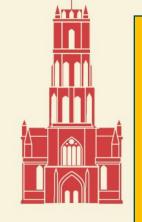
# The growing landscape of antibody-drug conjugates



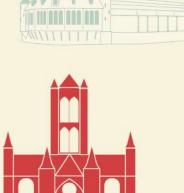
BLADDR 2022 ATHENS!

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University of Washington

Professor, Clinical Research Division Fred Hutchinson Cancer Center









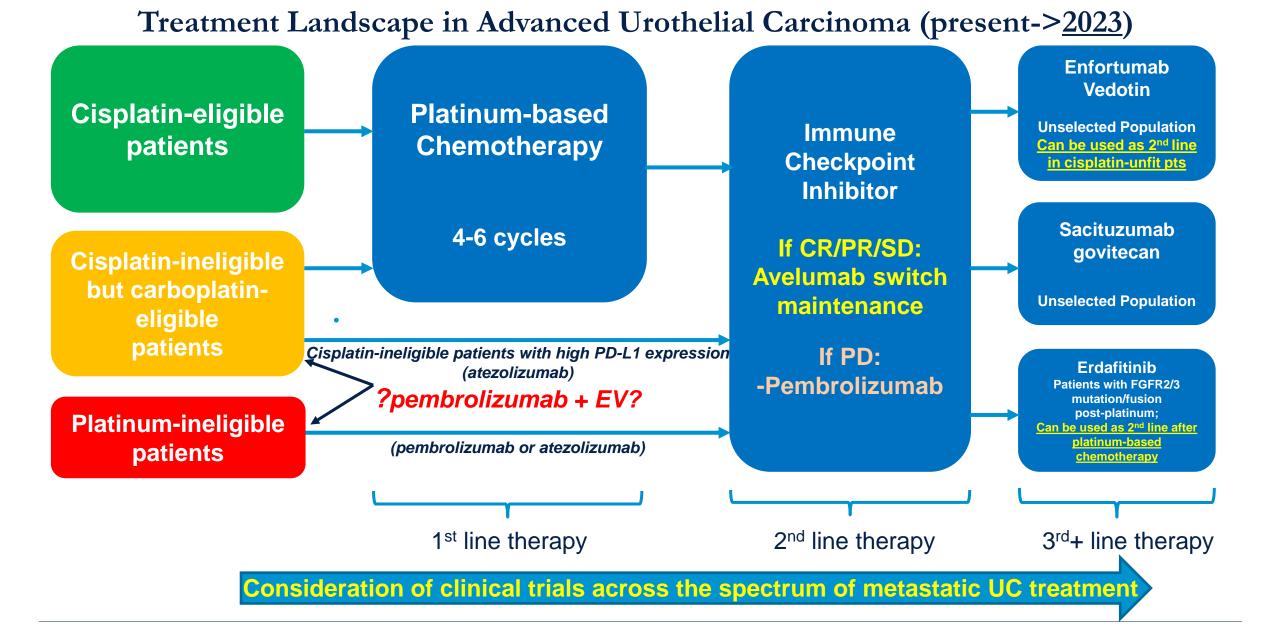






# **Disclosures**

- Institutional research funding: Bavarian Nordic; Bristol-Myers Squibb; Clovis Oncology; Debiopharm; EMD Serono;
   Gilead; Pfizer; Merck; QED Therapeutics; GlaxoSmithKline; Mirati Therapeutics, G1 Therapeutics
- Consulting: AstraZeneca; Astellas Pharma, BMS; Boston Gene, Dyania Health; EMDSerono; Exelixis; Lucence Health;
  Fresenius Kabi, G1 Therapeutics; Gilead; Guardant Health; Infinity Pharmaceuticals; Janssen; Merck; Mirati
  Therapeutics; Genentech/Roche; Pfizer; PureTech; Regeneron Pharmaceuticals; QED Therapeutics; Seattle Genetics,
  4D Pharma PLC, UroGen, Silverback Therapeutics



# EV-103: Phase 1b/2 Trial of EV + Pembrolizumab Cohort A

Patients with 1L <u>cisplatin-ineligible</u> la/mUC (N=45)

Dose escalation

EV + pembro (n=5)

Dose expansion cohort A

EV + pembro

(n=40)

EV 1.25 mg/kg days 1 and 8 of a 3-week cycle

+ embrolizumab 200 m

Pembrolizumab 200 mg on day 1 of a 3-week cycle

- 84% of patients had visceral disease, and 31% had liver metastasis
- 31% of patients had PD-L1 CPS ≥10

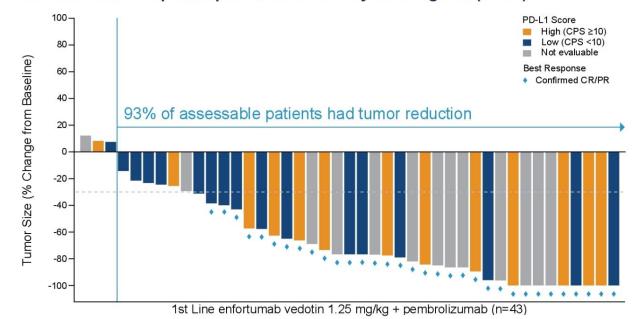
la = locally advanced.
Friedlander TW, et al. Presented at: ASCO Annual Meeting;
2021. Abstract 4528.

Confirmed ORR 95% CI	<b>73%</b> (33/45) (58.1, 85.4)
Complete response	16% (7/45)
Partial response	58% (26/45)

 57% confirmed ORR in patients with liver metastases

Maximum Target Lesion Reduction from Baseline by PD-L1 Status

#### Best Overall Response per RECIST v1.1 by Investigator (N=45)



# **Key Demographic and Baseline Disease Characteristics Cohort K**

# Representative of the 1L cisplatin-ineligible la/mUC population

	EV+P (N=76)	EV Mono (N=73)
Male sex, n (%)	54 (71.1)	56 (76.7)
	71 (51,	
Age (yrs), median (range)	91)	74 (56, 89)
White race, n (%)	61 (80.3)	55 (75.3)
<b>ECOG PS</b> , n (%)		
0	33 (43.4)	28 (38.4)
1	33 (43.4)	35 (47.9)
2	10 (13.2)	10 (13.7)
Primary tumor location, n (%)		
Lower tract	46 (60.5)	51 (69.9)
Upper tract	30 (39.5)	21 (28.8)

	EV+P (N=76)	EV Mono (N=73)
Metastasis disease sites, n (%)		
Bone	19 (25.0)	21 (28.8)
Liver	13 (17.1)	13 (17.8)
Lung	37 (48.7)	30 (41.1)
Metastasis category, n (%)		
Lymph node only	10 (13.2)	12 (16.4)
Visceral disease	64 (84.2)	60 (82.2)
Not applicable <sup>1</sup>	2 (2.6)	1 (1.4)
PD-L1 status by combined positive s	score,2 n (%)	
CPS<10	44 (57.9)	38 (52.1)
CPS≥10	31 (40.8)	28 (38.4)
Not Evaluable	1 (1.3)	7 (9.6)

CPS: Combined Positive Score; ECOG PS: Eastern Cooperative Oncology Group Performance Status; Mono: monotherapy; PD-L1: Programmed death-ligand 1



<sup>&</sup>lt;sup>1</sup>Patients had locally advanced disease without metastasis to lymph nodes or distant organs.

<sup>&</sup>lt;sup>2</sup>PD-L1 tested using the PD-L1 IHC 22C3 pharmDx assay from Agilent

# **Overall Response Rate by BICR**

### **EV+P: 64.5% confirmed ORR with rapid responses**

	EV+P (N=76)	EV Mono (N=73)
Confirmed ORR, n (% ) (95% CI)	49 (64.5) (52.7, 75.1)	33 (45.2) (33.5, 57.3)
Best overall response, n (%)		
Complete Response	8 (10.5)	3 (4.1)
Partial Response	41 (53.9)	30 (41.1)
Stable Disease	17 (22.4)	25 (34.2)
Progressive Disease	6 (7.9)	7 (9.6)
Not Evaluable	3 (3.9)	5 (6.8)
No Assessment	1 (1.3)	3 (4.1)
Median time to objective response (range), mos	2.07 (1.1, 6.6)	2.07 (1.9, 15.4)
Median number of treatment cycles (range)	11.0 (1, 29)	8.0 (1, 33)

#### EV+P

- 41/49 (85.7%) of responses observed at first assessment (week 9±1 wk)
- cORRs were consistent across all pre-specified subgroups
- 7/13 (53.8%) cORR observed in patients with liver metastases

#### **EV** monotherapy

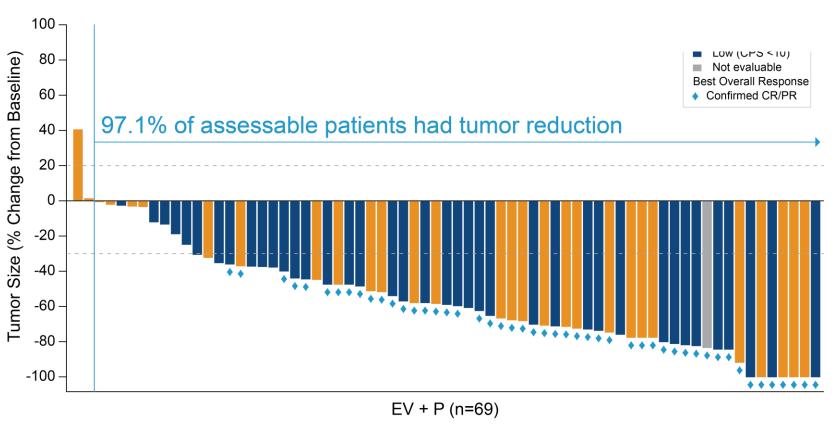
Activity is consistent with prior results in 2L+ la/mUC

BICR: Blinded Independent Central Review; cORR: Confirmed Objective Response Rate; NR: Not Reached



Data cutoff: 10Jun2022

# **EV+P: Maximum Percent Reduction from Baseline of Target Lesion by BICR**



PD-L1 Score

- High (CPS ≥10)
- Low (CPS <10)
- Not evaluable

Best Overall Response

- Confirmed CR/PR
- Activity seen regardless of PD-L1 status
  - 27/44 (61.4%) cORR in CPS<10
  - 21/31 (67.7%) cORR in CPS≥10

BICR: Blinded Independent Central Review; CPS: Combined Positive Score; CR: Complete Response; PD-L1: Programmed Death-Ligand 1 PR: Partial Response



# **Treatment-Related Adverse Events (TRAEs)**

Most common AEs with EV+P were fatigue, peripheral sensory neuropathy, alopecia, and maculo-papular rash

TRAEs <b>Any Grades</b> by Preferred	•	EV+P (N=76) n (%)		EV Mono (N=73) n (%)	
Term ≥20% of Patients	Any Grade	Grade ≥3	Any Grade	Grade ≥3	
Overall	76 (100.0)	48 (63.2)	68 (93.2)	35 (47.9)	
Fatigue	43 (56.6)	7 (9.2)	29 (39.7)	6 (8.2)	
Peripheral sensory neuropathy	39 (51.3)	1 (1.3)	32 (43.8)	2 (2.7)	
Alopecia	35 (46.1)	0	26 (35.6)	0	
Rash maculo-papular	35 (46.1)	13 (17.1)	21 (28.8)	1 (1.4)	
Pruritus	30 (39.5)	3 (3.9)	19 (26.0)	1 (1.4)	
Dysgeusia	23 (30.3)	0	25 (34.2)	0	
Weight decreased	23 (30.3)	3 (3.9)	21 (28.8)	1 (1.4)	
Diarrhea	22 (28.9)	5 (6.6)	20 (27.4)	4 (5.5)	
Decreased appetite	20 (26.3)	0	28 (38.4)	0	
Nausea	19 (25.0)	0	25 (34.2)	1 (1.4)	
Dry eye	15 (19.7)	0	8 (11.0)	0	

#### **Serious TRAEs**

- 18 (23.7%) EV+P
- 11 (15.1%) EV Mono

# TRAEs leading to death (per investigator)

- 3 (3.9%) EV+P (Pneumonitis, Respiratory failure, Sepsis)
- 2 (2.7%) EV Mono (Multiple organ dysfunction, Respiratory failure)



# Safety : Pembro may increase EV G≥3 TRAE

<b>∆~15%</b> TRAEs <b>Any Grades</b> by Preferred Term	EV+P (N n (%	•	EV Mono n (%	,
≥20% of Patients	Any Grade	Grade ≥3	Any Grade	Grade ≥3
Overall	76 (100.0)	48 (63.2)	68 (93.2)	35 (47.9)
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Nausea	19 (25.0)	0	25 (34.2)	1 (1.4)
Dry eye	15 (19.7)	0	8 (11.0)	0

# EV Mono (n= 301) from EV 301 L3 trial

Table 2. Treatment-Related Adverse Events (Safety Population).*			
Adverse Event	Enfortumab Vedotin Group (N = 296)		
	Any Grade	Grade ≥3	
		number of patien	
Any adverse event	278 (93.9)	152 (51.4)	
Alopecia	134 (45.3)	0	
Peripheral sensory neuropathy†	100 (33.8)	9 (3.0)	
Pruritus	95 (32.1)	4 (1.4)	
Fatigue	92 (31.1)	19 (6.4)	
Decreased appetite	91 (30.7)	9 (3.0)	
Diarrhea	72 (24.3)	10 (3.4)	
Dysgeusia	72 (24.3)	0	
Nausea	67 (22.6)	3 (1.0)	
Maculopapular rash	48 (16.2)	22 (7.4)	
Anemia	34 (11.5)	8 (2.7)	
Decreased neutrophil count	30 (10.1)	18 (6.1)	
Neutropenia	20 (6.8)	14 (4.7)	
Decreased white-cell count	16 (5.4)	4 (1.4)	
Febrile neutropenia	2 (0.7)	2 (0.7)	



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≥20% of Patients	Any Grade	Grade ≥3	Any Grade	Grade ≥3
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Decreased white-cell count	16 (5.4)	4 (1.4)	
Febrile neutropenia	2 (0.7)	2 (0.7)	



# EV-302: Randomized Phase 3 Trial of Enfortumab Vedotin + Pembrolizumab vs Chemotherapy

#### **Enfortumab vedotin** (Days 1 and 8) **Key eligibility criteria: Pembrolizumab** Untreated locally advanced or (Day 1) 1:1 randomization **Every 3-week cycle** metastatic urothelial cancer Gemcitabine Eligible for (Days 1 and 8) platinum-based chemotherapy and **Cisplatin or Carboplatin** for pembrolizumab (Day 1) **Every 3-week Cycle**

#### **Primary Objectives**

- PFS per RECIST by central review
- OS

#### **Secondary Objectives**

- PFS per RECIST by investigator
- ORR
- DOR
- DCR
- QOL
- Safety and tolerability

# **Enfortumab Vedotin (EV-201) Phase 2 Trial**



Screening and enrollment 67 global sites

Previously treated locally advanced or metastatic urothelial cancer



# <sup>1</sup> 2 patients did not receive enfortumab vedotin treatment due to admission to the hospital for disease progression and pursuing hospice care, respectively

#### Cohort 1

Prior PD-1/L1 inhibitor and platinum-based therapy



#### Cohort 2

Prior PD-1/L1 inhibitor, platinum naive, cisplatin ineligible

Enrollment completed February 2020 N=91<sup>1</sup>



#### **Enfortumab vedotin**

1.25 mg/kg IV on days 1, 8, and 15 of each 28-day cycle

#### Primary endpoint:

Confirmed ORR per RECIST v1.1 as determined by BICR

#### <u>Select secondary endpoints:</u>

DOR

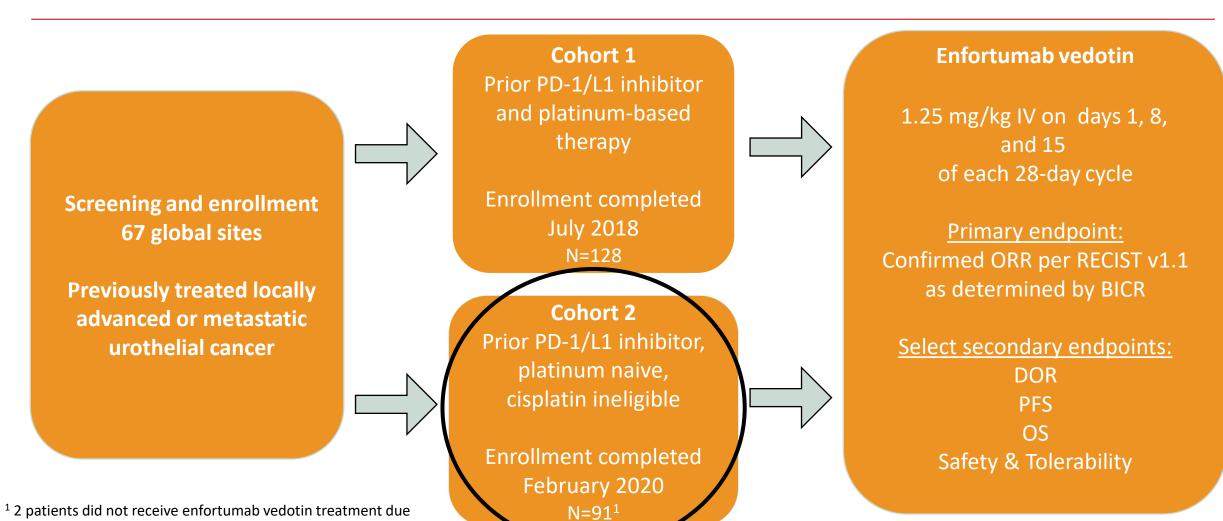
PFS

OS

Safety & Tolerability

BICR=blinded independent central review; DOR=duration of response; ORR=objective response rate; OS=overall survival; PFS=progression-free survival

# **Enfortumab Vedotin (EV-201) Phase 2 Trial**



to admission to the hospital for disease progression and

pursuing hospice care, respectively

BICR=blinded independent central review; DOR=duration of response; ORR=objective response rate; OS=overall survival; PFS=progression-free survival

## **EV-201 Cohort 2 Confirmed Best Overall Response per BICR**

ORR per RECIST v 1.1 assessed by BICR	Patients (N=89) %
Confirmed ORR, 95% CI <sup>1</sup>	52 (40.8, 62.4)
Best overall response	%
Complete response	20
Partial response	31
Stable disease	30
Progressive disease	9
Not evaluable <sup>2</sup>	9

ORR = Objective Response Rate; BICR = Blinded Independent Central Review

<sup>&</sup>lt;sup>1</sup> CI = Confidence Interval, Computed using the Clopper-Pearson method

<sup>&</sup>lt;sup>2</sup> Includes five subjects who did not have response assessment post-baseline, two subjects whose post-baseline assessment did not meet the minimum interval requirement for stable disease, and one subject whose response cannot be assessed due to incomplete anatomy.

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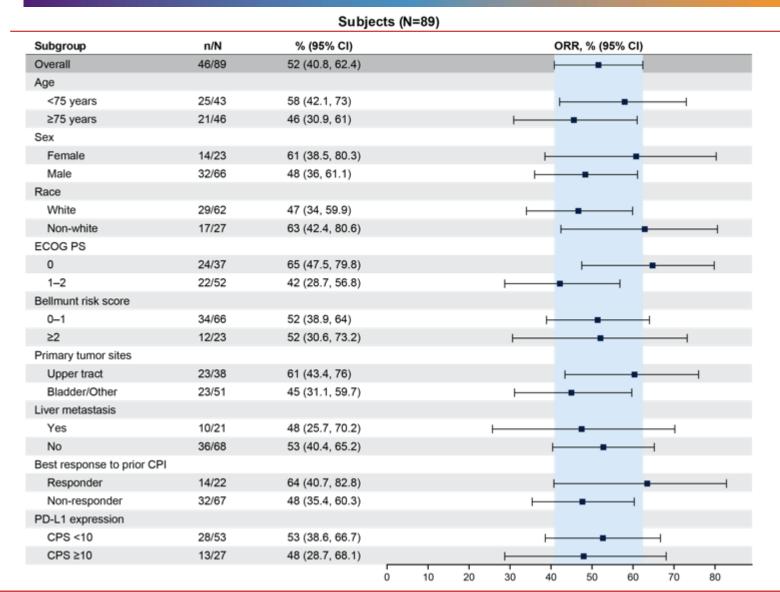
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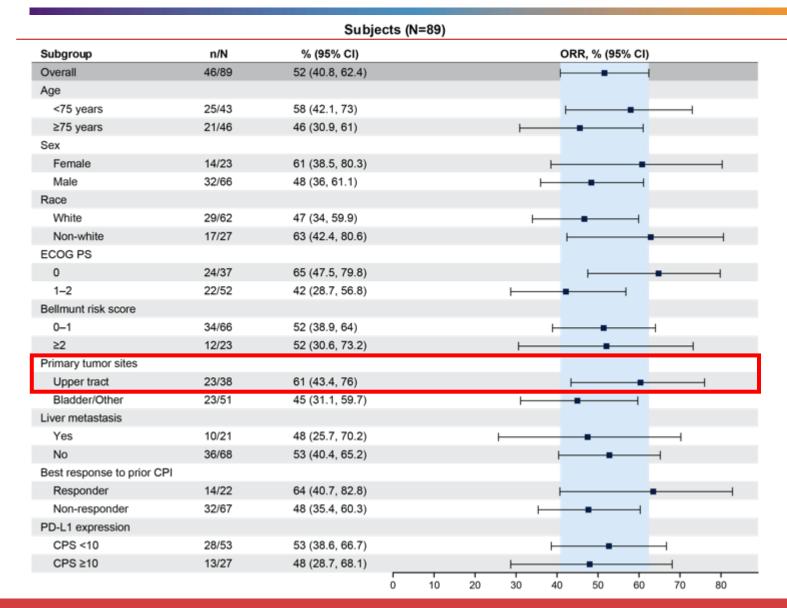
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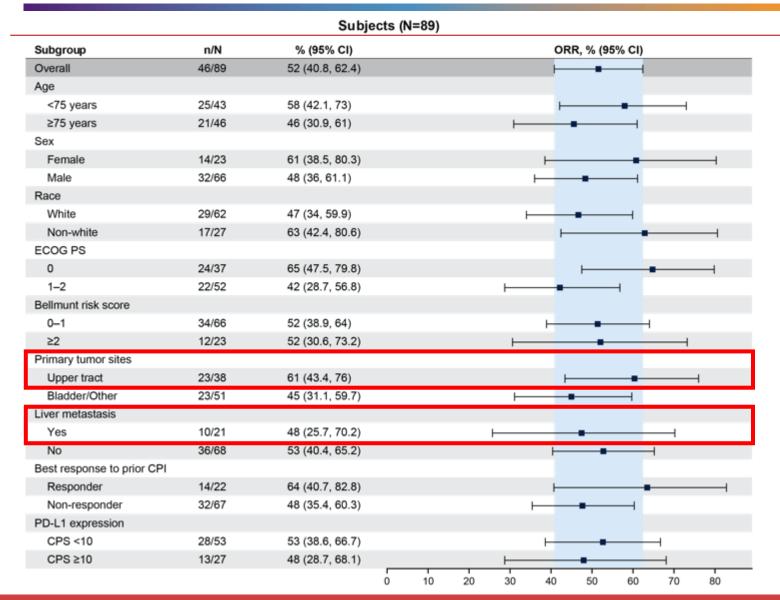
Responses were observed across all subgroups, including patients:

- with liver metastasis (48%)
- with primary tumor sites in the upper tract (61%)
- who did not respond to prior PD-1/PD-L1 inhibitors (48%)



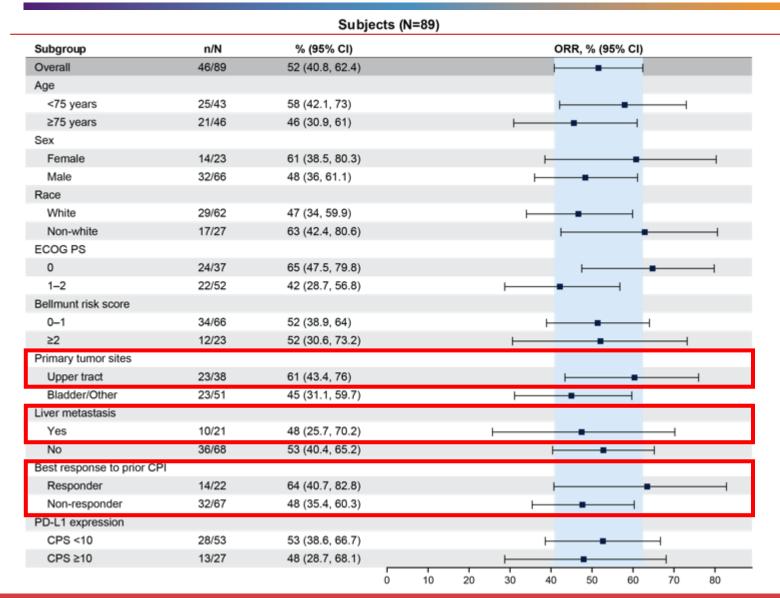
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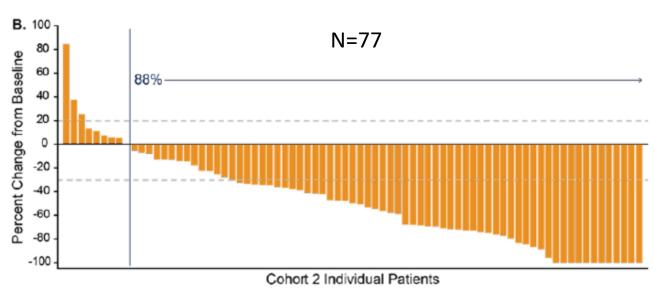
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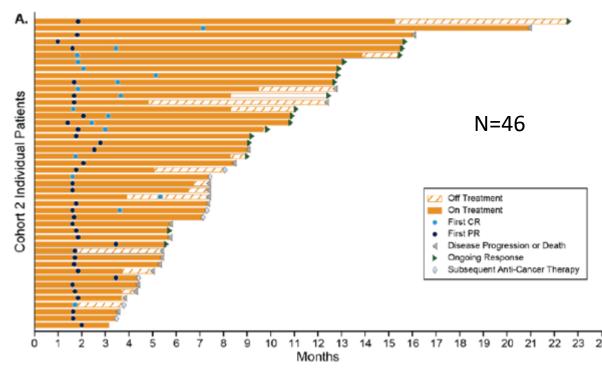
Responses were observed across all subgroups, including patients:

- with liver metastasis (48%)
- with primary tumor sites in the upper tract (61%)
- who did not respond to prior PD-1/PD-L1 inhibitors (48%)

# EV-201 Cohort 2 Change in Tumor Measurements and Durability of Response



Data not available for 12 subjects to to no response assessment post-baseline (n=5), incomplete assessment of target lesions post-baseline (n=1), or no measurable disease at baseline per BICR (n=6)



### **EV-201 Cohort 2 Treatment-Related Adverse Events**

	Patients (N=89)			
Treatment-related AEs by preferred	n (%)			
term in ≥20% of patients (any	Any Grade	≥Grade		
Grade) or ≥5% (≥Grade 3)	Ally Grade	3		
Alopecia	45 (51)	_		
Peripheral sensory neuropathy	42 (47)	3 (3)		
Fatigue	30 (34)	6 (7)		
Decreased appetite	29 (33)	5 (6)		
Pruritus	27 (30)	3 (3)		
Rash maculo-papular	27 (30)	7 (8)		
Dysgeusia	24 (27)	_		
Weight decreased	23 (26)	1 (1)		
Anemia	22 (25)	5 (6)		
Diarrhea	20 (22)	5 (6)		
Nausea	20 (22)	1 (1)		
Neutropenia	11 (12)	8 (9)		
Hyperglycemia	8 (9)	5 (6)		
Lipase increased	7 (8)	5 (6)		

Treatment-related AEs led to discontinuations in 16% of patients with peripheral sensory neuropathy as the most common reason (4%)

#### **Treatment-Related AEs leading to death:**

4 deaths considered to be treatment related by the investigator:

- acute kidney injury
- metabolic acidosis
- multiple organ dysfunction syndrome
- pneumonitis (occurred >30 days of last dose)

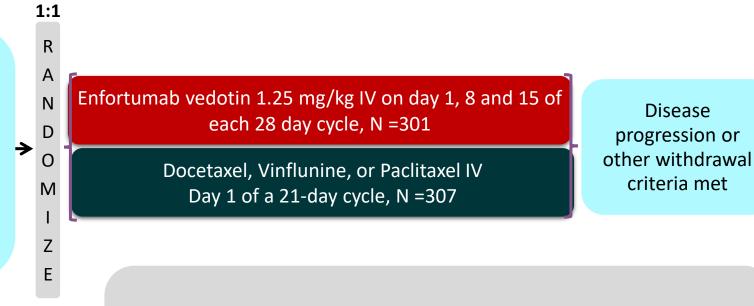
3 of these deaths occurred within 30 days of first dose of EV occurred in patients with BMI ≥30 kg/m<sup>2</sup>

All 4 deaths: confounded by age (≥75 years) and other comorbidities

### **EV-301** Randomized Phase 3 Trial

#### **Key Inclusion Criteria:**

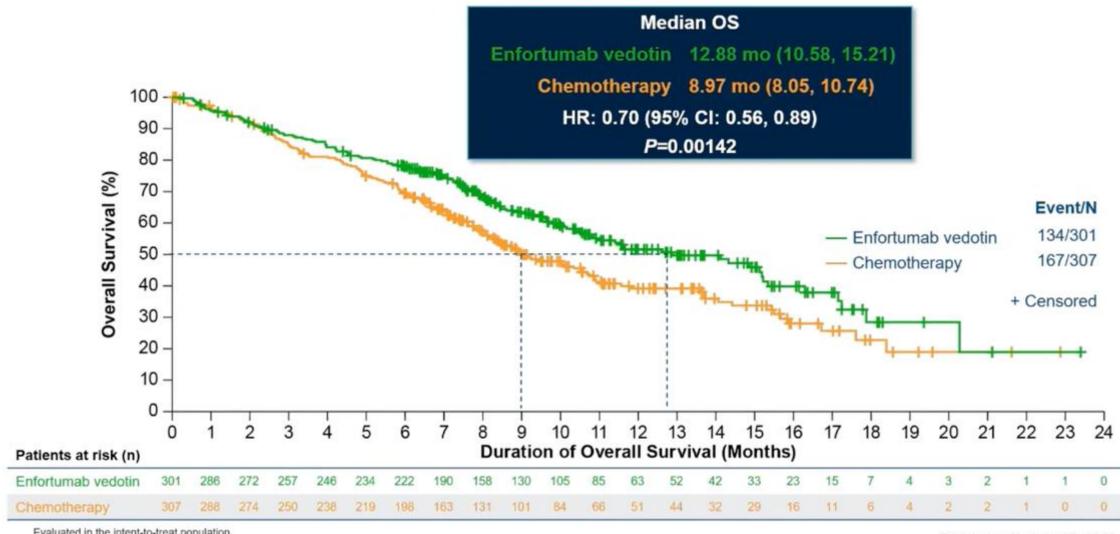
- Locally advanced, unresectable or metastatic UC (squamous differentiation and mixed histologies allowed)
- Progression or relapse after PD-1/PD-L1 therapy
- Receipt of prior platinum chemotherapy (if perioperative receipt must have progressed within 12 months)
- ECOG PS 0 or 1



**Primary Endpoint:** Overall survival

**Secondary Endpoints:** PFS, ORR, disease control rate, duration of response, safety, patient-reported outcomes.

### **EV-301 Overall Survival**

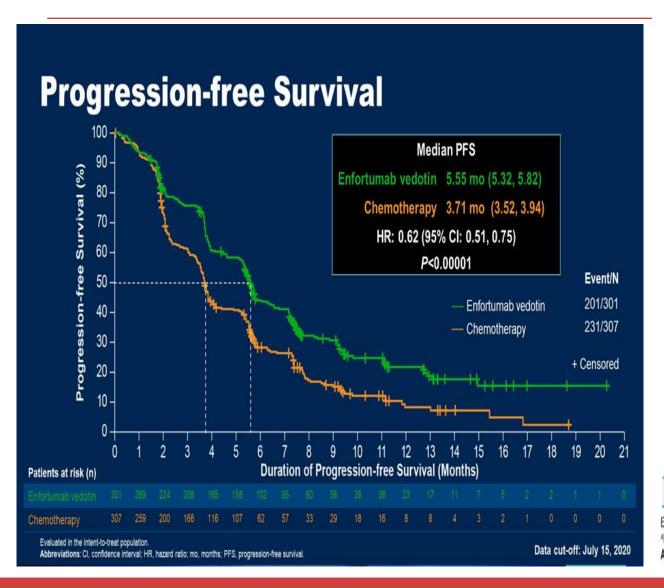


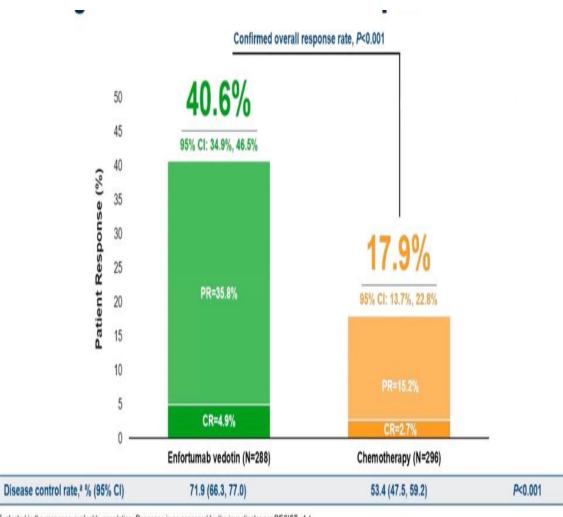
Evaluated in the intent-to-treat population.

Abbreviations: CI, confidence interval; HR, hazard ratio; OS, overall survival.

Data cut-off: July 15, 2020

## **EV-301** Investigator-Assessed Overall Response





Evaluated in the response-evaluable population. Response is as assessed by the investigator per RECIST v1.1.

\*Indicates the proportion of patients who had a best overall response of confirmed CR, PR, or SD (at least 7 weeks); enfortumab vedotin vs chemotherapy.

\*Abbreviations: CI, confidence interval; CR, complete response; PR, partial response; RECIST, Response Evaluation Criteria in Solid Tumors; SD, stable disease.

Data cut-off: July 15, 2020

### **EV-301 Adverse Events**

# **Treatment-Related Adverse Events**

Adverse Event	Enfortum N=	Chemotherapy N=291		
	All Grade	Grade ≥3		Grade ≥3
Any adverse event	94%	51%	92%	50%
Alopecia	45%	0	36%	0
Peripheral sensory neuropathy	34%	3%	21%	2%
Pruritus	32%	1%	5%	0
Fatigue	31%	6%	23%	5%
Decreased appetite	31%	3%	23%	2%
Diarrhea	24%	3%	17%	2%
Dysgeusia	24%	0	7%	0
Nausea	23%	1%	22%	1%
Rash maculopapular	16%	7%	2%	0
Anemia	12%	3%	20%	8%
Neutrophil count decreased	10%	6%	17%	13%
Neutropenia	7%	5%	8%	6%
White blood cell decreased	5%	1%	11%	7%
Febrile neutropenia	1%	1%	6%	6%
Serious adverse events <sup>a</sup>	23%		23%	
Leading to treatment withdrawal	14%	*	11%	

TRAEs leading to death, excluding disease progression, occurred in 7 patients (2.4%) treated with EV and 3 (1.0%) treated with chemotherapy.

### **EV-301 Adverse Events**

# **Adverse Events of Special Interest**

Treatment-Related Adverse Event	Enfortumab Vedotin N=296		Chemotherapy N=291	
	All Grade	Grade ≥3	All Grade	Grade ≥3
Skin Reactions <sup>a</sup>	47%	15%	16%	1%
Rash	44%	15%	10%	0c
Severe cutaneous adverse reactions <sup>b</sup>	20%	5%	8%	1%
Peripheral neuropathy	46%	5%	31%	2%
Sensory events	44%	4%	30%	2%
Motor events	7%	2%	2%	0
Hyperglycemia	6%	4%	0c	0

The majority of TRAEs of special interest were mild-to-moderate in severity.

# **Treatment-Related Adverse Events**

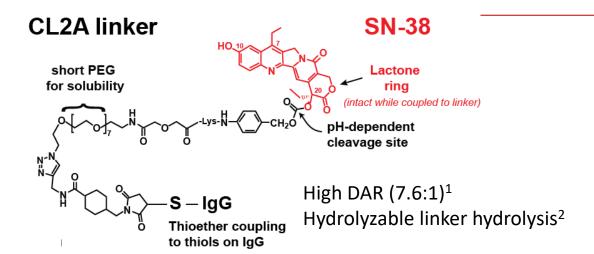
Adverse Event	Enfortumab Vedotin N=296		Chemotherapy N=291	
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Dysgeusia	24%	0	7%	0
Nausea	23%	1%	22%	1%
Rash maculopapular	16%	7%	2%	0
Anemia	12%	3%	20%	8%
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Leading to treatment withdrawal	14%		11%	

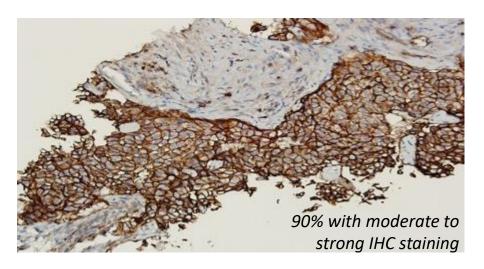
TRAEs leading to death, excluding disease progression, occurred in 7 patients (2.4%) treated with EV and 3 (1.0%) treated with chemotherapy.

# Sacituzumab govitecan

- 1. Cardillo TM, et al. Bioconjug Chem 2015; 26:919-31
- 2. Govindan SV, et al. Mol Cancer Ther 2013; 12:968-78

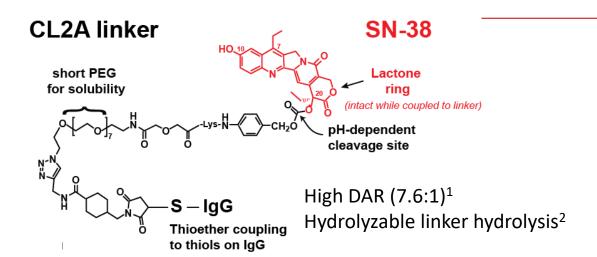
## Sacituzumab govitecan

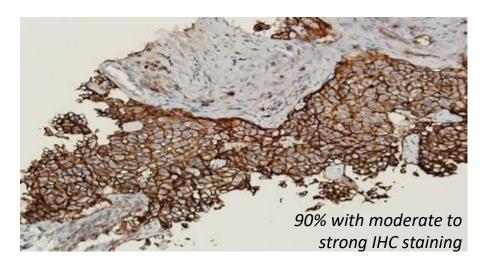




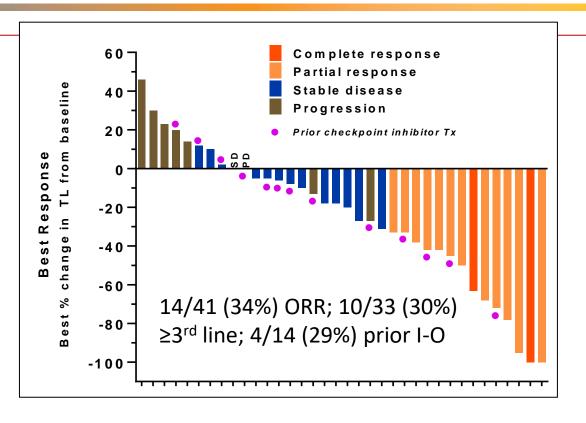
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## Sacituzumab govitecan





- 1. Cardillo TM, et al. Bioconjug Chem 2015; 26:919-31
- 2. Govindan SV, et al. Mol Cancer Ther 2013; 12:968-78



- Final 14/45 (31%) ORR
- Median PFS 7.3 months
- Median OS 18.9 months

# TROPHY-U-01 Is a Registrational, Open-Label, Multicohort Phase 2 Trial in Patients With mUC



Cohort 1\* (~100 patients): patients with mUC who progressed after prior platinum-based and CPI-based therapies

Cohort 2 (~40 patients): patients with mUC ineligible for platinum-based therapy and who progressed after prior CPI-based therapies

Cohort 3<sup>a</sup> (up to 61 patients): mUC CPI naïve patients who progressed after prior platinum-based therapies

**Cohort 4** (up to 60 patients): mUC platinumnaïve patients

**Cohort 5** (up to 60 patients): mUC platinumnaïve patients SG 10 mg/kg
Days 1 and 8, every 21 days

SG 10 mg/kg Days 1 and 8, every 21 days

SG 10 mg/kg Days 1 and 8, every 21 days

> Pembrolizumab 200 mg day 1 every 21 days

Days 1 and 8, every 21 days

Cisplatin<sup>b</sup>

Days 1 and 8, every 21 days

Cisplatin<sup>c</sup>

Avelumab 800 mg every 2 weeks

Continue treatment in the absence of unacceptable toxicity or disease progression

Objective response rate per RECIST 1.1 criteria

Key Secondary Endpoints: Safety/tolerability, DOR, PFS, OS

**Primary Endpoint:** 

Continue until a maximum of 6 cycles has been completed, disease progression, lack of clinical benefit, toxicity, or withdrawal of consent

Maintenance avelumab (800 mg every 2 weeks) with SG (Days 1 and 8 every 21 days) for those without disease progression

**Key Inclusion Criteria**: Age ≥18 years, ECOG of 0/1, creatinine clearance (CrCl) ≥30 mL/min,<sup>b,c</sup> adequate hepatic function **Key Exclusion Criteria**: Immunodeficiency, active Hepatitis B or C, active secondary malignancy, or active brain metastases

\*Accelerated FDA approval for treatment of patients with locally advanced or mUC who previously received platinum-containing chemotherapy and PD-1/L1 inhibitor<sup>1</sup>

aExclusions for Cohort 3 only: active autoimmune disease or history of interstitial lung disease. In patients with CrCl ≥60 mL/min; In patients with creatinine clearance 50–60 mL/min. For patients who have not progressed, maintenance therapy will begin with infusions of avelumab (800 mg every 2 weeks beginning cycle 1, day 1 and every 2 weeks thereafter) followed by SG on days 1 and 8 every 21 days.

CBR, clinical benefit rate; CPI, checkpoint inhibitor; CrCl, creatinine clearance; DOR, duration of response; ECOG PS, Eastern Cooperative Oncology Group performance status; mUC, metastatic urothelial cancer; NR, not reached; ORR, objective response rate; OS, overall survival; PFS, progression-free survival; RECIST, Response Evaluation Criteria in Solid Tumors; SG, sacituzumab govitecan.

1. TRODELVY™ (sacituzumab govitecan-hziv). Prescribing Information. Immunomedics. Inc.: April 2021: EudraCT Number: 2018-001167-23: ClinicalTrials.gov Number: NCT03547973. IMMU-132-06 study.

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> Pembrolizumab 200 mg day 1 every 21 days

Days 1 and 8, every 21 days

Cisplatin<sup>b</sup>

Days 1 and 8, every 21 days

Cisplatin<sup>c</sup>

Avelumab 800 mg every 2 weeks

the absence of unacceptable toxicity or disease progression

Continue treatment in

Continue until a maximum of 6 cycles has been completed,d disease progression, lack of clinical benefit, toxicity, or withdrawal of consent

**Primary Endpoint: Objective response rate** 

per RECIST 1.1 criteria

**Key Secondary Endpoints:** Safety/tolerability, DOR, PFS, OS

> Maintenance avelumab (800 mg every 2 weeks) with SG (Days 1 and 8 every 21 days) for those without disease progression

**Key Inclusion Criteria**: Age ≥18 years, ECOG of 0/1, creatinine clearance (CrCl) ≥30 mL/min,<sup>b,c</sup> adequate hepatic function Key Exclusion Criteria: Immunodeficiency, active Hepatitis B or C, active secondary malignancy, or active brain metastases

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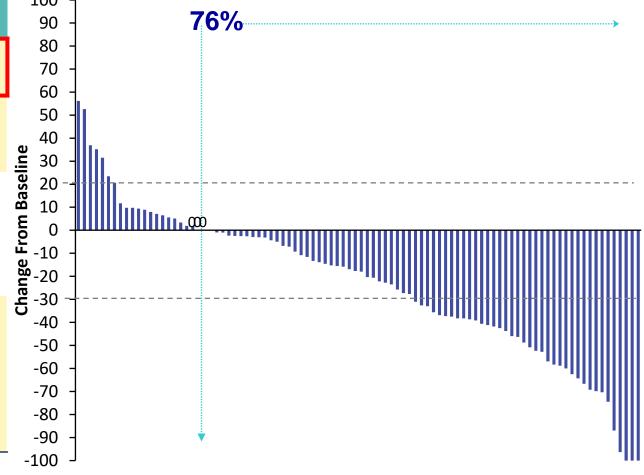
## **TROPHY-U-01 Cohort 1 Response and Reduction in Tumor Size**

Endpoint	Cohort 1 (N=113)
ORR, n (%) [95% CI]	31 (27) [19, 37]
CR, n (%) PR, n (%)	6 (5) 25 (22)
Median duration of response, mos [95% CI] (Range)	<b>5.9</b> [4.70, 8.60] (1.4–11.7)
Median time to onset of response, mos (Range)	1.6 (1.2–5.5)

<sup>&</sup>lt;sup>a</sup>Assessments were per Blinded Independent Review Assessment, RECIST 1.1. CI, confidence interval; CR, complete response; ORR, objective response rate; PR, partial response; TTR, time to response.

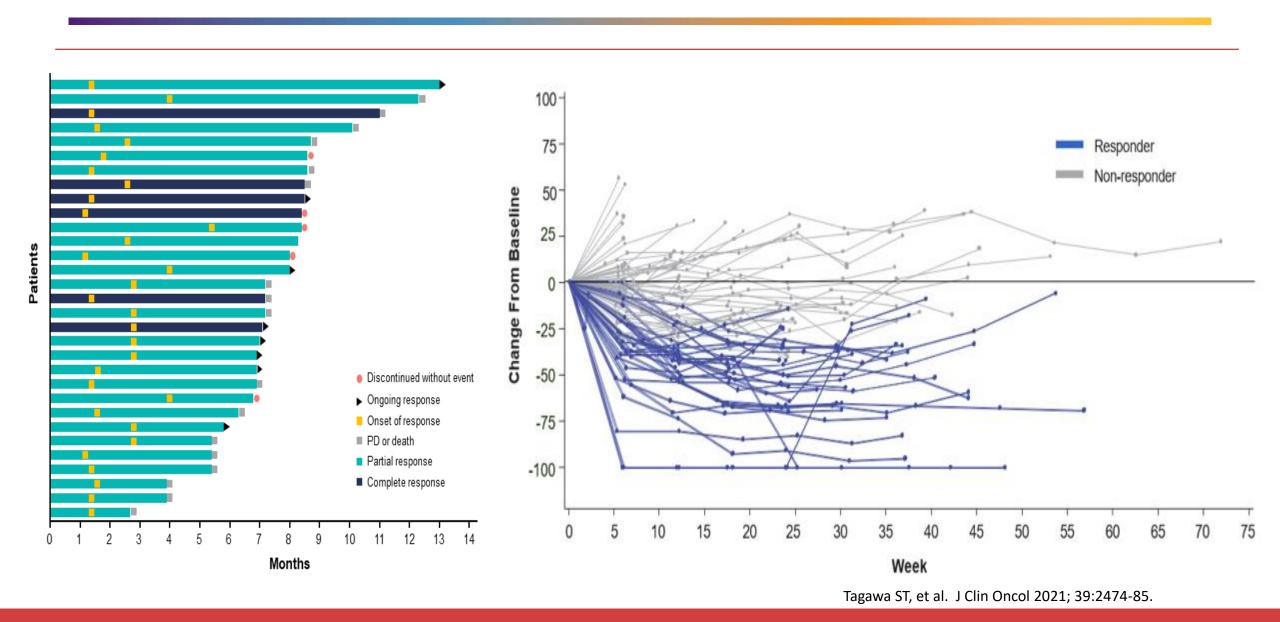
## **TROPHY-U-01 Cohort 1 Response and Reduction in Tumor Size**

Endpoint	Cohort 1 (N=113)	100 · 90 ·	7	76%
ORR, n (%) [95% CI]	31 (27) [19, 37]	80 · 70 · 60 ·	<u></u>	
CR, n (%) PR, n (%)	6 (5) 25 (22)	50 - 40 -		
Median duration of response, mos [95% CI] (Range)	<b>5.9</b> [4.70, 8.60] (1.4–11.7)	Change From Baseline 0 - 02 - 05 - 20 06 - 30	- - - - - - - -	D 
Median time to onset of response, mos (Range)	1.6 (1.2–5.5)	-30 - -40 - -50 - -60 - -70 - -80 - -90 -	- - - - - -	•



<sup>&</sup>lt;sup>a</sup>71/94 patients with at least one post-baseline target lesion measurement and accepted for central review. Fourteen patients had no post-treatment imaging, 1 patient lacked measurable lesions by central review, and 4 patients had poor image quality. Tagawa ST, et al. J Clin Oncol 2021; 39:2474-85.

### **TROPHY-U-01 Cohort 1 Durability of Response**



## TROPHY-U-01 Cohort 1 Treatment-Related Adverse Events >20% any grade or >5% Grade >3 (n=113)

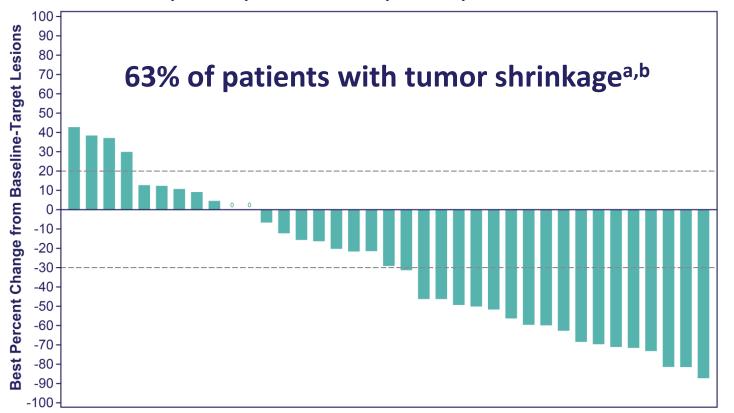
Category	Event	All Grades (%)	Grade 3 (%)	Grade 4 (%)
	Neutropenia	46	22	12
	Leukopenia	26	12	5
Hematologica	Anemia	34	14	0
	Lymphopenia	12	5	2
	Febrile neutropenia	10	7	3
Gastrointestinal	Diarrhea <sup>b</sup>	65	9	1
	Nausea	58	4	0
	Vomiting	28	1	0
General disorders & administrative site conditions	Fatigue	50	4	0
Skin & subcutaneous tissue	Alopecia	47	0	0
Metabolism & nutrition	Decreased appetite	36	3	0
Infections & infestations	Urinary tract infection	8	6	0

- 7 (6%) pts discontinued due to TRAEs
  - 3 discontinued due to neutropenia or its complications
- 30% G-CSF usage
- 1 treatment-related death (sepsis due to febrile neutropenia)

#### ŤROPHΥ υ-01

## Overall Response and Best % Change From Baseline in Tumor Size (Cohort 3: Pembro + SG)

- Median follow-up: 5.8 months (data cutoff date: 2021-09-24)
- Median time to response: 2 months (1.3–2.8; n=14)
- Median DOR not yet reached: N/A (2.80-N/A)
- Median PFS (95% CI), 5.5 months (1.7–NR); median OS, not reached



	Cohort 3 <sup>a</sup> (N=41)	
Objective response rate (CR + PR), n (%) [95%CI]	14 (34) [20.1-50.6]	
Objective response rate (CR + PR), evaluable patients, n (%)	14 (38)	
Best overall response, n (%)		
CR	1 (2)	
PR	13 (32)	
SD	11 (27)	
SD ≥ 6 months	4 (10)	
PD	12 (29)	
Not assessed	4 (10)	
Clinical Benefit Rate (CR + PR + SD), n (%) [95%Cl]	25 (61) [44.5-75.8]	

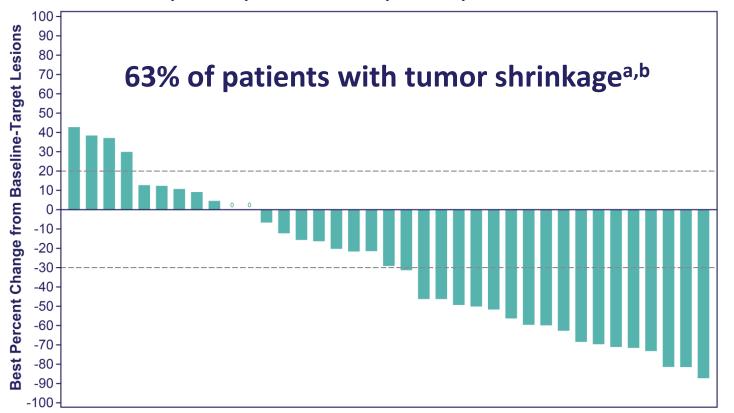
**Patient Number** 

<sup>&</sup>lt;sup>a</sup>Responses assessed by investigator in the intent-to-treat population. <sup>b</sup>Patients without post-baseline assessments are not shown here. CI, confidence interval; CR, complete response; DOR, duration of response; ORR, objective response rate; PD, progressive disease; PR, partial response; SD, stable disease

## TROPHY

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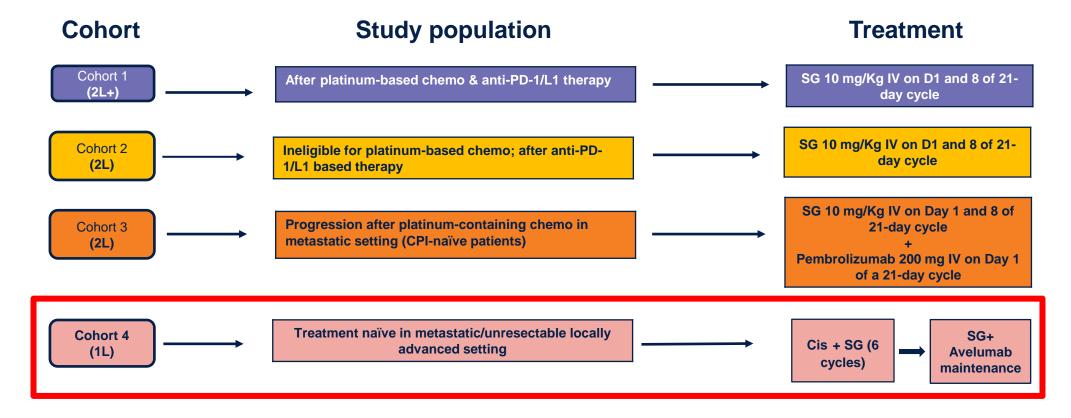
## Most Common Treatment-Related Adverse Events for All Patients (Cohort 3: Pembro + SG)



	Cohort 3 (N=41)
TRAEs Occurring in >20% of Patients, n (%)	All Grade
Diarrhea	29 (71)
Nausea	22 (54)
Vomiting	10 (24)
Neutropenia	18 (44)
Anemia	17 (41)
Leukopenia	12 (29)
Fatigue	12 (29)
Asthenia	16 (39)
Alopecia	14 (34)
Decreased appetite	11 (27)
Pruritus	9 (22)

- Treatment-related Gr 3-4 AEs in 59% of patients
- 16 (39%) patients had SG dose reduction due to TRAE
- No treatment-related death occurred
- 10 (25%) patients received steroids for iRAE<sup>a</sup>
  - Topical: 6 (15%) patients
  - Oral: 4 (10%) patients
    - diarrhea (2 patients)
    - pruritus (1 patient)
    - rash maculopapular (1 patient)
- 12 (29%) patients received G-CSF
- Gr ≥3 febrile neutropenia, 4 (10%) without prior G-CSF

### TROPHY U-01: Sacituzumab Govitecan Multi-Cohort Trial in mUC



## Cohorts 5 & 6 pending

#### **Key Inclusion Criteria:**

- PS ECOG 0-1
- C1-C3: Creatinine clearance ≥30 mL/min; C4: Creatinine clearance ≥50 mL/min
- Adequate organ function & stable brain metastases

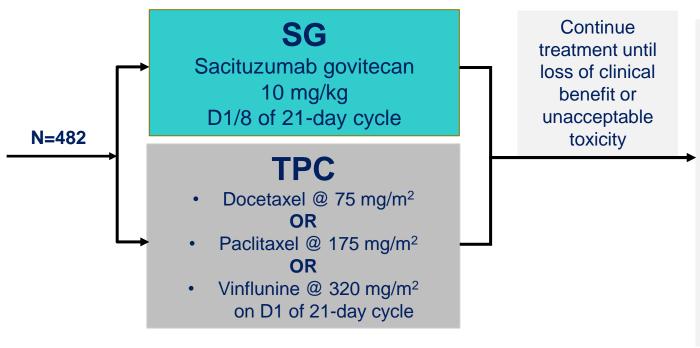
### **TROPiCS-04 Design**

### **Study Population**

- Locally advanced unresectable or mUC
- Upper/lower tract tumors
- Mixed histologic types are allowed if urothelial is predominant
- Progression after platinum-based <u>and</u> anti–PD-1/PD-L1 therapy

#### **OR**

 Platinum in neo/adj setting if progression within 12 months and subsequent CPI



#### **Endpoint (EP)**

#### **Primary EP:**

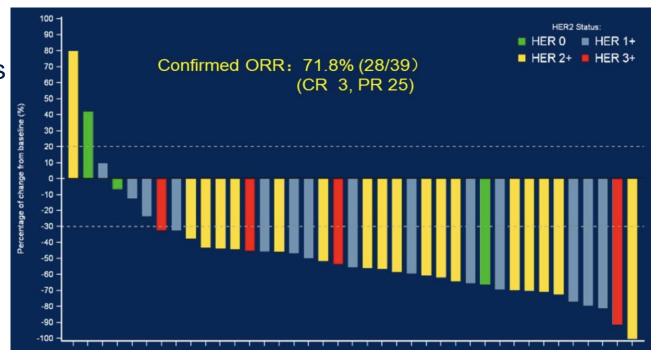
OS

#### **Secondary EP:**

- PFS by PI assessment using RECIST 1.1
- ORR, DOR, and CBR by PI assessment using RECIST 1.1
- EORTC QLQ C30 score and EuroQOL EQ-5D-5L QOL score

## Disitamab Vedotin with Anti-PD-1 (Toripalimab) in mUC

- Pts with locally advanced or metastatic UC
- 41 pts (25 treatment-naïve / 16 with 1+ lines of therapy)
  - 39 pts evaluable for response
- Confirmed ORR: 72% (28/39)
  - cORR in IHC 0 or 1+ pts: 9/17 (53%)
- Median PFS: 9.2 months
- Median OS: NR (86% 12-month OS)

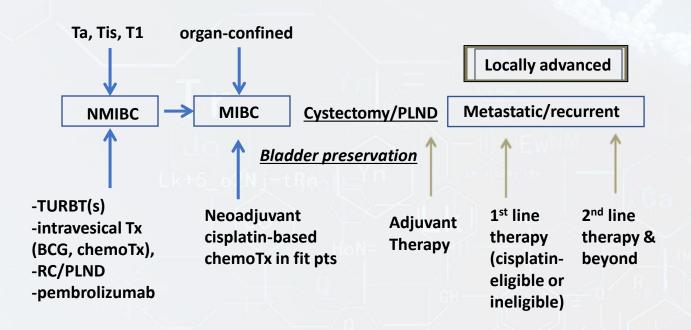


Promising results with DV trials in China led to a Breakthrough Therapy Designation by FDA Phase II & III registrational trials (post-platinum monotherapy & combo with anti-PD-1) pending

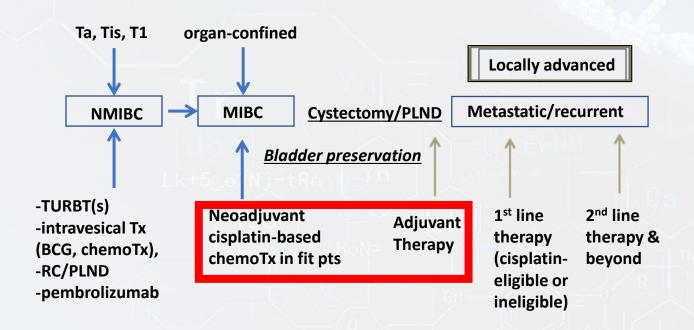
## Differences Among the ADC/IO Combinations

Regimen	Payload	N	Population	HER2	ORR
Enfortumab vedotin + Pembrolizumab	MMAE (tubulin)	43	Cis-ineligible, tx naive	All	73%
Disitimab vedotin + Toripalimab	MMAE (tubulin)	39	60% tx naive	All	72%
Trastuzumab deruxtecan + Nivolumab	Dxd (Topo I)	26	Progressed despite prior platinum	2+ or 3+	36%
Sacitizumab govitecan + Pembrolizumab	SN38 (Topo I)	41	Progressed despite prior platinum	All Slide Courtesy of	34% Matt Galsky and ASCO

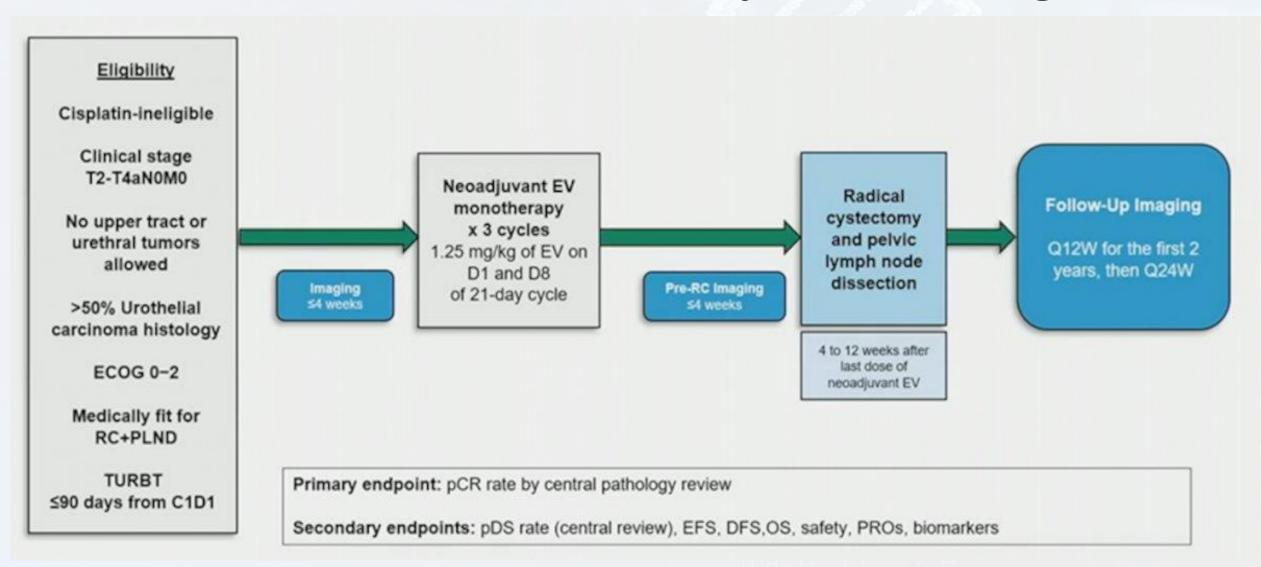
## Disease / treatment settings



## Disease / treatment settings



## EV-103 cohort H (neoadjuvant setting)



## EV-103 Cohort H: Rates of pCR and Pathologic Downstaging by Central Pathology Review

Pathologic Response, n (%) (95% CI)	Cohort H (N = 22)
Primary endpoint: pCR*	8 (36.4) (17.2-59.3)
Pathologic downstaging rate <sup>†</sup>	11 (50.0) (28.2-71.8)

Defined as: \*Absence of any viable tumor tissue (ypTO and NO). †Presence of ypTO, ypTis, ypTa, ypT1, and NO.

Antitumor activity observed with neoadjuvant enfortumab vedotin

### Summary

- Neoadjuvant enfortumab vedotin showed promising antitumor activity in patients with MIBC ineligible for cisplatin as shown by pCR of 36% and pDS of 50%
- All patients were able to undergo surgery and there was no delay in surgery due to neoadjuvant enfortumab vedotin
- The observed safety profile of neoadjuvant enfortumab vedotin monotherapy in patients with displatinineligible MIBC is consistent with the known AE profile of enfortumab vedotin in other settings
  - · Overall incidence of Grade 3 or higher treatment-related AEs was low
  - No new safety signals were identified
- This first disclosure of data supports the ongoing phase 2 and 3 programs evaluating enfortumab vedotin alone or in combination with pembrolizumab in MIBC (EV-103 Cohort L, KN-905, KN-B15)

AC Advance events, EV Exteriored valution, CN Keynolis, MISC Marcin invester bladder carrier, pCR pethological-complete response, pCR pethological disensing

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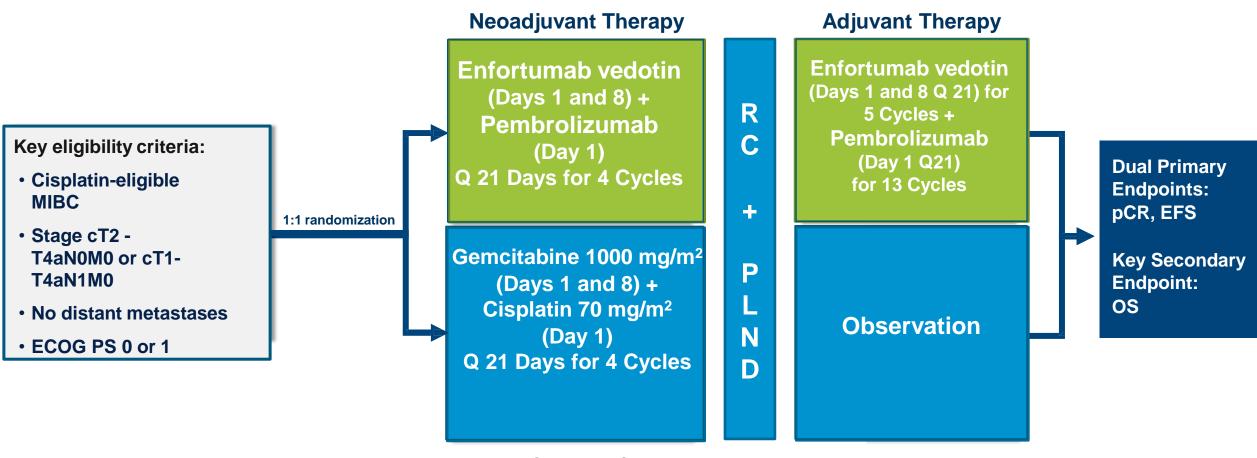
ASCO Genitourinary Cancers Symposium



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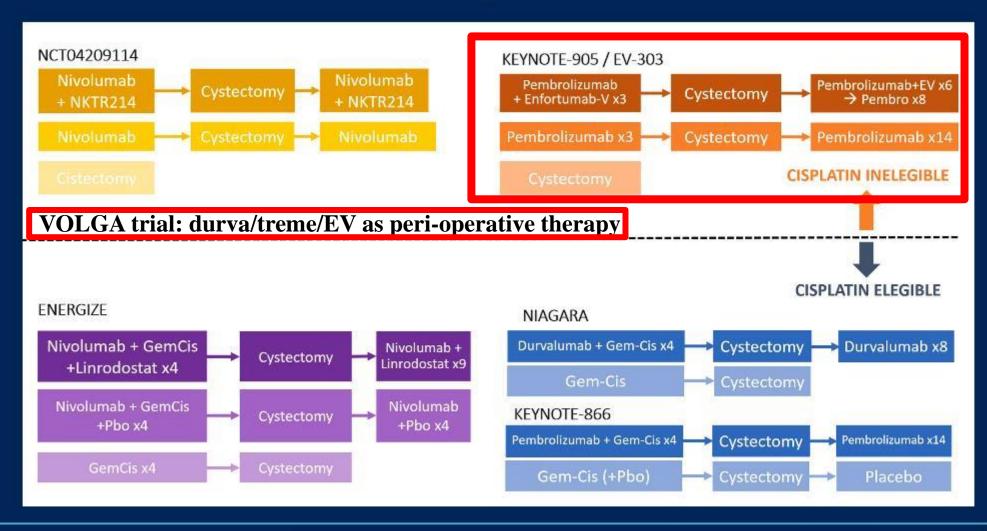


## Enfortumab Vedotin for Perioperative Treatment: KEYNOTE-B15 / EV-304 Study



RC = Radical Cystectomy; PLND = Pelvic lymph node dissection

### Phase III neoadjuvant IO trials



Presented By: Bishoy M. Faltas MD

Rey-C'ardenas et al. Cancer Treatment Reviews, 2021.





#### Rafee Talukder

#### **Key Eligibility**

- Muscle Invasive
   Bladder Cancer
   (cT2-T4aN0-N1M0
   or cT1-4aN1M0)
- Candidates for radical cystectomy
- Variant histology as defined in eligibility criteria
- Cisplatin-ineligible or refuses cisplatin

# Neoadjuvant trial for cisplatin-unfit pts with variant histology MIBC

**Accrual target: 18 pts** 

Sacituzumab Govitecan

10mg/kg on days 1 & 8 Every 21 days x 3 cycles

Maximal TURBT Radical
Cystectomy
& Pelvic
Lymph
Node
Dissection

### **Endpoints**

#### Primary:

Pathologic complete response rate

#### Secondary:

- Toxicity
- Two-year recurrence free survival
- Translational studies with tissue, blood, urine, stool

## Thank you © Patient & families!

Collaborators, sponsors, institutions, foundations, colleagues, research,

admin & clinical staff: TEAMS!

@PGrivasMDPhD

