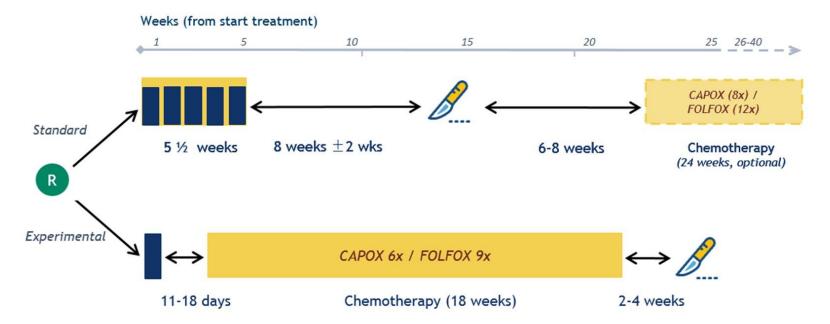
7.1 [1.65-12.63] MFS benefit for TNT arm p=0.011



RAPIDO: Short Course XRT

Study design





Standard: week 1-6: 28x1.8 Gy or 25x2 Gy at working days combined with capecitabine b.i.d. 825 mg/m² (twice daily) day 1-33-38.

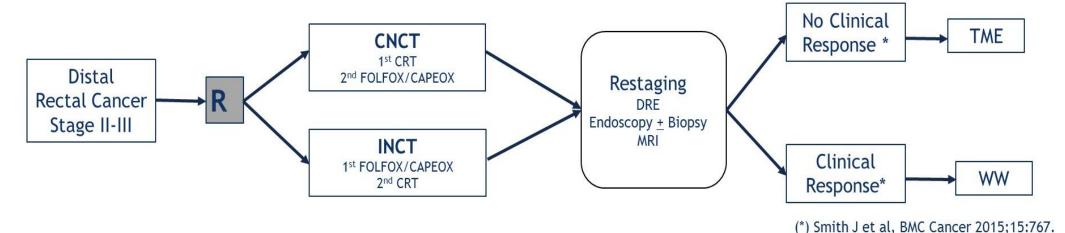
Experimental: week 1: 5x5 Gy, week 3-20: 6x CAPOX (capecitabine b.i.d.1000 mg/m² (twice daily) day 1-14 every 3 weeks orally, oxaliplatin 130 mg/m² day 1 every 3 weeks iv or alternatively 9x FOLFOX4 (folinic acid, fluorouracil and oxaliplatin all iv every 2 weeks)

RAPIDO Update

	RAPIDO	Standard of Care	P-value
Local regional failure (LRF)	12%	8%	0.07
Local regional recurrence (LRR)	10%	6%	0.027
Disease-related treatment failure (DrTF)	28%	34%	0.048
Distant Mets	23%	30%	0.011
Overall survival (OS)	82%	80%	0.50

Organ Preservation in Rectal Cancer Trial (OPRA)

Investigational Arm



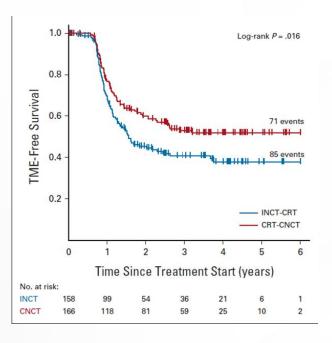
Control Arm (Historical Controls)

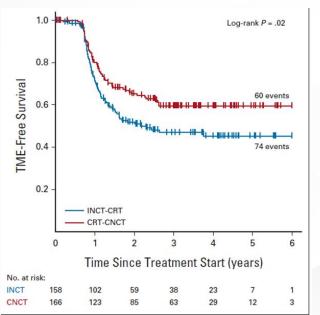


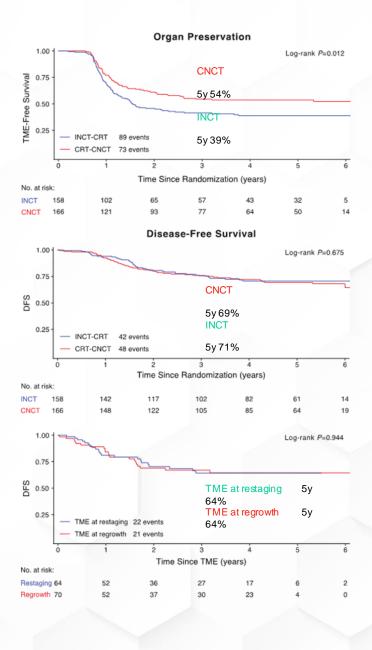
OPRA: 3-yr and 5-yr TME-Free Survival

-Median follow-up 5.1 yrs.

- -304 patients were restaged.
- -36% developed a regrowth: 44% of INCT-CRT patients 35/120 (29%) of CRT-CNCT patients.
- 94% of regrowths occurred within 2 years
- -99% occurred within 3 years after restaging.









PROSPECT Study Summary

Recruitment 2012-2018 from 264 practice sites in the USA,
Canada and Switzerland

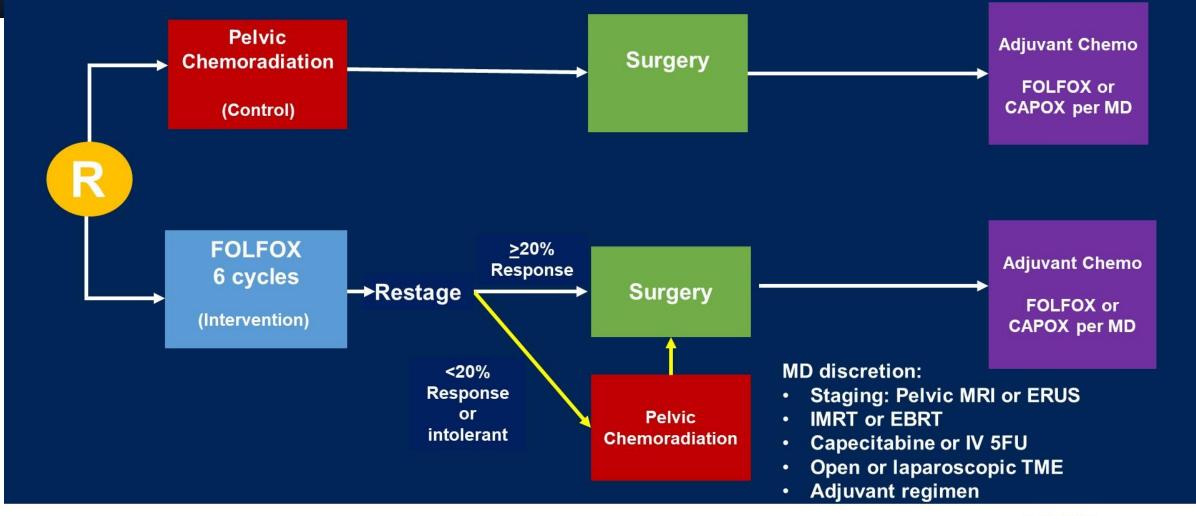
Neoadjuvant Treatment for cT2N+, cT3N-, cT3N+ Rectal Cancer R 1:1 Pelvic
Chemoradiation
5040cGy in 5.5
weeks

FOLFOX 6 cycles
Chemoradiation
if poor response or
FOLFOX not tolerated





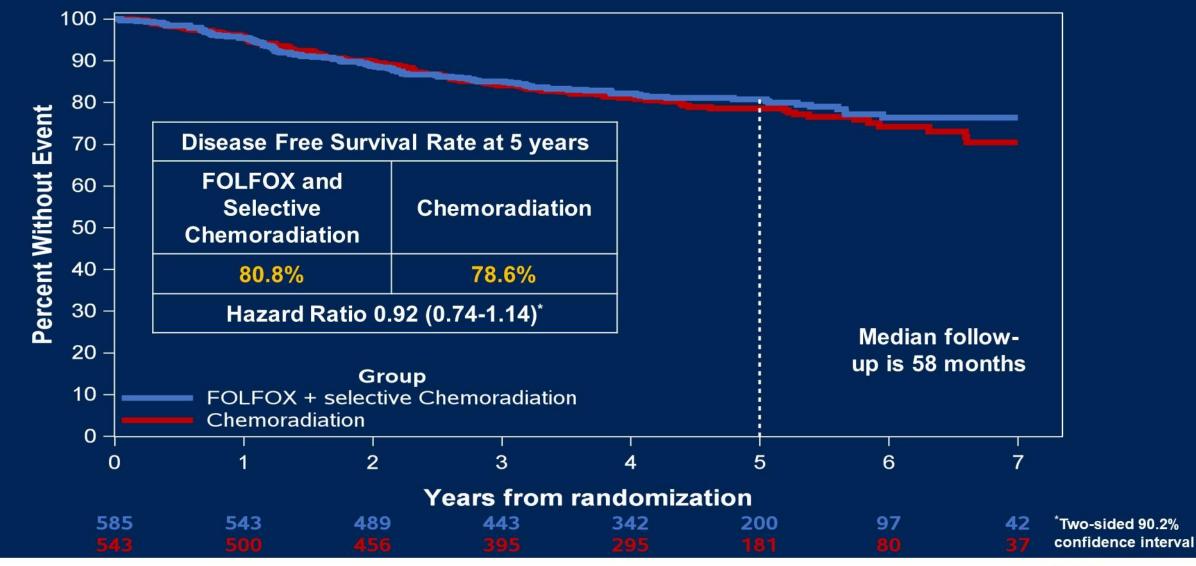
PROSPECT Study Full Schema







PROSPECT: Disease Free Survival





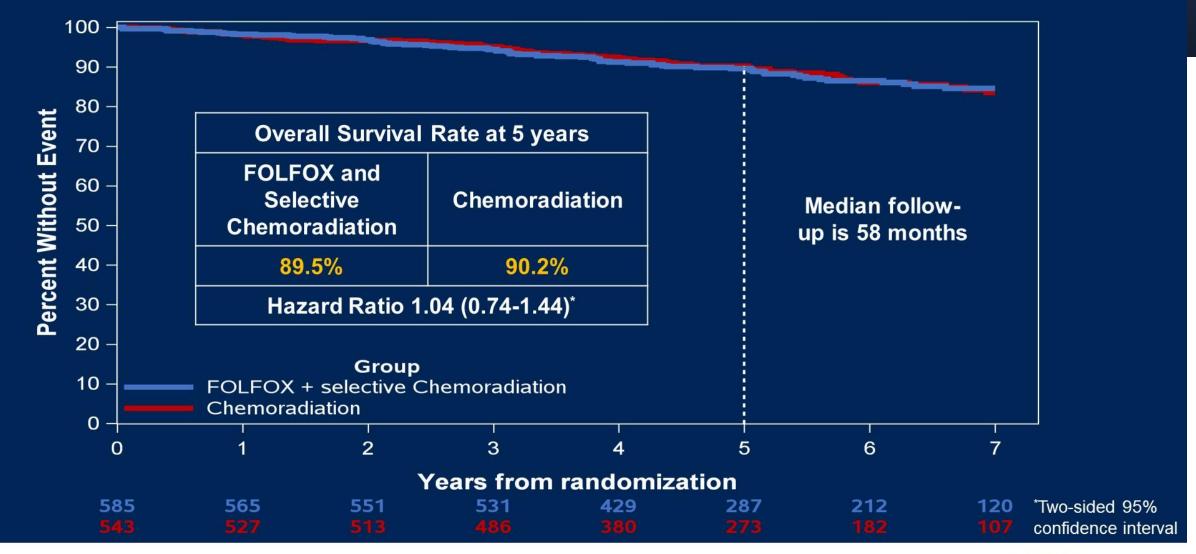


PRESENTED BY: Deb Schrag MD MPH FASCO

Schrag et al: NEJM, 2023

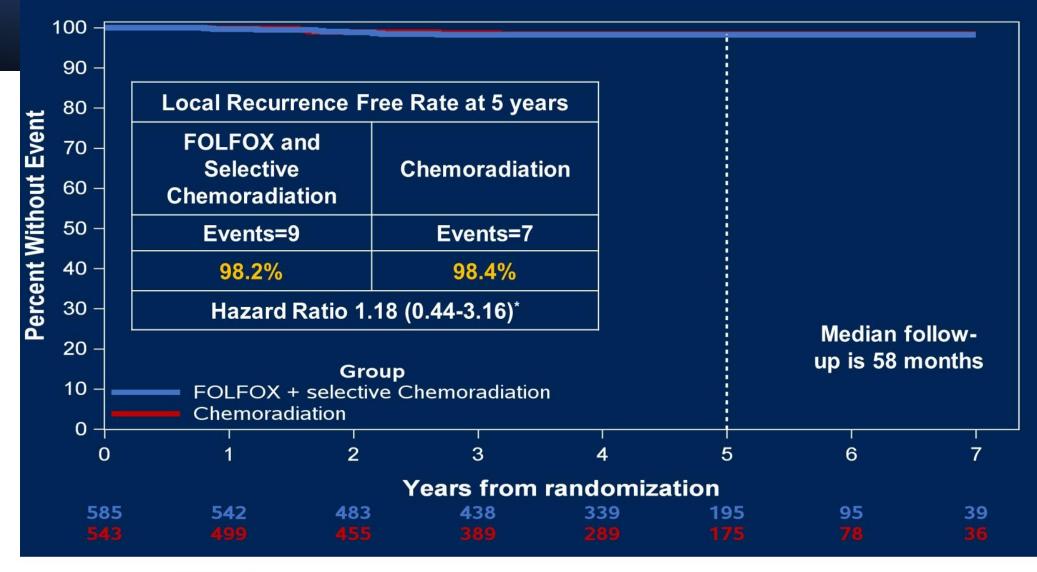


PROSPECT: Overall Survival









*Two-sided 95% confidence interval





Watch and Wait Pioneer

Dr. Angelita Habr-Gama, MD, PhD Professor Sao Paulo, Brazil



The Janus Rectal Cancer Study: A Randomized Phase II Trial

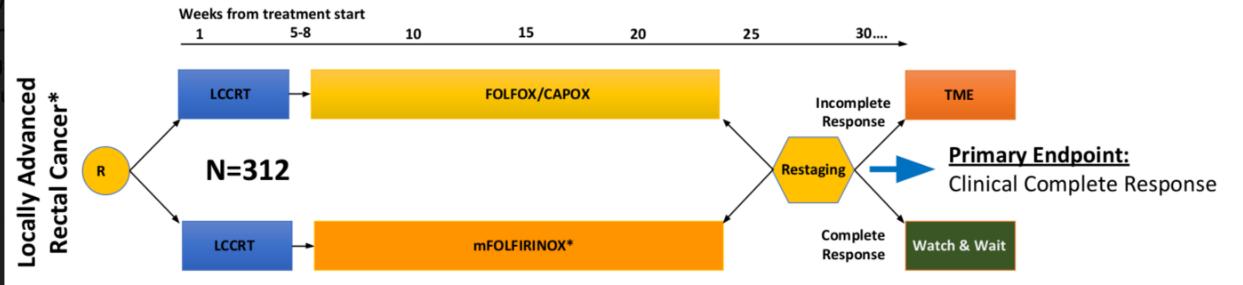
A022104 2 An Alliance, NRG & SWOG Study

Opened: 9 Nov 2022!









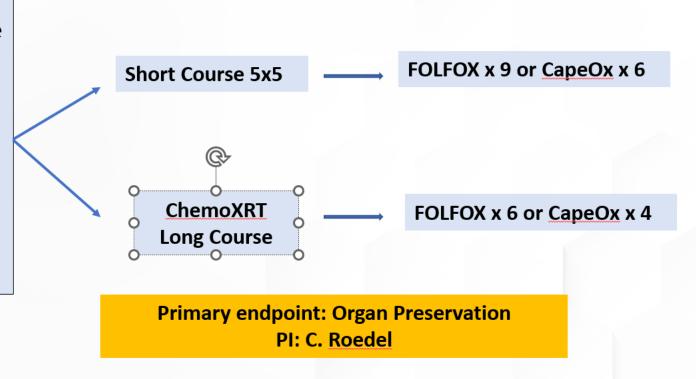
Pl's: J. Smith, A. Dasari, W. Hall

Schema Legend: Randomization = R; LCCRT = long-course chemoradiation; Restaging determination = endoscopy, MRI and clinical exam 8-12 weeks post-completion of assigned TNT regimen * <=12cm, cT4N0, anyT, N+; T3N0 that would require APR or coloanal anastomosis

Short vs. Long-Course RT w/Organ Preservation for High-Risk Rectal Cancer Patients (ACO/ARO/AIO-18.1)

- •Any cT3 < 6 cm
- •cT3c/d in the middle third of the rectum (≥ 6-12 cm) with EMVI > 5 mm (>cT3b)
- •cT3 with clear cN+
- •cT4 tumors
- •N+
- •mrCRM+ (< 1mm)
- •Extramural venous invasion (EMVI+)

N=712



Rectal Cancer Trials: Summary

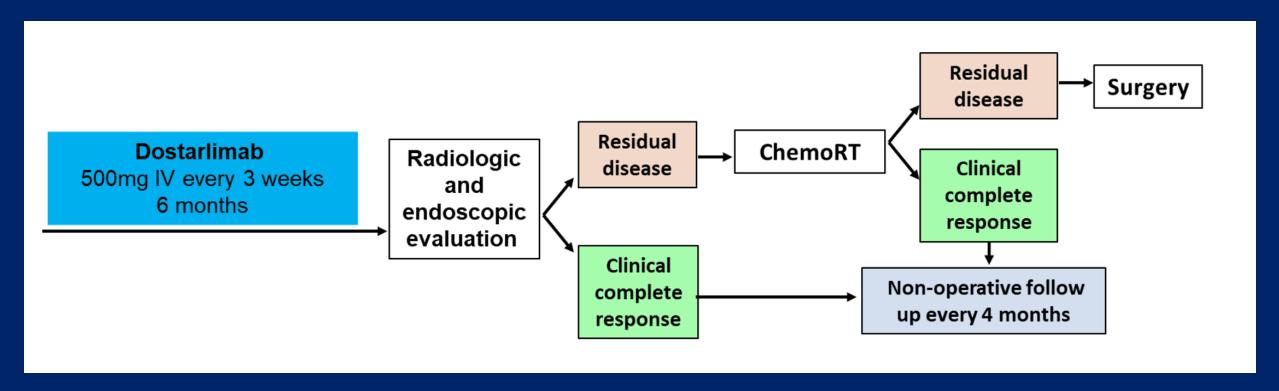
Name of Trial	Phase	AJCC Stage	Location of tumor	DFS	OS	Mets	Other	Findings
OPRA	II	T3/T4N0; TxN+	Low-Lying	Equivocal	Equivocal	N/A	Sequence; W+W	ChemoXRT first improves W+W
RAPIDO	III	T4a/b; N2	-	P= 0.048	P=0.50	P=0.011	5X5	Long-term: High-risk local recurrence
PRODIGE23	III	T3/T4N0; TxN+	-	-	P=0.033	P=0.011	FOLFOXIRI and not full TNT	Improved DFS and MFS
PROSPECT	III	T3N0 or TxN+	Mid to high	Equivocal	Equivocal	-	Non-inferior	Omission of XRT
JANUS NCT05610163	II/III(?)	T3/T4N0; TxN+	-	Pending Pending	Pending	Pending	FOLFOXIRI	cCR
ACO/ARO/ AIO-18.1 NCT04495088	Ш	T3/T4N0; TxN+ EMVI	Low-mid W	Pending /+W = Active surve	Pending eillance	Pending Pending	Pending	W+W

Garcia-Aguilar et al: JCO, 2022; Bahadoer et al: Lanc Onc, 2021; Conroy et al: ASCO 2023; Schrag et al: NEJM, 2023



Rectal Cancer: MSI-H

PD-1 Blockade in Locally Advanced MSI-H Rectal Cancer



Patient population: Stage II and III mismatch repair deficient rectal cancer

Target Enrollment: 30 subjects

Study Design: Simon's two stage minimax design

Cercek et al: NEJM, 2022 NCT04165772

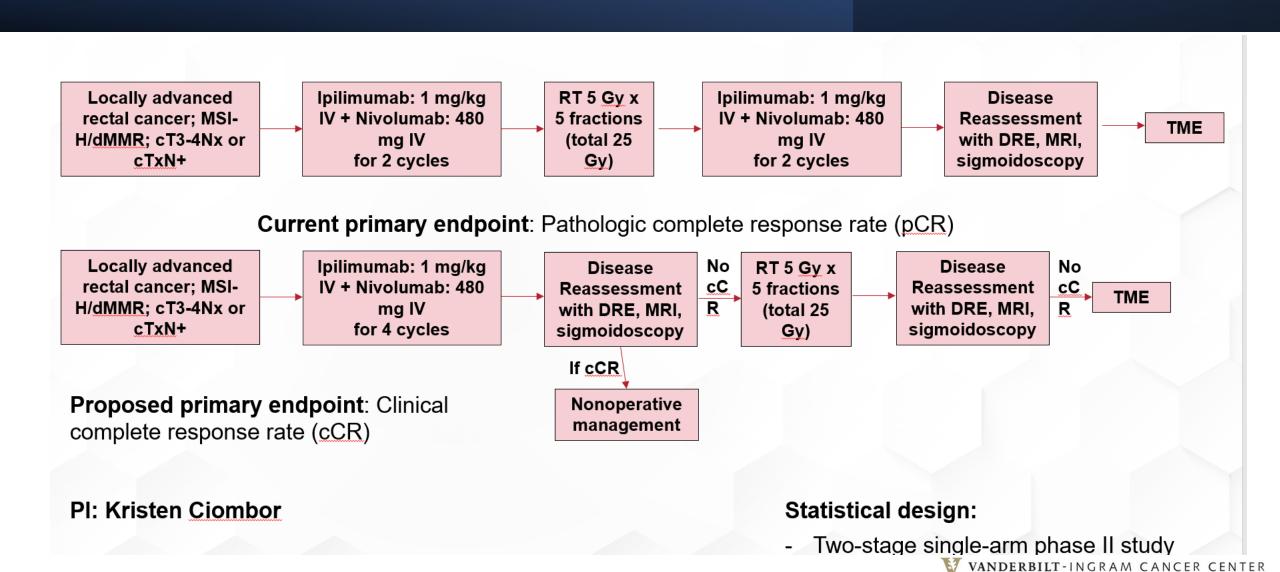
Demographic and disease characteristics of the patients at baseline

	Value (%)	
Sex		
Male	6 (33)	
Female	12 (67)	
Age, median (range)	54 (26-78)	
Race/Ethnicity		
White non-Hispanic	11 (61)	
Hispanic	1 (6)	
Black or African American	3 (17)	
Asian-Far East/Indian Subcontinent	3 (17)	
Tumor Staging		
T1/2	4 (22)	
T3, T4	14 (78)	
Nodal Staging		
Node-positive	17 (94)	
Node-negative	1 (6)	
Germline Mutation Status n=17		
MSH2, MLH1, MSH6, or PMS2	10 (59)	
Negative	7 (41)	
BRAF V600E wild type	18 (100)	\frown
Tumor Mutational Burden (mut/Mb), mean (range)	67 (36 -106)	
Cercek et al: NEJM, 2022		

Individual responses to PD-1 blockade with dostarlimab

ID	Age	Stage T	Stage N	FU (months)	Digital rectal exam response	Endoscopic best response	Rectal MRI best response	Overall response 100%
1	38	T4	N+	23.8	CR	CR	CR	cCR
2	30	T3	N+	20.5	CR	CR	CR	cCR
3	61	T1/2	N+	20.6	CR	CR	CR	cCR
4	28	T4	N+	20.5	CR	CR	CR	cCR
5	53	T1/2	N+	9.1	CR	CR	CR	cCR
6	77	T1/2	N+	11.0	CR	CR	CR	cCR
7	77	T1/2	N+	8.7	CR	CR	CR	cCR
8	55	T3	N+	5.0	CR	CR	CR	cCR
9	68	T3	N+	4.9	CR	CR	CR	cCR
10	78	T3	N-	1.7	CR	CR	CR	cCR
11	55	T3	N+	4.7	CR	CR	CR	cCR
12	27	T3	N+	4.4	CR	CR	CR	cCR
13	26	T3	N+	0.8	CR	CR	CR	cCR
14	43	T3	N+	0.7	CR	CR	CR	cCR

EA2201: Current and Proposed Schema



Left sided all RAS WT mCRC

PARADIGM: 1st Prospective Phase III Trial (Lt-Sided All *RAS* WT mCRC- Amendment)

Patients with RAS WT metastatic CRC Unresectable disease No previous chemotherapy Age: 20-79 years ECOG performance status 0–1 N=823 Bevacizumab + mFOLFOX6

Primary endpoint

OS: left-sided population; overall population if significant

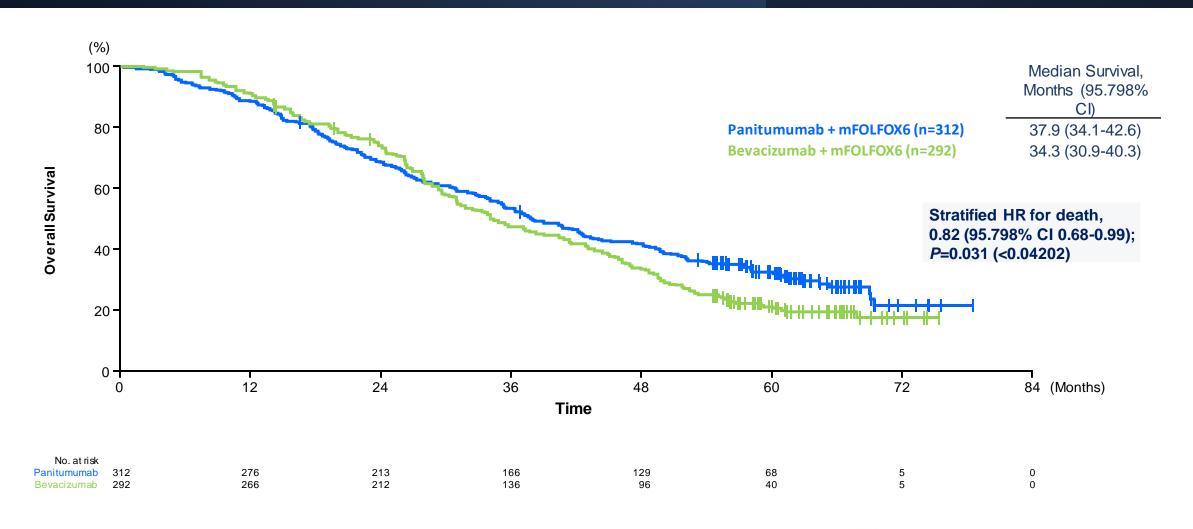
Secondary endpoints

- PFS, RR, DOR, R0 resection: left-sided and overall populations
- · Safety: all treated patients

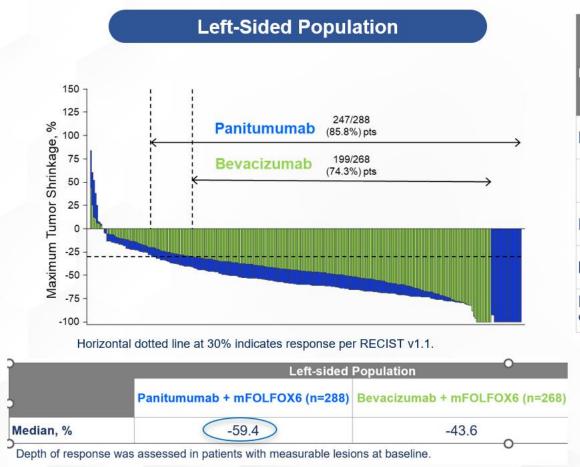
Exploratory endpoints

 ETS, depth of response, DCR: left-sided and overall populations

PARADIGM Primary Endpoint: OS in Left-Sided Population



PARADIGM: 1st Prospective Phase III Trial: RR and Depth of Response



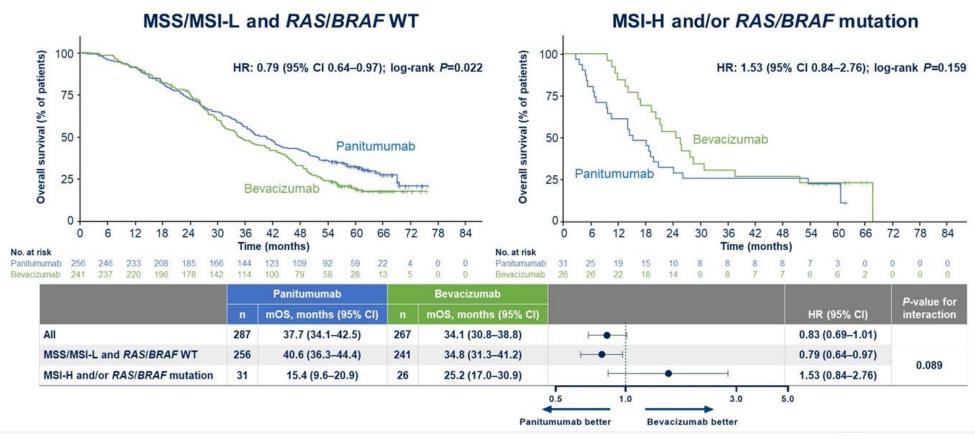
	Left-sided Population			
Parameter	Panitumumab + mFOLFOX6 (n=308)	Bevacizumab + mFOLFOX6 (n=287)		
Response rate, % (95% CI)	(75.3–84.5)	68.6 (62.9–74.0)		
Difference, % (95% CI)	11.2 (4.4–17.9)			
DCR, % (95% CI)	97.4 (94.9–98.9)	96.5 (93.7–98.3)		
Median DOR,ª months (95% CI)	13.1 (11.1–14.8)	11.2 (9.6–13.1)		
R0 rate, ^b % (95% CI)	18.3 (14.1–23.0)	11.6 (8.2–15.9]		

Panitumumab + mFOLFOX6 (n=312)	Patients With Events	Months (95% CI)
Bevacizumab + mFOLFOX6 (n=292)	245 (78.5)	13.7 (12.7-15.3)
	252 (86.3)	13.2 (11.4-14.5)
	Stratified HR, 0.9	98 (95% CI, 0.82-

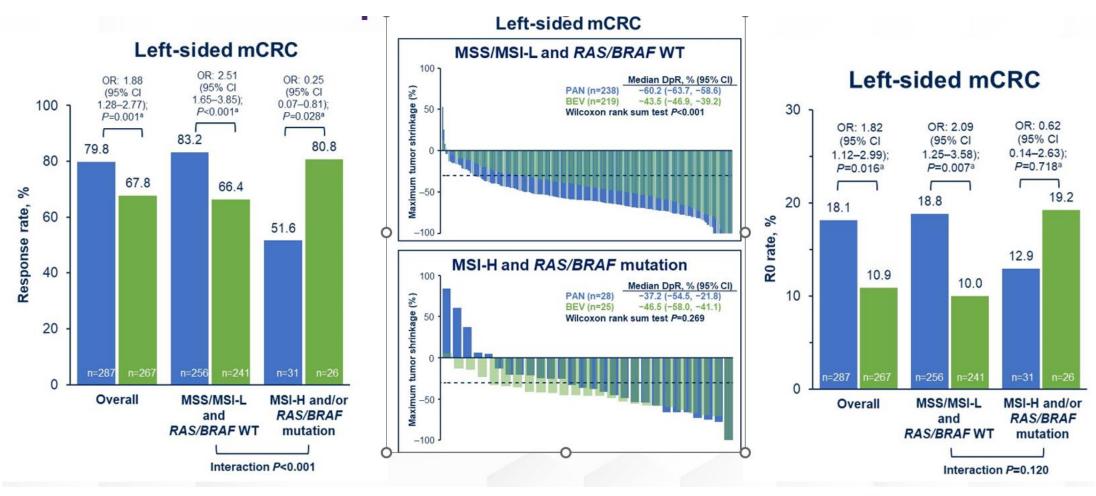
RR = relapsed/refractory.

PARADIGM Updated Molecular Analysis

Overall survival by MSS/MSI and RAS/BRAF status in left-sided mCRC



PARADIGM Updated Molecular Analysis



All comers mCRC

LEAP-017 Study Design

Key Eligibility Criteria

- Unresectable and metastatic CRC that progressed on OR after OR could not tolerate standard treatment
- Not MSI-H/dMMR by local testing
 - ECOG 0-1

Stratification factor

• Presence or absence of liver metastases

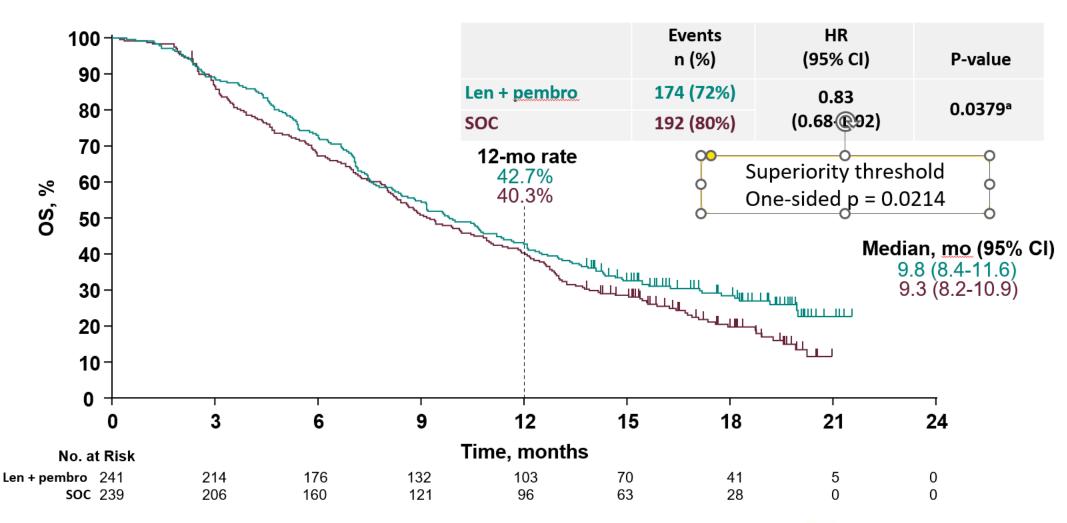
Pembrolizumab 400 mg IV Q6Wa + Lenvatinib 20 mg PO QDa 1:1 N = 434

Standard of Care (Investigator Choice)
Regorafenib 160 mg QD^b Q4W
or

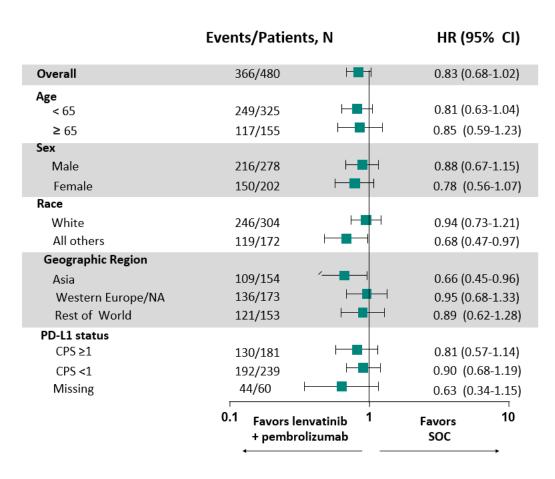
Trifluridine/tipiracil 35 mg/m² Q4W^c

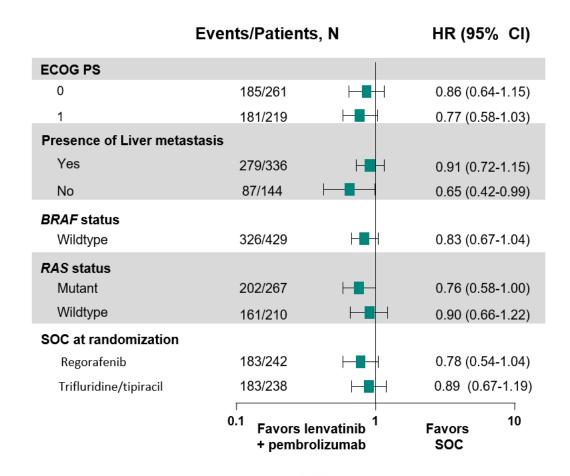
Primary endpoint: OS
Key secondary endpoints: PFS, ORR per RECIST, v1.1 by BICR

LEAP-017 Study Design



LEAP-017: Forest Plots for OS





Stellar 303:



- Known RAS status
- •Progressed, refractory, or intolerant to all of the following SOC regimens for mCRC:
 - Fluoropyrimidine, irinotecan, and oxaliplatin, ± anti-VEGF mAb
 - Anti-EGFR mAb for RAS WT
 - BRAF inhibitor for known BRAF V600E mutations
- •Progression ≤4 months following the last dose of SOC regimen
- •No prior treatment with zanzalintinib (XL092), regorafenib, trifluridine/tipiracil, or PD-L1/PD-1-targeting ICIs

SUNLIGHT study design

An open-label, randomized, phase 3 study in patients with refractory mCRC (NCT04737187)

FTD/TPI p.o. 35 mg/m² BID **Patients** days 1-5 and 8-12; every 28 days Histologically confirmed mCRC Bevacizumab 5 mg/kg IV Two prior treatment regimens^a Follow-up every 8 weeks for days 1 and 15; every 28 days · Disease progression or radiologic progression and/or intolerance survival status Known RAS status FTD/TPI p.o. 35 mg/m² BID ECOG PS 0-1 days 1-5 and 8-12; every 28 days Stratification factors: Primary endpoint: OS in full analysis set Statistical considerations: Secondary endpoints: Geographic region (North America, PFS Sample size: 490 (245 per arm) European Union, or rest of the world) DCR Expected OS HR: 0.70 (30% reduction in · Time since diagnosis of first ORR risk of death) with 90% power metastasis (<18 or ≥18 months) Safety profile · Required OS events: 331 RAS status (wild-type or mutant) QoL (time to deterioration)

ASCO Gastrointestinal Cancers Symposium

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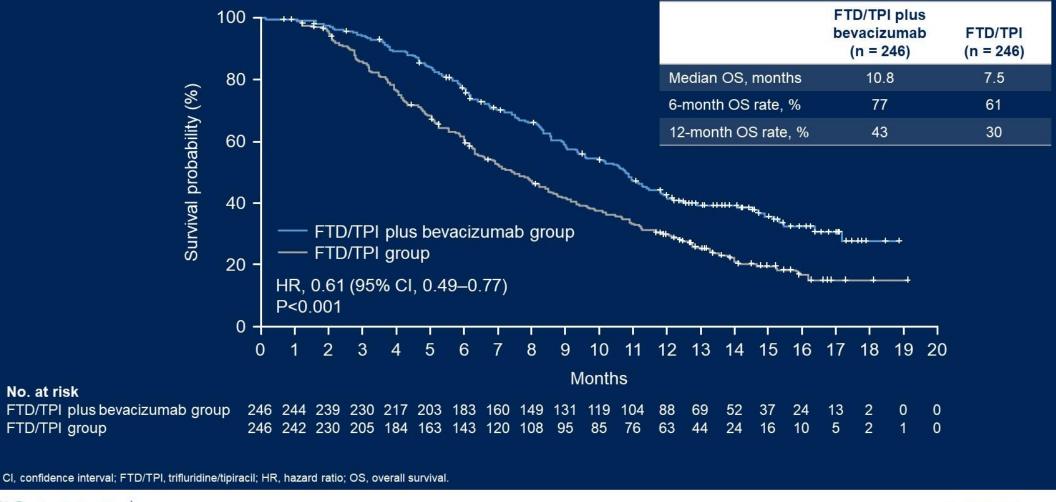




· No planned interim analysis

a Prior treatment must have included a fluoropyrimidine, irinotecan, oxaliplatin, an anti-VEGF monoclonal antibody (not necessarily bevacizumab), and/or an anti-EGFR monoclonal antibody for patients with RAS wild-type and could have included (neo)adjuvant chemotherapy if disease had recurred during treatment or within 6 months of the last administration of (neo)adjuvant therapy. BID, twice daily; DCR, disease control rate; ECOG PS, Eastern Cooperative Oncology Group performance status; EFGR, epidermal growth factor receptor; FTD/TPI, trifluridine/tipiracil; HR, hazard ratio; IV, intravenous; mCRC, metastatic colorectal cancer; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; p.o., orally; QoL, quality of life; R, randomization; VEGF, vascular endothelial growth factor.

OS in full analysis set (primary endpoint)



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FRESCO-2 Study Design

Patient Eligibility

- Prior treatment with fluoropyrimidine-, oxaliplatinand irinotecan-based chemotherapy, an anti-VEGF biological therapy, and, if *RAS* wild type, an anti-EGFR therapy
- Progression on, or intolerance to, TAS-102 and/or regorafenib
- Prior treatment with an immune checkpoint inhibitor or BRAF inhibitor if indicated

Fruquintinib 5 mg PO, QD (3 weeks on, 1 week off) + BSC (N=458) Treatment until progression or unacceptable toxicity (3 weeks on, 1 week off) + BSC (N=229)

Stratification Factors

- Prior therapy (TAS-102 vs regorafenib vs TAS-102 and regorafenib)
- RAS mutational status (wild-type vs mutant)
- Duration of metastatic disease (≤18 months vs >18 months)

Mechanism of action: Highly selective oral tyrosine kinase inhibitor of VEGFRs-1, -2, and -3

Note: To ensure the patient population is reflective of clinical practice, the number of patients treated with prior regorafenib was limited to 344 patients (50%)

BSC, best supportive care. NCT04322539.



ITT Population

Patient and Disease Characteristics

Enrollment: Sep 2020 to Dec 2021

Data Cutoff: 24 June 2022

Placebo

(N=230)

13 (5.7)

217 (94.3)

85 (37.0)

145 (63.0)

198 (86.1)

10 (4.3)

22 (9.6)

4 (3-6) 64 (28%) 166 (72%)

221 (96%) 88 (38%) 11 (5%) 7 (3%)

121 (53%) 18 (8%)

91 (40%)

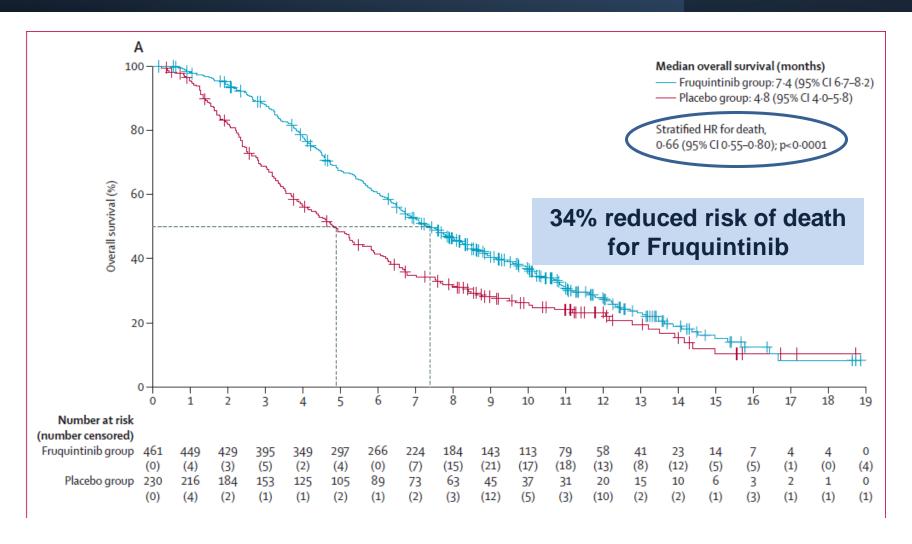
Characteri	stic, n (%)	Fruquintinib (N=461)	Placebo (N=230)	Characteristic, n (%)		Fruquintinil (N=461)	0
Age, y	Median (range) ≥ 65	64 (25, 82) 214 (46.4)	64 (30, 86) 111 (48.3)	Duration of metastatic disease	≤ 18 mo > 18 mo	37 (8.0) 424 (92.0)	
Sex	Female Male	216 (46.9) 245 (53.1)	90 (39.1) 140 (60.9)	RAS status	WT Mutant	170 (36.9) 291 (63.1)	
Region	North America Europe Asia Pacific	82 (17.8) 329 (71.4) 50 (10.8)	42 (18.3) 166 (72.2) 22 (9.6)	BRAF V600E mutation	No Yes Other/Unknown	401 (87.0) 7 (1.5) 5 (11.5)	
	0	196 (42.5) 265 (57.5)	102 (44.3) 128 (55.7)	Number of previous treatment lines in metastatic disease			
ECOG PS				Median		4 (3–6)	4 (
		, ,	≤3 >3		5 (27%) 6 (73%)	64 (166 (
	Colon left Colon right Colon left and right Colon unknown Rectum only	192 (41.6) 97 (21.0) 4 (0.9) 25 (5.4) 143 (31.0)	92 (40.0) 53 (23.0) 2 (0.9) 13 (5.7) 70 (30.4)	Previous therapies	33	0 (/3%)	100
Primary site at 1st				VEGF inhibitor	44	5 (97%)	221 (
diagnosis				EGFR inhibitor	18	0 (39%)	88 (
						1 (5%)	11 (
				BRAF inhibitor		9 (2%)	7 (
Liver metastases	Yes	339 (73.5)	156 (67.8)	Previous trifluridine-tipiracil or rego Trifluridine-tipiracil		enib .0 (52%)	121 (
Liver illetastases	103	000 (10.0)	100 (07.0)	Regorafenib		0 (9%)	18 (

Both



181 (39%)

FRESCO-2: Primary Endpoint - OS



Dasari...Eng et al: The Lancet, 2023

ITT Population

OS Subgroup Analysis

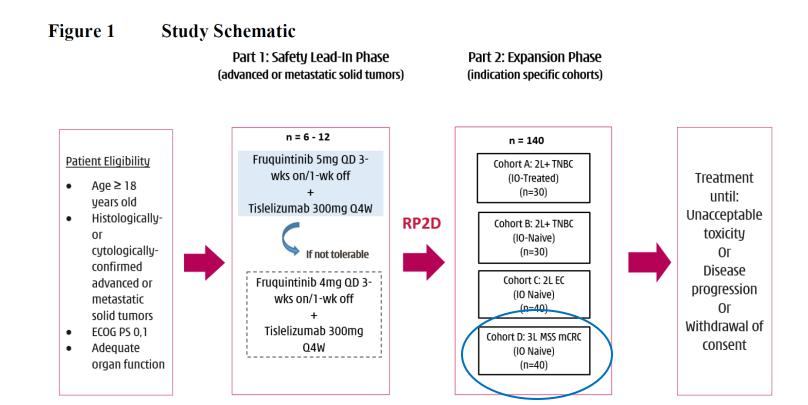
Subgroup		Fruquintinib n/N	Placebo n/N		HR (95% CI)
ITT population		317/461	173/230	⊢● →	0.662 (0.549, 0.800
Ago	< 65	171/247	89/119	⊢● ──	0.694 (0.534, 0.903
Age	≥ 65	146/214	84/111	⊢ ●	0.648 (0.494, 0.851
Sex	Female	149/216	61/90	⊢●	0.828 (0.609, 1.125
Sex	Male	168/245	112/140	⊢● →	0.584 (0.456, 0.749
ECOG PS	0	121/196	67/102	⊢	0.775 (0.573, 1.050
ECOG PS	1	196/265	106/128	⊢● ──	0.571 (0.499, 0.728
	Caucasian	260/367	145/192	⊢● →	0.696 (0.567, 0.854
Dana	Asian	24/43	14/18	⊢	0.377 (0.171, 0.833
Race	African American	7/13	5/7	├	0.550 (0.135, 2.231
	Other	26/38	9/13	⊢	1.199 (0.478, 3.008
	North America	50/82	29/42	⊢	0.620 (0.387, 0.995
Region	Europe	237/329	130/166	⊢● →	0.688 (0.554, 0.855
_	Asia Pacific	30/50	14/22	⊢	0.631 (0.321, 1.241
Duration of metastatic	≤ 18 mo	30/37	8/13	├	0.605 (0.260, 1.406
disease	> 18 mo	287/424	165/217	⊢● →	0.642 (0.529, 0.779
	Colon	195/279	109/137	⊢● →	0.672 (0.528, 0.855
Primary tumor site at	Rectum	99/143	49/70	⊢	0.633 (0.446, 0.900
1st diagnosis	Colon and Rectun	n 23/39	15/23	├	0.686 (0.339, 1.388
DAS atatus	WT	119/170	62/85	⊢ •	0.667 (0.489, 0.909
RAS status	Mutant	198/291	111/145	⊢● →	0.683 (0.539, 0.865
# of prior treatment lines	≤ 3	80/125	45/64	⊢ • ¦ i	0.714 (0.488, 1.043
in metastatic disease	>3	237/336	128/166	⊢● → ¦	0.645 (0.519, 0.802
Prior VEGFi	Yes	306/445	167/221	⊢● →	0.683 (0.565, 0.827
Prior VEGFI	No	11/16	6/9		0.193 (0.024, 1.557
Prior EGFRi	Yes	127/180	64/88	⊢ •	0.689 (0.507, 0.936
Prior EGFRI	No	190/281	109/142	⊢● → ¦	0.666 (0.524, 0.846
Dulan TAS 402 and	TAS-102	165/240	88/121	⊢● →¦	0.723 (0.557, 0.938
Prior TAS-102 and Regorafenib	Regorafenib	25/40	12/18	├	0.772 (0.379, 1.573
Regulateriib	Both	127/181	73/91	⊢●	0.600 (0.447, 0.805
Liver metastases	Yes	255/339	132/156	⊢●	0.576 (0.465, 0.713
LIVET HIELASLASES	No	62/122	41/74	⊢	0.771 (0.513, 1.158
				Favors Favors	10
congress				Fruquintinib Placebo	
ECV Tooligi 033				1 ladebo	



Clinical Study Protocol

AN OPEN-LABEL, PHASE 1b/2 STUDY TO EVALUATE THE SAFETY AND EFFICACY OF FRUQUINTINIB IN COMBINATION WITH TISLELIZUMAB IN PATIENTS WITH ADVANCED SOLID TUMORS

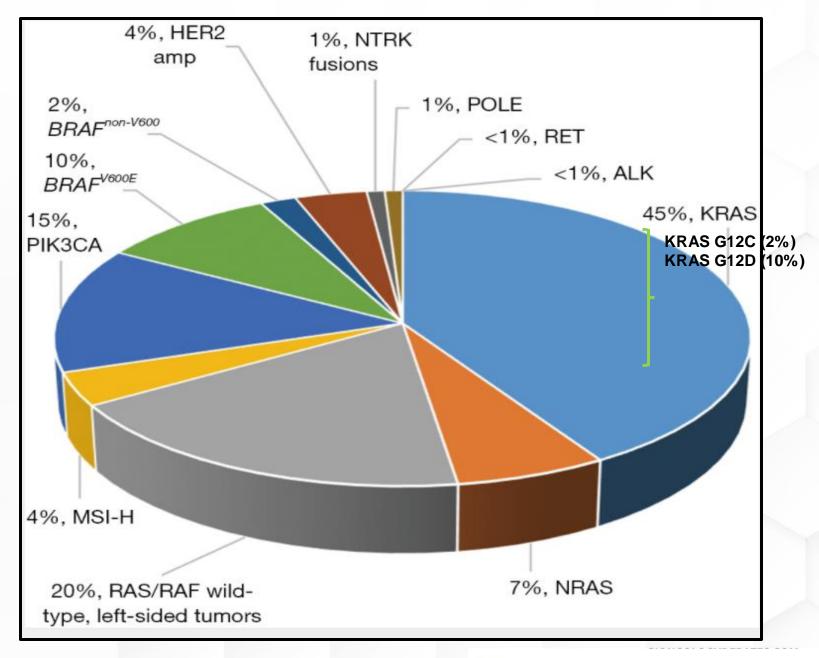
Phase II
Fruquintinib +
Tislelizumab in
MSI-S mCRC



Completed enrollment in < 3 months)

Precision Oncology

Molecular Subsets: Precision Oncology



Study Design: BREAKWATER

BREAKWATER (NCT04607421) is an ongoing, open-label, global, multicenter, randomized phase 3 study evaluating 1L EC ± chemotherapy vs SOC chemotherapy alone in participants with BRAF V600E-mutant mCRC

Safety Lead-In

Participants who have received ≤1 prior treatment for mCRC

Cohort 1 (n=30)

Encorafenib 300 mg QD + cetuximab 500 mg/m² Q2W + FOLFIRI Q2W in 28-day cycles

Cohort 2 (n=27)

Encorafenib 300 mg QD + cetuximab 500 mg/m² Q2W + mFOLFOX6 Q2W in 28-day cycles

Primary Endpoint

Safety (frequency of DLTs)

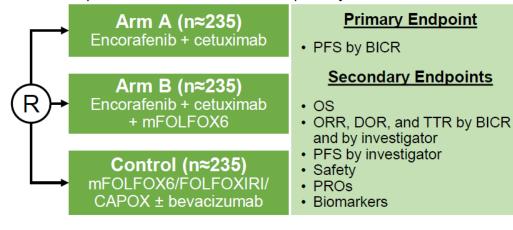
Secondary Endpoints

- Safety (AEs, dose interruptions/ modifications/discontinuations)
- PKs
- Antitumor activity by investigator (ORR, DOR, TTR, PFS, OS)

BRAF V600E-mutant mCRC (blood or tumor tissue) ≤1 prior systemic treatment for mCRC Evaluable disease (RECIST 1.1) ECOG PS 0 or 1 Adequate BM, hepatic, and renal function Prior treatment with BRAF or EGFR inhibitors or both oxaliplatin and irinotecan Symptomatic brain metastases MSI-H or dMMR tumors^a

Phase 3

Participants who have not received prior systemic treatment for mCRC



Here we present an updated analysis from the BREAKWATER SLI, including updated safety and antitumor activity data by BICR, as well as preliminary biomarker data

Data cutoff: September 5, 2022.

^aUnless patient ineligible to receive immune checkpoint inhibitors due to pre-existing medical condition.

BICR, blinded independent central review; BM, bone marrow; DLT, dose-limiting toxicity; dMMR, deficient mismatch repair; EC, encorafenib + cetuximab; MSI-H, microsatellite instability-high; PK, pharmacokinetic; Q2W, every 2 weeks; QD, once daily; SLI, safety lead-in; SOC, standard of care.







Overview of Response by BICR

	1L		2L	
	EC + mFOLFOX6	EC + FOLFIRI	EC + mFOLFOX6	EC + FOLFIRI
Confirmed best overall response, n (%)	n=19	n=12	n=8	n=18
ORR, % (95% CI)	68.4 (46.0, 84.6)	75.0 (46.8, 91.1)	37.5 (13.7, 69.4)	44.4 (24.6, 66.3)
CR	1 (5.3)	2 (16.7)	0	1 (5.6) ^a
PR	12 (63.2)	7 (58.3)	3 (37.5)	7 (38.9)
SD	4 (21.1)	2 (16.7)	5 (62.5)	7 (38.9)
PD	1 (5.3)	0	0	0
Non-CR/non-PD ^b	0	1 (8.3)	0	2 (11.1)
Not evaluable ^c	1 (5.3)	0	0	1 (5.6)
Responders	n=13	n=9	n=3	n=8
mTTR, weeks (range)	6.9 (5.9–30.0)	7.0 (6.1–42.7)	6.9 (6.4–23.1)	13.0 (6.1–47.3)
mDOR, months (95% CI)	9.8 (6.9, NE)	12.4 (6.9, NE)	NE (5.6, NE)	9.9 (5.5, NE)
≥6 months, n (%)	7 (53.8)	6 (66.7)	1 (33.3)	4 (50.0)

Data cutoff: September 5, 2022.

^aThis participant with CR only had nontarget lesions at baseline. ^bParticipants with only nontarget lesions at baseline. ^cReasons included SD <6 weeks after treatment start date (1 patient in the EC + mFOLFOX6 cohort in the 1L setting) and early death (1 patient in the EC + FOLFIRI cohort in the 2L setting).

BICR, blinded independent central review; EC, encorafenib and cetuximab; NE, not estimable.





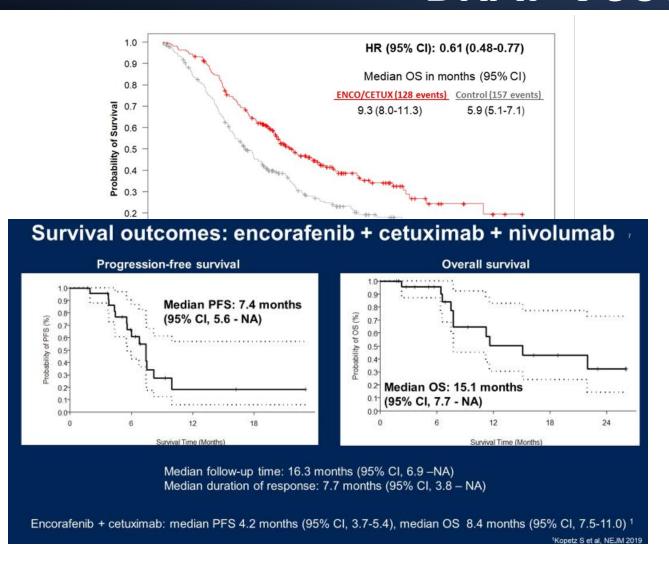
PRESENTED BY: Scott Kopetz, MD, PhD

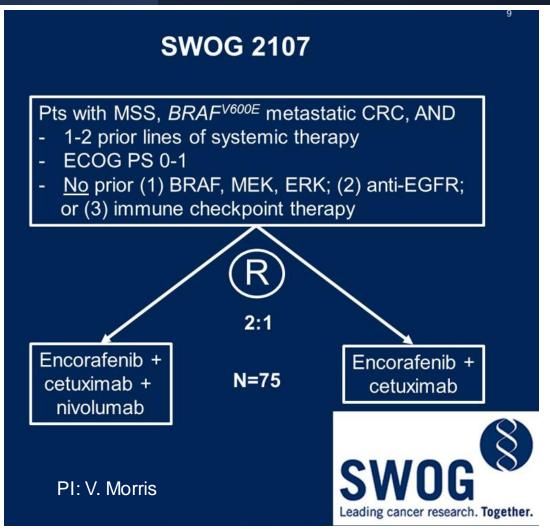




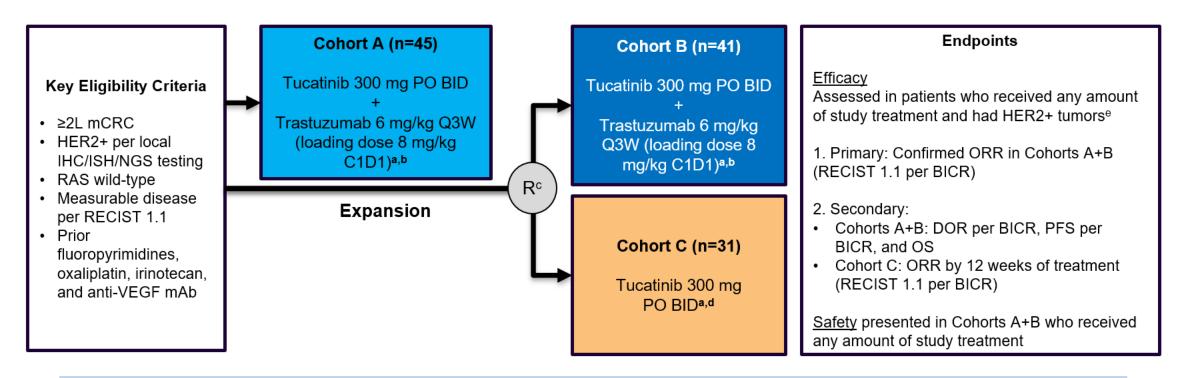


SWOG 2107: Previously Treated BRAF V600E MT



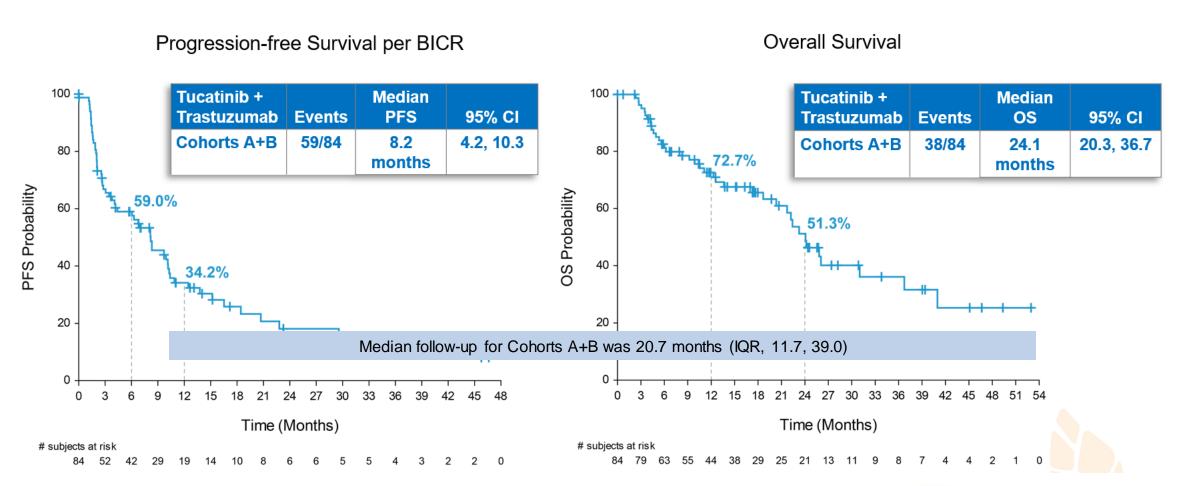


Mountaineer: Global, Open-Label, Phase 2 Trial

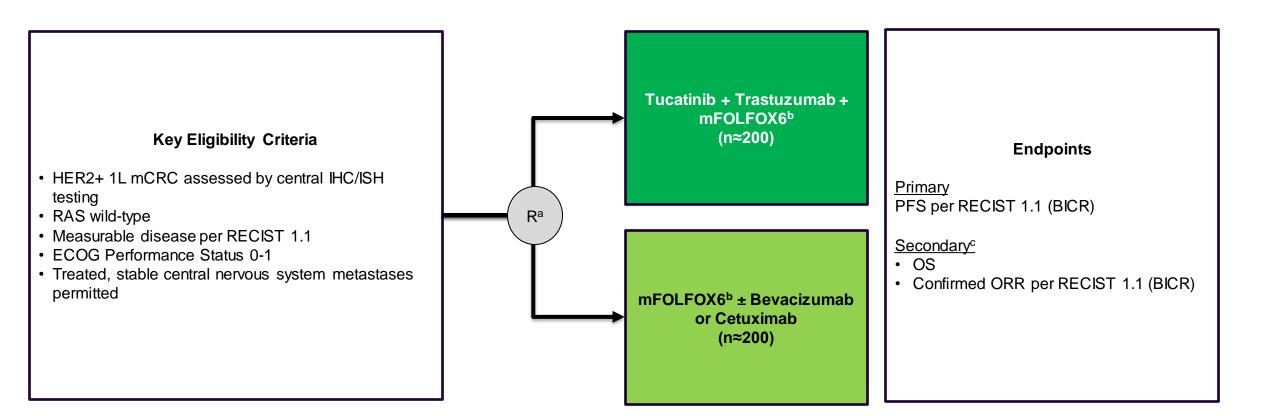


MOUNTAINEER began as a US Investigator-Sponsored Trial and initially consisted of a single cohort (Cohort A) and was expanded globally to include patients randomised to receive tucatinib + trastuzumab (Cohort B) or tucatinib monotherapy (Cohort C)

Mountaineer: Global, Open-Label, Phase 2 Trial

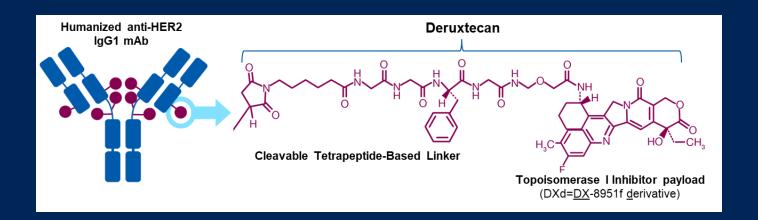


Mountaineer 3: Tx naïve mCRC



Trastuzumab deruxtecan (T-DXd; DS-8201)

- Trastuzumab deruxtecan is an antibody-drug conjugate composed of a humanized monoclonal anti-HER2 antibody, a cleavable tetrapeptide-based linker, and a potent topoisomerase I inhibitor.
- Survival benefits of the drug have been proven in HER2-positive breast and gastric cancers.^{1,2}



1. NEJM 2022;386:1143. 2. NEJM 2020;382:2419.





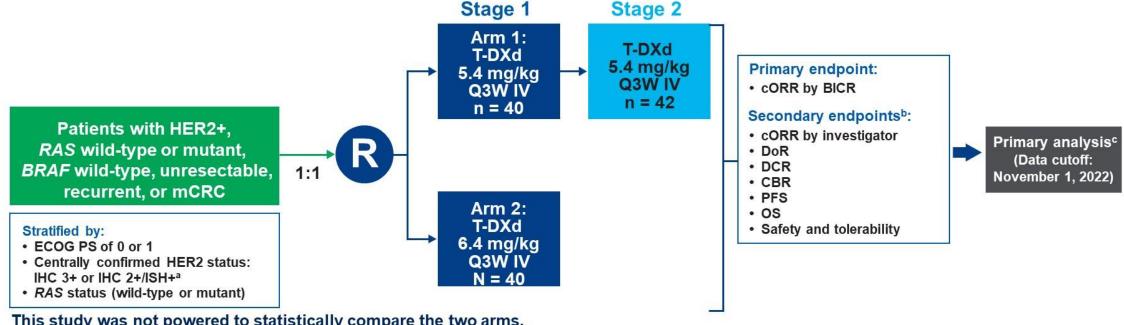




DESTINY-CRC02 Study Design

A randomized, blinded, 2-stage, 2-arm, multicenter, global, phase 2 study (NCT04744831)

Stage 1 (randomized) was followed by Stage 2 (nonrandomized), which enrolled an additional 42 patients



This study was not powered to statistically compare the two arms.

BICR, blinded independent central review; BRAF, v-raf murine sarcoma viral oncogene homolog B1; CBR, clinical benefit rate; cORR, confirmed objective response rate; DCR, disease control rate; DoR, duration of response; ECOG PS, Eastern Cooperative Oncology Group performance status; HER2, human epidermal growth factor receptor 2; IHC, immunohistochemistry; ISH, in situ hybridization; IV, intravenously; mCRC, metastatic colorectal cancer; OS, overall survival; PFS, progression-free survival; Q3W, every 3 weeks; R, randomization; RAS, rat sarcoma; T-DXd, trastuzumab deruxtecan. Both investigators and patients were blind to treatments.

^aHER2 status was assessed with the Roche VENTANA HER2 Dual ISH DNA probe cocktail assay (IUO). ^bExploratory endpoints included best percent change in the sum of diameters of measurable tumors based on BICR and investigator. Primary analysis occurred ≥6 months after the last patient had been enrolled or when all patients discontinued from the study, whichever was earlier.





Kanwal Raghav, MD

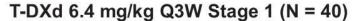
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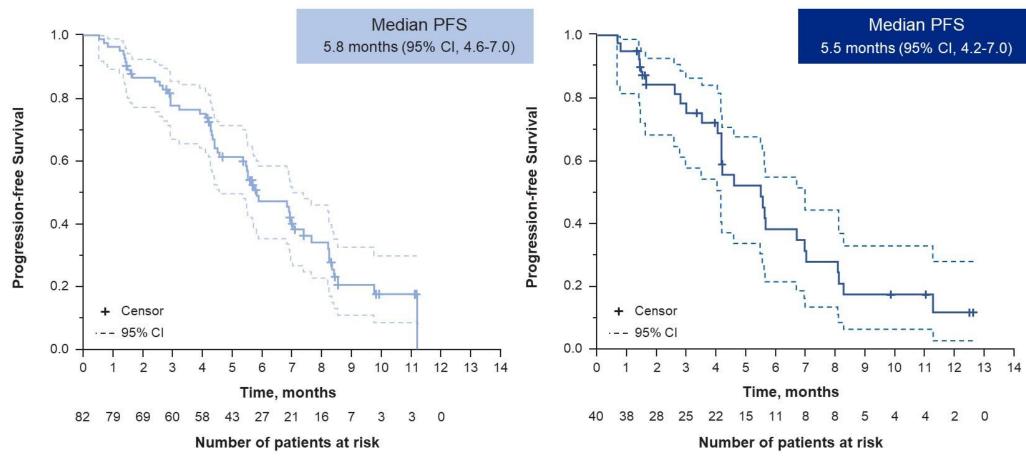




Median Progression-Free Survival by BICR







BICR, blinded independent central review; PFS, progression-free survival; Q3W, every 3 weeks; T-DXd, trastuzumab deruxtecan.





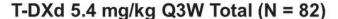
RESENTED BY: Kanwal Raghav, MD

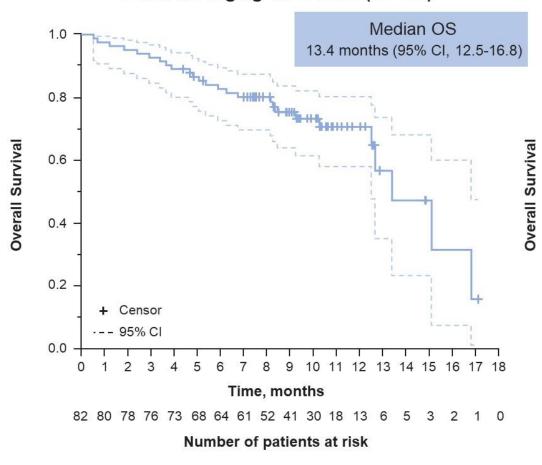
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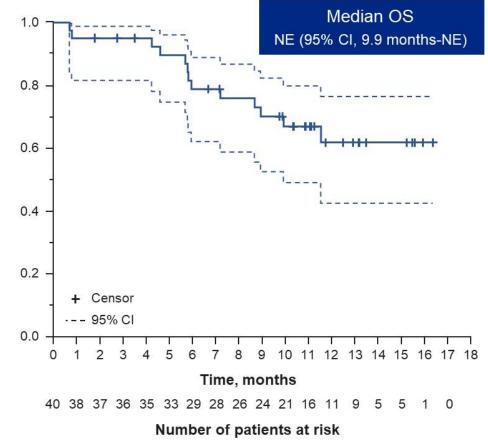


Median Overall Survival





T-DXd 6.4 mg/kg Q3W Stage 1 (N = 40)



NE, not evaluable; Q3W, every 3 weeks; T-DXd, trastuzumab deruxtecan.





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Adjudicated Drug-Related ILD/Pneumonitis by Independent Adjudication Committee

	T-DXd 5.4 mg/kg Q3W			T-DXd 6.4 mg/kg Q3W
Adjudicated as drug-related ILD/pneumonitis, n (%)	Stage 1 n = 41ª	Stage 2 n = 42	Total N = 83	Stage 1 N = 39
Any grade	4 (9.8)	3 (7.1)	7 (8.4)	5 (12.8)
Grade 1	1 (2.4)	0	1 (1.2)	2 (5.1)
Grade 2	3 (7.3)	3 (7.1)	6 (7.2)	2 (5.1)
Grade 3	0	0	0	0
Grade 4	0	0	0	0
Grade 5	0	0	0	1 (2.6) ^b

ILD, interstitial lung disease; Q3W, every 3 weeks; T-DXd, trastuzumab deruxtecan.

all patient randomized to receive T-DXd 6.4 mg/kg was mistakenly given T-DXd 5.4 mg/kg and counted in the 5.4 mg/kg arm safety analysis set. There was 1 adjudicated, drug-related, grade 5 ILD/pneumonitis event, which was reported as respiratory failure, which was considered unrelated to study drug by investigator.





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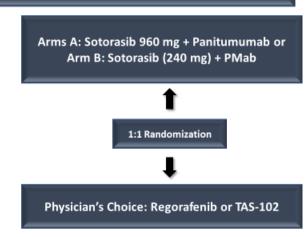


Ongoing KRAS G12C MT Phase I and III Trials

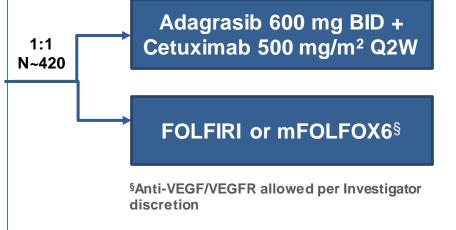
Phase 3: Sotorasib + Panitumumab

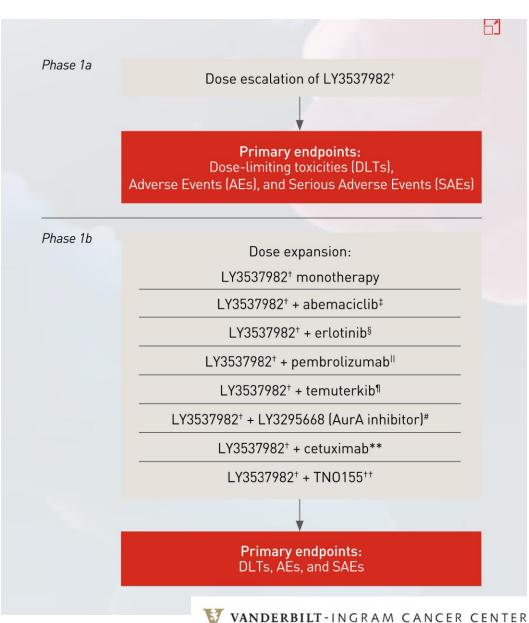
Patients

- > 1 prior line of treatment for mCRC
- KRAS G12C MT
- ECOG PS 0-2
- N=193
- *Not yet recruiting NCT05198934
- Metastatic CRC
- KRASG12C in tumor
 - Local test acceptable for enrollment; central confirmation req'd w/in 30d
- PD on 1L fluoropyrimidine + oxaliplatin or irinotecan
- No prior anti-EGFR or direct KRAS G12Ci



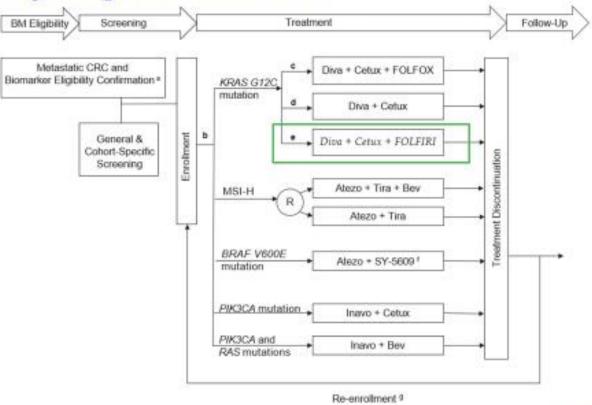
Primary Endpoint: PFS





Intrinsic Trial: Biomarker Driven Trial

Updated Study Design with Protocol v5

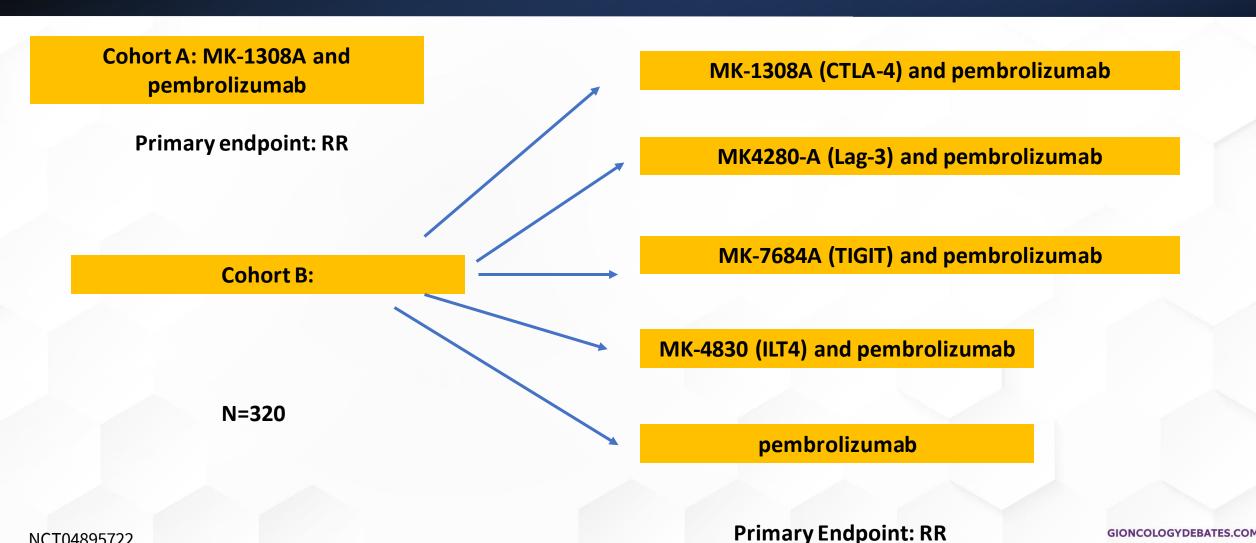


Note: GDC-6036 is also known as "Divarasib" or 'Diva".

INTRINSIC

PI: Roche

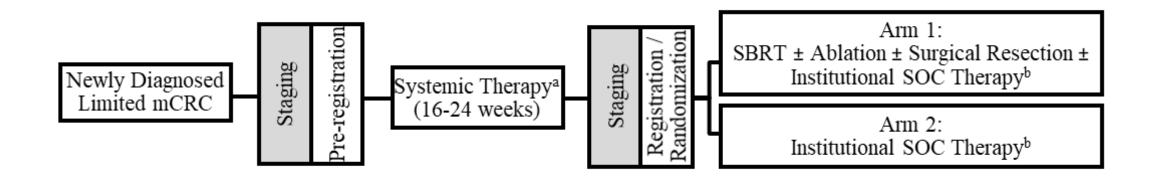
MK-1308A: MSI-H Treatment Naïve MCRC



NCT04895722

GIONCOLOGYDEBATES.COM

Alliance A022101: A pragmatic, randomized phase III trial evaluating total ablative therapy for patients with limited metastatic colorectal cancer: Evaluating Radiation, Ablation, and Surgery (ERASur)



- N=364
- OS is primary endpoint
- There must be at least one other site of metastasis in addition to the liver
- Adjuvant must have been completed 12 months prior



Not for distribution

EA2222 - A Randomized Phase III Study of Systemic Therapy With or Without Hepatic Arterial Infusion for Unresectable Colorectal Liver Metastases: The PUMP Trial

Study Chair: Michael Lidsky, MD

Patient Eligibility

Adults, 18-80 years old

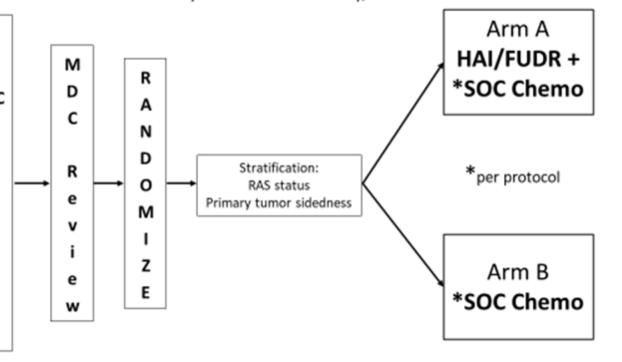
Persistently and technically unresectable liver-only metastatic CRC

(Allowed: Any calcified pulmonary nodule or \leq 5 pulmonary nodules \leq 6 mm and stable for \geq 3 months on chemotherapy)

Prior systemic chemotherapy

 $\geq 6 \leq 12$ cycles (if cycle = 14 days) OR $\geq 4 \leq 8$ cycles (if cycle = 21 days)

New CRLM < 12 months after completing adjuvant therapy for stage II-III CRC



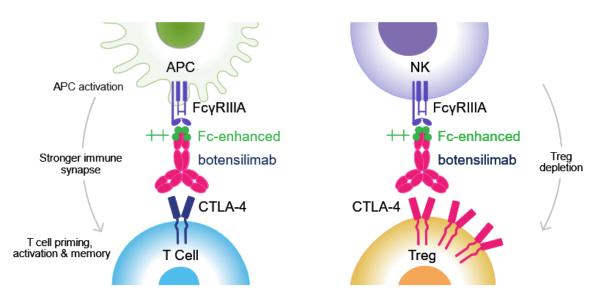
Primary endpoint = OS

Secondary endpoints: PFS, hPFS, ePFS, ORR, Conversion to resection, Toxicity

Correlatives – to improve patient selection and identify which patients may be at risk for short vs long term complications

Phase 1 trial of botensilimab, a multifunctional anti-CTLA-4, plus balstilimab (anti-PD-1) for metastatic MSI-S mCRC

botensilimab A Multifunctional Fc-enhanced Anti-CTLA-4



Driving Activity in Cold or I-O Refractory Tumors¹⁻⁴

- Enhanced T cell priming, expansion, memory^{5,6}
- Enhanced frequency of APCs
- Enhanced Treg depletion
- Reduced complement mediated toxicity

BOTENSILIMAB IS A NOVEL INNATE & ADAPTIVE IMMUNE ACTIVATOR



PATIENT DISPOSITION

Intent-to-treat Population (ITT; All Treated Patients) Safety Evaluable

101 Non-MSI-H patients received ≥1 dose

(1 or 2 mg/kg botensilimab Q6W + 3 mg/kg balstilimab Q2W)

77 with no active liver metastases

24 with active liver metastases

14 patients (including **6** with active liver metastases) did not receive ≥1 post-baseline 6-week imaging scan:

9 early progression

4 withdrew consent

1 related AE

Efficacy Evaluable (EE)

87 had ≥1 post-baseline 6-week imaging scan

69 with no active liver metastases

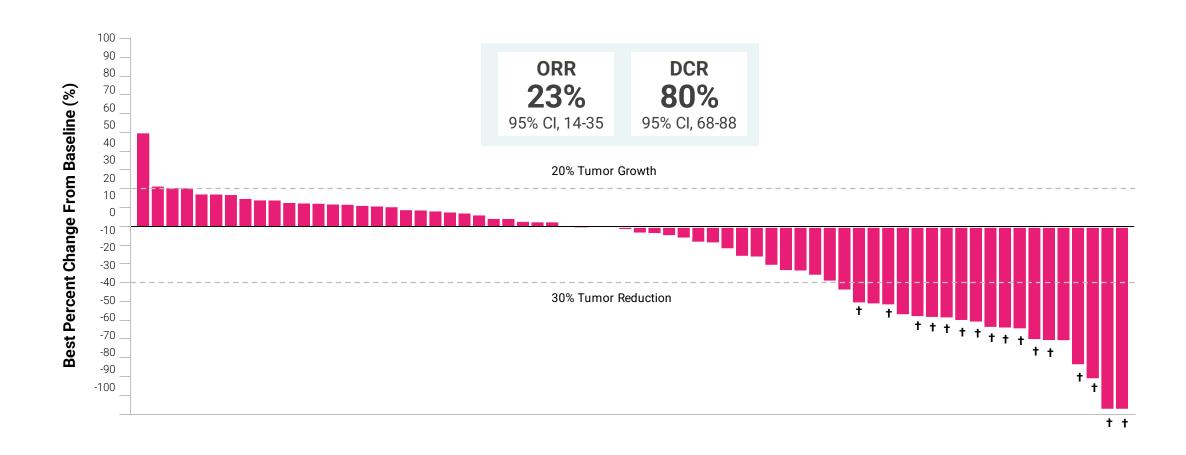
18 with active liver metastases



Data cutoff: 26-MAY-2023

DEEP OBJECTIVE RESPONSES

No Active Liver Metastases (Efficacy Evaluable, n=69*)



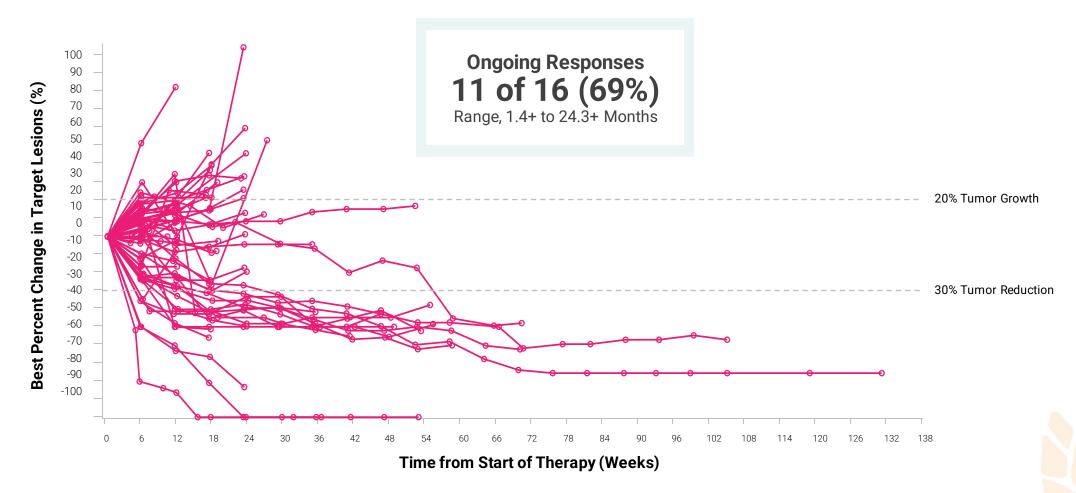
Data cutoff: 26-MAY-2023

^{*69} patients were evaluable with ≥1 post-baseline scan. One patient out of the 69 is not included in the waterfall plot because RECIST was recorded as SD but no percent change was recorded as of the data cutoff.

[†]Confirmed response (CR or PR).

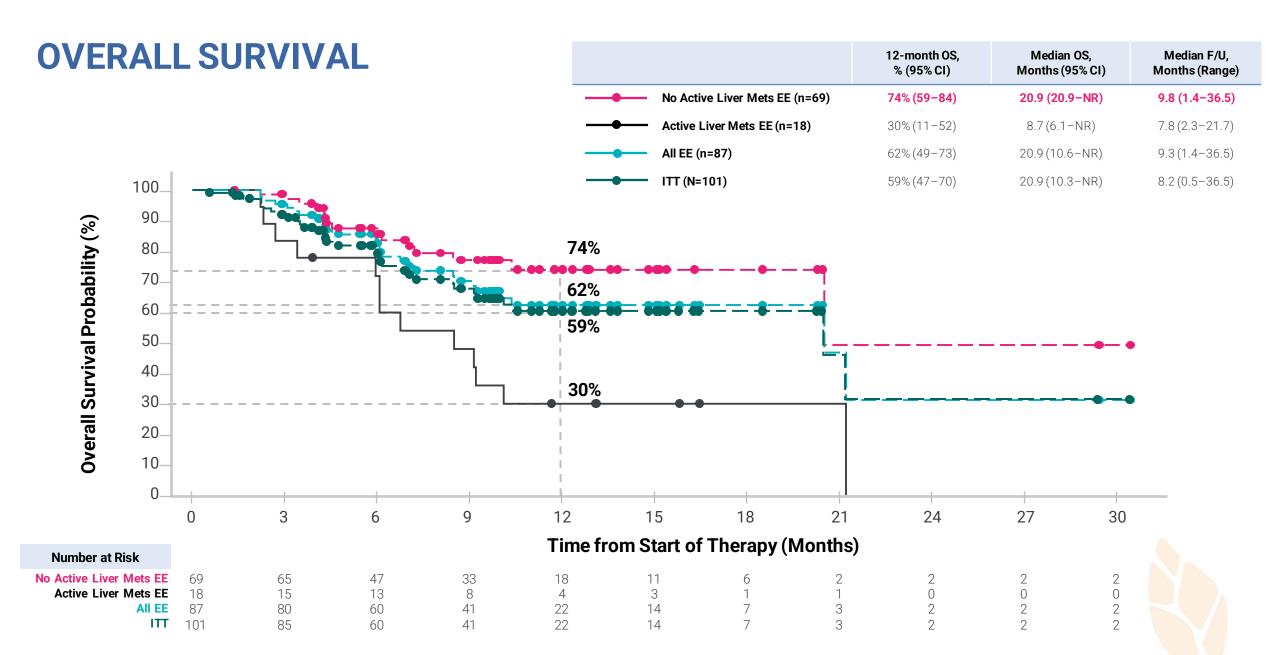
DURABLE OBJECTIVE RESPONSES

No Active Liver Metastases (Efficacy Evaluable, n=69*)



Data cutoff: 26-MAY-2023

^{*69} patients were evaluable with ≥1 post-baseline scan. One patient out of the 69 is not included in the spider plot because RECIST was recorded as SD but no percent change was recorded as of the data cutoff.



Data cutoff: 26-MAY-2023

DEEP AND DURABLE OBJECTIVE RESPONSES

	All EE n=87*	No Active Liver Mets EE n=69 [†]	Active Liver Mets EE n=18‡
Confirmed ORR, n % (95% CI)	18% (11-28)	23% (14-35)	0% (0-19)
BOR, n (%)			
CR	1 (1)	1 (1)	0
PR	15 (17)	15 (22)	0
SD	45 (52)	39 (57)	6 (33)
PD	26 (30)	14 (20)	12 (67)
DCR (CR + PR + SD), % (95% CI)	70% (59-80)	80% (68-88)	33% (13-59)
12-month OS, % (95% CI)	62% (49-73)	74% (59-84)	30% (11-52)
Ongoing responses§	1	1/16 (69%)	0

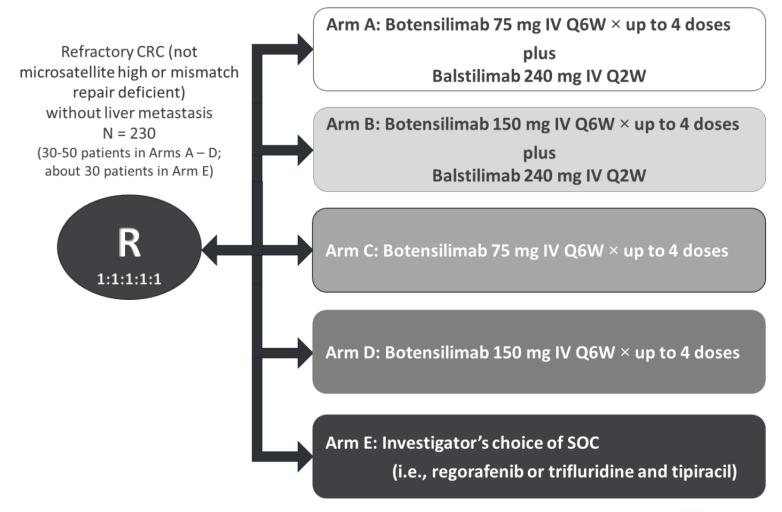
Bullock et al. WG1C, 2023 atients are ongoing.

^{*}Excludes patients with unconfirmed responses, among them one with a response in lung lesions who then became non-evaluable after a hemicolectomy which showed a pathologic CR, and another patient with a -60% reduction through week 60 who had a perisplenic nodule retrospectively identified as a new lesion at week 18.

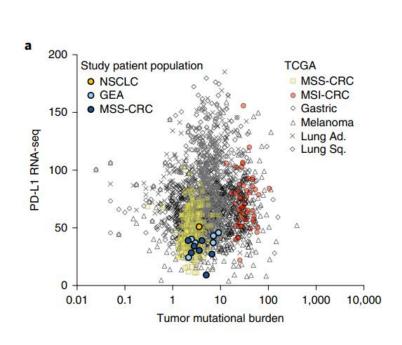
[†]In the ITT population with no active liver metastases (n=77), ORR was 21% (95% CI, 12−32) and DCR was 71% (95% CI, 60−81).

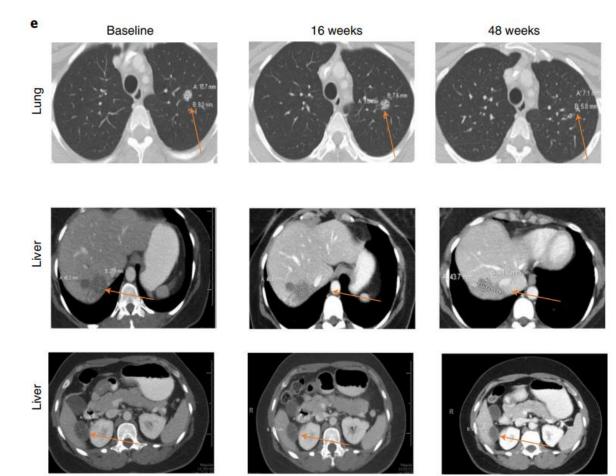
 $^{^{\}ddagger}$ In the ITT population with active liver metastases (n=24), ORR was 0% (95% CI, 0-14) and DCR was 25% (95% CI, 10-47).

A Randomized, Open-Label, Phase 2 Study of Botensilimab (AGEN1181) as Monotherapy and in Combination With Balstilimab (AGEN2034) or Investigator's Choice Standard of Care (Regorafenib or Trifluridine and Tipiracil) for the Treatment of Refractory Metastatic Colorectal Cancer

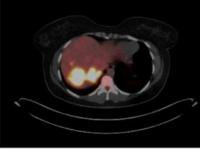


Promising Neoantigen Vaccine

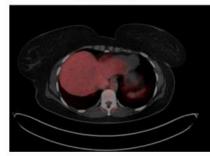




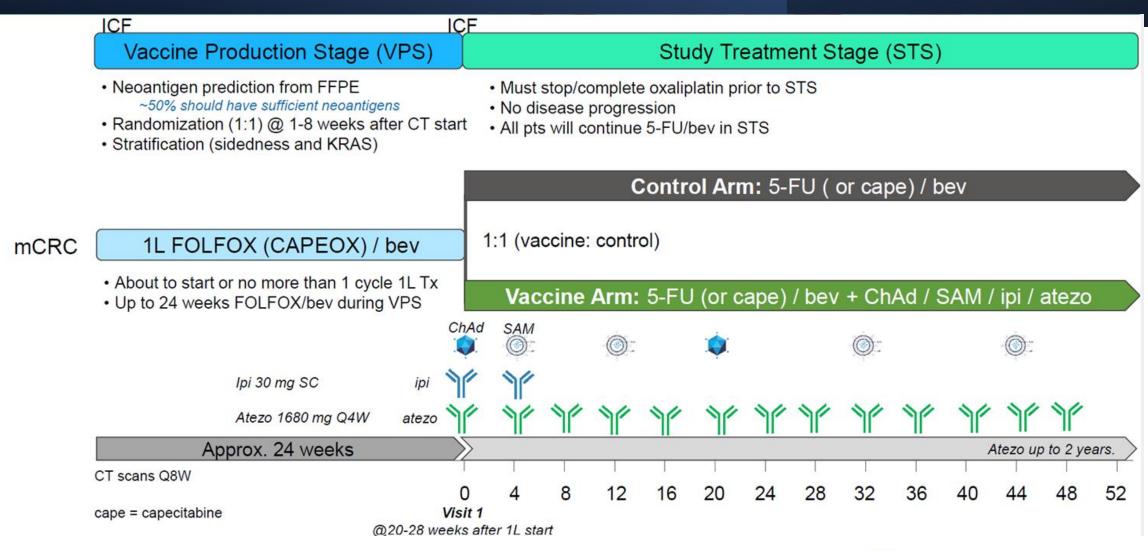
PET scan
Pretreatment



On treatment

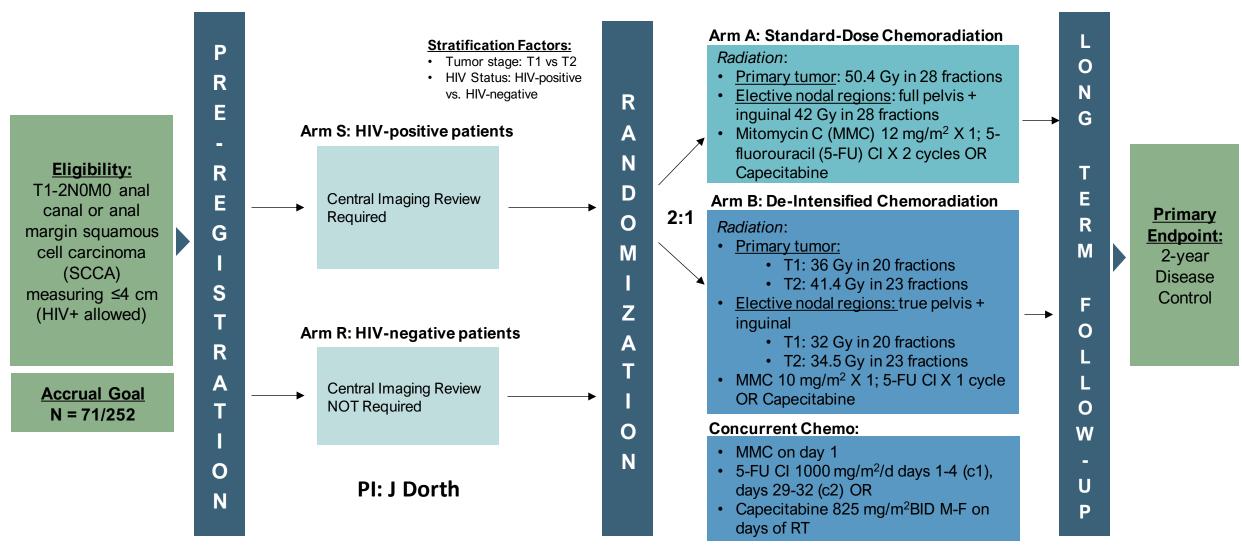


A Phase 2/3, Randomized, Open-Label Study of Maintenance GRT-C901/GRT-R902, A Neoantigen Vaccine + Atezolizumab in mCRC



Anal Cancer

EA2182 (NCT04166318) A Randomized Phase II Study of <u>De</u>-Intensified <u>ChemoRadiation for Early-Stage Anal Squamous Cell Carcinoma (DECREASE)</u>



^{*}Cycle = 4 weeks (28 days)





NCI9673 (Part B): A multi-institutional ETCTN randomized phase II study of nivolumab with or without ipilimumab in refractory, metastatic squamous cell carcinoma of the anal canal (NCT02314169)

V.K. Morris¹, K.K. Ciombor², B. Polite³, S. Mukherjee⁴, J.C. Krauss⁵, T. Shields⁶, O. Aranha⁷, J. Hays⁸, S. Kazmi⁹, B. Weinberg¹⁰, K. Nguyen¹¹, A.B. Benson¹², C. Lieu¹³, S. Iqbal¹⁴, H. Hochster¹⁵, L. Xiao¹, C. Eng²

¹University of Texas – MD Anderson Cancer Center; ²Vanderbilt-Ingram Cancer Center; ³University of Chicago; ⁴Roswell Park Cancer Institute; ⁵University of Michigan; ⁶Karmanos Cancer Institute; ⁷Washington University School of Medicine; ⁸The Ohio State University; ⁹The University of Texas Southwestern Medical Center; ¹⁰Georgetown University; ¹¹Yale University; ¹²Northwestern University; ¹³University of Colorado; ¹⁴University of Southern California; ¹⁵Rutgers University

Morris et al: WGIC, 2023

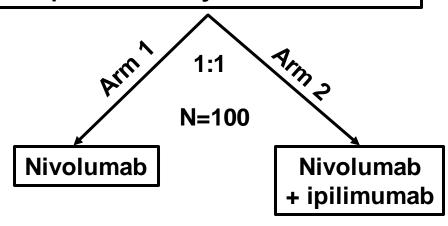


NCI9673 (Part B) Study Design

- Primary Endpoint:
 - Progression-free survival (PFS)
- Secondary Endpoints:
 - Overall response (RECIST 1.1)
 - Overall survival (OS)
 - Safety/toxicity (CTCAE v5)
- Statistical Design:
 - H₀: Median PFS_{Arm2} ≤ PFS_{Arm1}
 H_a: Median PFS_{Arm2} > PFS_{Arm1}
 - At a one-sided α=.10 and 90% power, 100 participants are needed to observe an improvement in median PFS from 4 to 7 months.

Participants with:

- Unresectable or metastatic SCCA
- ≥1 prior line of systemic treatment

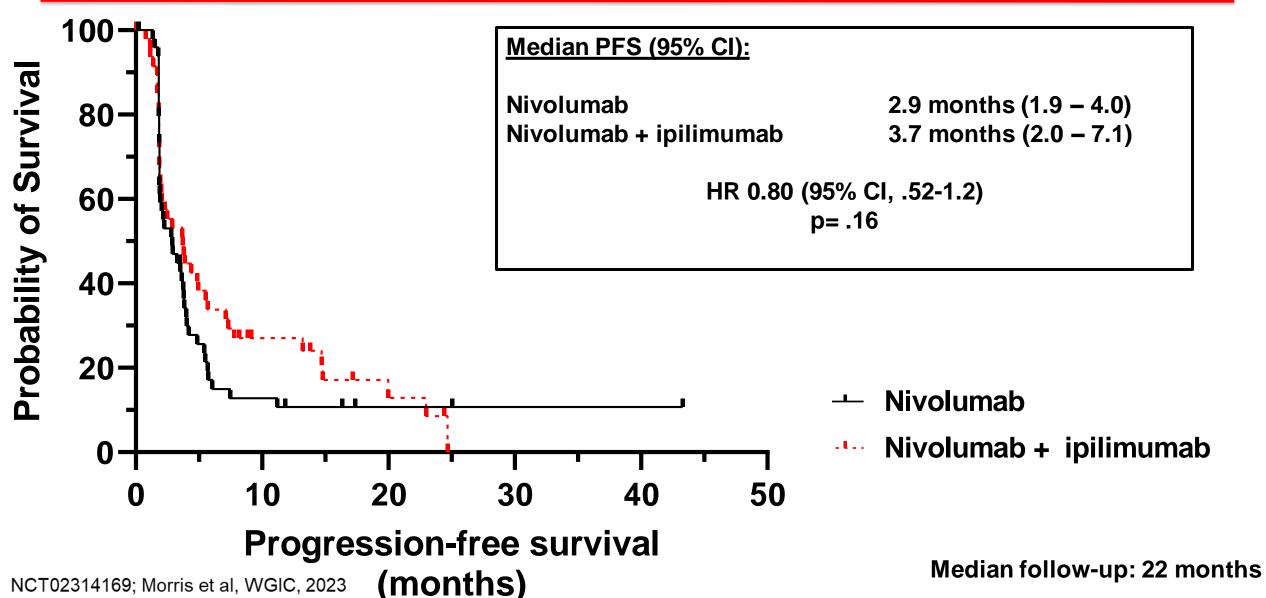


Study Treatment:

- Nivolumab: 480 mg IV every 4 weeks
- Ipilimumab 1 mg/kg IV every 8 weeks (Arm 2 only)

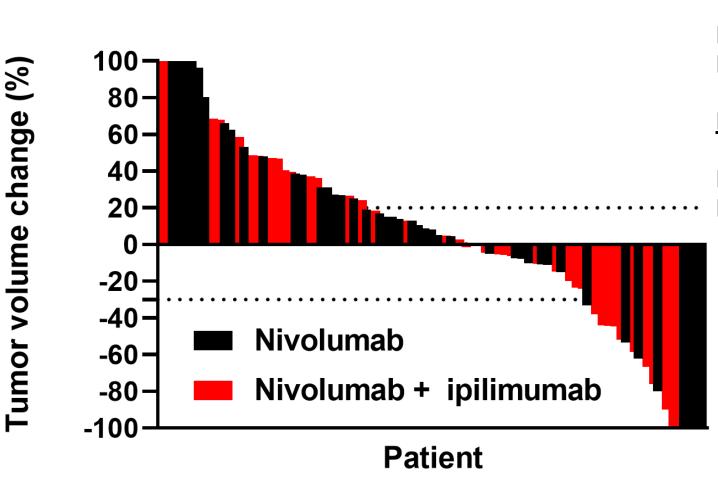


Progression-free survival





Response Assessment



Overall Response Rate (95% CI):

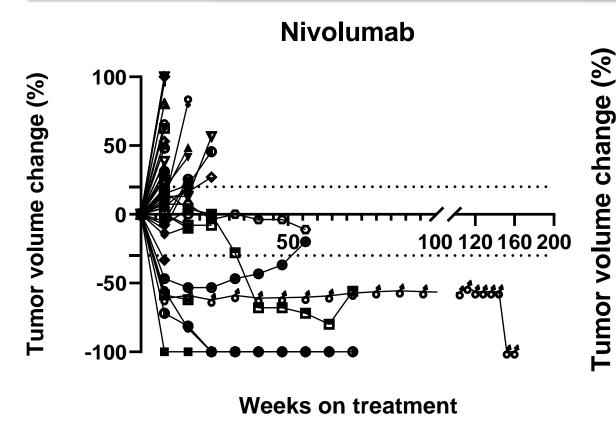
Nivolumab 17.4% (9.1-31) Nivolumab + ipilimumab 21.5% (12-36)

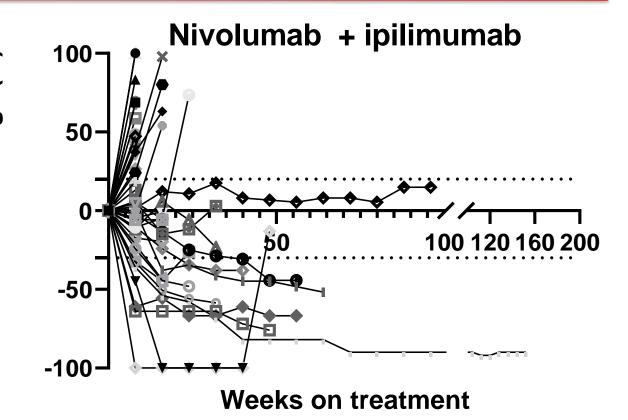
Disease Control Rate (95% CI):

Nivolumab 43.5% (30-58) Nivolumab + ipilimumab 47.6% (33-62)

	Nivolumab (%)	Nivolumab + Ipilimumab (%)
Complete Response	3 (6.5)	2 (4.8)
Partial Response	5 (10.9)	7 (16.7)
Stable Disease	12 (21.7)	11 (26.2)
Progressive Disease	26 (56.5)	22 (52.3)

Spider Plots





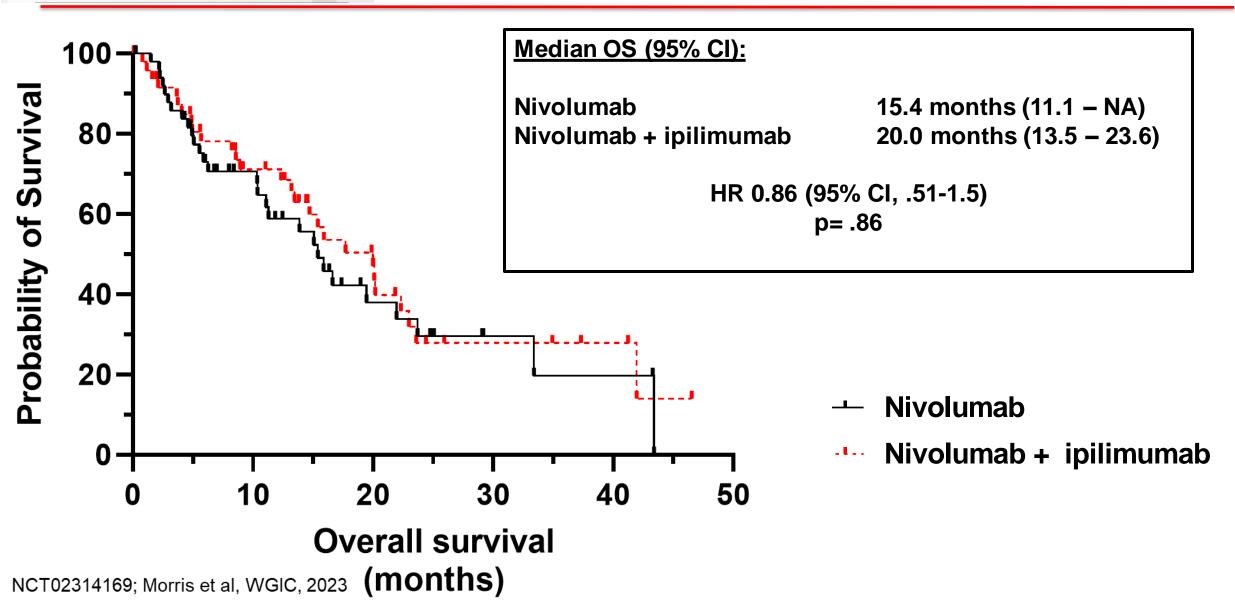
6-month PFS rate (95% CI)

Nivolumab

Nivolumab + ipilimumab

30 (20-50)

Overall survival





Safety/Toxicity Profile

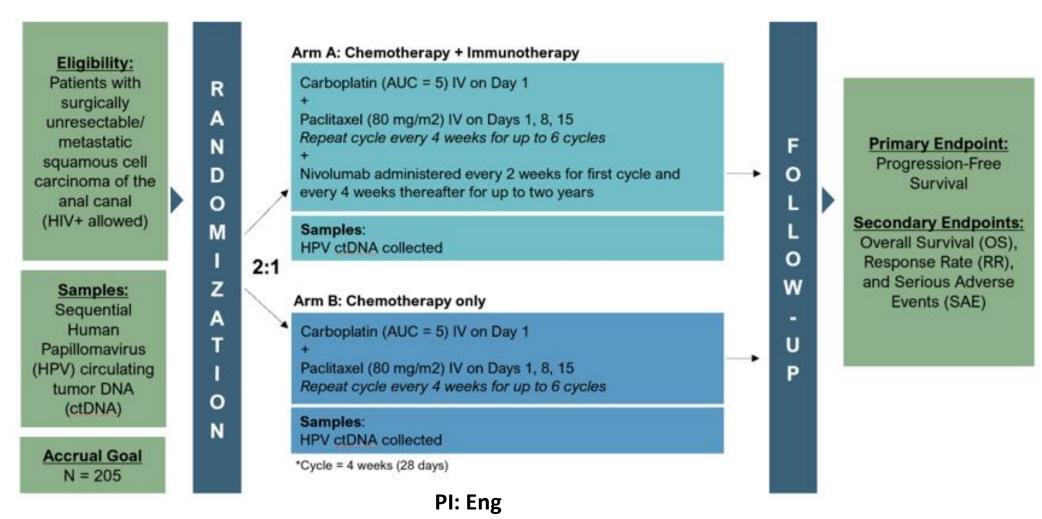
• One grade 5 event (pneumonitis) occurred in a participant receiving nivolumab + ipilimumab.

 There were 4 grade 4 events in participants receiving nivolumab + ipilimumab: hyperglycemia (N=3) and diabetic ketoacidosis (N=1).

• There were 6 (12%) participants with grade 3 AEs attributed to nivolumab, and 12 (25%) participants with grades 3-5 AEs attributed to nivolumab + ipilimumab.

Grade ≥3 event	Nivolumab (N=52)	Nivolumab + ipilimumab (N=48)
Pneumonitis	0	4
Hyperglycemia	0	3
Hyponatremia	2	1
Abdominal pain	1	1
Elevated ALT	0	2
Adrenal insufficiency	0	1
Fatigue	0	1
Hypophysitis	0	1
Nephrotic syndrome	1	0

Figure 3B: ECOG EA2176 (NCT04444921): Phase 3 Clinical Trial of Carboplatin and Pacliitaxel +/Nivolumab (2:1 randomization) in Treatment Naïve Metastatic Anal Cancer Patients



*HIV pts are eligible

Figure 1B: EA2165 (NCT03233711): A Randomized Phase III Study of Nivolumab After Combined Modality Therapy (CMT) in High-Risk Anal Cancer

