MacroGenics®

Developing
Breakthrough Biologics,
Life-changing Medicines®

Corporate Update

November 5, 2024

Legal Notices

The information in this slide deck is current as of November 5, 2024, unless otherwise noted, and is qualified in its entirety by reference to MacroGenics' Annual, Quarterly and Current Reports filed with the SEC. MacroGenics undertakes no obligation to update any of the information herein.

Cautionary Note on Forward-Looking Statements

Any statements in this presentation about future expectations, plans and prospects for MacroGenics ("Company"), including statements about the Company's strategy, future operations, clinical development of and regulatory plans for the Company's therapeutic candidates, expected timing of the release of final safety and efficacy data, including mature median rPFS and other statements containing the words "subject to", "believe", "anticipate", "plan", "expect", "intend", "estimate", "potential," "project", "may", "will", "should", "would", "could", "can", the negatives thereof, variations thereon and similar expressions, or by discussions of strategy constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: risks that TZIELD, vobramitamab duocarmazine, lorigerlimab, ZYNYZ, MARGENZA or any other product candidate's revenue, expenses and costs may not be as expected, risks relating to TZIELD, vobramitamab duocarmazine, lorigerlimab, ZYNYZ, MARGENZA or any other product candidate's market acceptance, competition, reimbursement and regulatory actions; future data updates, especially timing and results of mature median radiographic progression-free survival, other efficacy and safety data with respect to vobramitamab duocarmazine; our ability to provide manufacturing services to our customers; the uncertainties inherent in the initiation and enrollment of future clinical trials; the availability of financing to fund the internal development of our product candidates; expectations of expanding ongoing clinical trials; availability and timing of data from ongoing clinical trials; expectations for the timing and steps required in the regulatory review process; expectations for regulatory approvals; expectations of future milestone payments; the impact of competitive products; our ability to enter into agreements with strategic partners and other matters that could affect the availability or commercial potential of the Company's product candidates; business, economic or political disruptions due to catastrophes or other events, including natural disasters, terrorist attacks, civil unrest and actual or threatened armed conflict, or public health crises; costs of litigation and the failure to successfully defend lawsuits and other claims against us; and other risks described in the Company's filings with the Securities and Exchange Commission. In addition, the forward-looking statements included in this press release represent the Company's views only as of the date hereof. The Company anticipates that subsequent events and developments will cause the Company's views to change. However, while the Company may elect to update these forward-looking statements at some point in the future, the Company specifically disclaims any obligation to do so, except as may be required by law. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date hereof.

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Investigational Agents

The safety and efficacy of investigational agents and/or investigational uses of approved products have not been established.

Unique Capabilities to Develop Next Generation Antibodies for Treating Cancer

Multiple Phase 2 Programs in Prostate Cancer

Multiple, potential data catalysts

Studies:

TMARACK

LORIKEET

HEAT[b]

Broad Capabilities for Drug Conjugates

Experience in combining novel targets with differentiated drug-linker technology

Proprietary Platforms for Multispecifics

Flexible platforms with clinical and/or partner validation

Proven R&D Track Record

Three approved products generated from our pipeline[a] fuel potential revenue

Margenza®

Tzield®

ZYNYZ®

Well Funded to Deliver on Plan

$200M Cash as of 9/30/24, plus projected and anticipated future payments[c], should support cash runway into 2026

(a) *TZIELD® was sold to Provention Bio (Sanofi) and is marketed by Sanofi; ZYNYZ® was licensed to, and is marketed by, Incyte.*
(b) *The "Help Elucidate & Attack Longitudinally" (HEAT) neo-adjuvant prostate cancer study is an investigator-sponsored trial.*
(c) *$200M Cash does not include $40M upfront payment anticipated from TerSera Therapeutics LLC related to sale of global rights to MARGENZA, less an $8.0 million amendment fee to be paid to Company's current commercialization partner.*

Deep and Differentiated Proprietary Pipeline with Retained Commercial Rights

Program (Target)	Potential Indication(s)	Modality/ Platform	Preclinical	Phase 1	Phase 2	Phase 3	Partner / Sponsor
Vobra Duo (B7-H3)	mCRPC TAMARACK Study	ADC					
Lorigerlimab (PD-1 × CTLA-4)	mCRPC *(+docetaxel)* ORIKEET Study	DART®					
Enoblituzumab (B7-H3)	Neo-adj. Prostate Cancer HEAT Study[a]	Fc-optimized mAb					Johns Hopkins Medicine
Tebotelimab[b] (PD-1 × LAG-3)	Solid Tumors & Heme Malignancies	DART					
MGC026 (B7-H3)	Multiple Solid Tumors	ADC					
MGC028 (ADAM9)	Multiple Solid Tumors	ADC	*IND submitted*				

The safety and efficacy of investigational agents and/or investigational uses of approved products have not been established. Pipeline reflects current status of each program or most recently completed phase of development.
(a) The "Help Elucidate & Attack Longitudinally" (HEAT) study is an investigator-sponsored trial.
(b) MacroGenics currently has no active/ongoing tebotelimab studies.

Partnered Programs: Potential Future Cash Flow & Platform Validation

Program (Target)	Potential Indication(s)	Modality/ Platform	Preclinical	Phase 1	Phase 2	Phase 3	Marketed	Partner
MARGENZA® (HER2)	HER2+ Metastatic Breast Cancer	Fc-optimized mAb						TerSera therapeutics (a)
ZYNYZ® (PD-1)	Merkel Cell Carcinoma	mAb						Incyte
	Squamous Cell Anal Carcinoma	mAb						
	Non-Small Cell Lung Cancer	mAb						
TZIELD® (CD3)	Stage 2 "At Risk" T1D	mAb						sanofi
	Stage 3 "Early Onset" T1D	mAb						
MGD024 (CD123 × CD3)	CD123+ Heme Malignancies	DART						Exclusive Option GILEAD
Bispecific (Undisclosed)	Multiple Solid Tumors	DART/TRIDENT®						GILEAD

The safety and efficacy of investigational agents and/or investigational uses of approved products have not been established. Pipeline reflects current status of each program or most recently completed phase of development.

(a) MARGENZA global rights to be sold to TerSera Therapeutics LLC, pursuant to which TerSera will pay MacroGenics $40M at closing; MacroGenics may receive additional sales milestone payments of up to aggregate of $35M. Transaction expected to close 4Q2024, subject to customary closing conditions. MacroGenics expects to pay $8M amendment fee to its current commercialization partner in 4Q2024. MacroGenics will manufacture MARGENZA drug substance on behalf of TerSera going forward.

Multiple Opportunities to Impact Treatment Paradigm in Prostate Cancer

Prostate cancer remains 2nd leading cause of cancer death in U.S. (34.7k deaths in 2023[(a)])

Vobra Duo
(ADC)

TIMARACK

- Updated clinical data, incl. 6-mo landmark rPFS rate
- Awaiting final, mature median rPFS
  (expected in hand no later than early 2025)

Lorigerlimab
(Bispecific Checkpoint)

LORIKEET

- Randomized Phase 2 in mCRPC
- Trial update expected in 1H25

Enoblituzumab
(Fc-optimized mAb)

HEAT

- Phase 2 IST in neoadjuvant PC
- Initiated 1Q24

Multiple potential first-in-class programs

Incorporate cutting-edge platform technologies

Complementary MoAs

Combine with SoC and other internal assets

(a) Source: American Cancer Society (https://www.cancer.org/cancer/types/prostate-cancer/about/key-statistics.html)

Antibody-Drug Conjugate Product Candidates

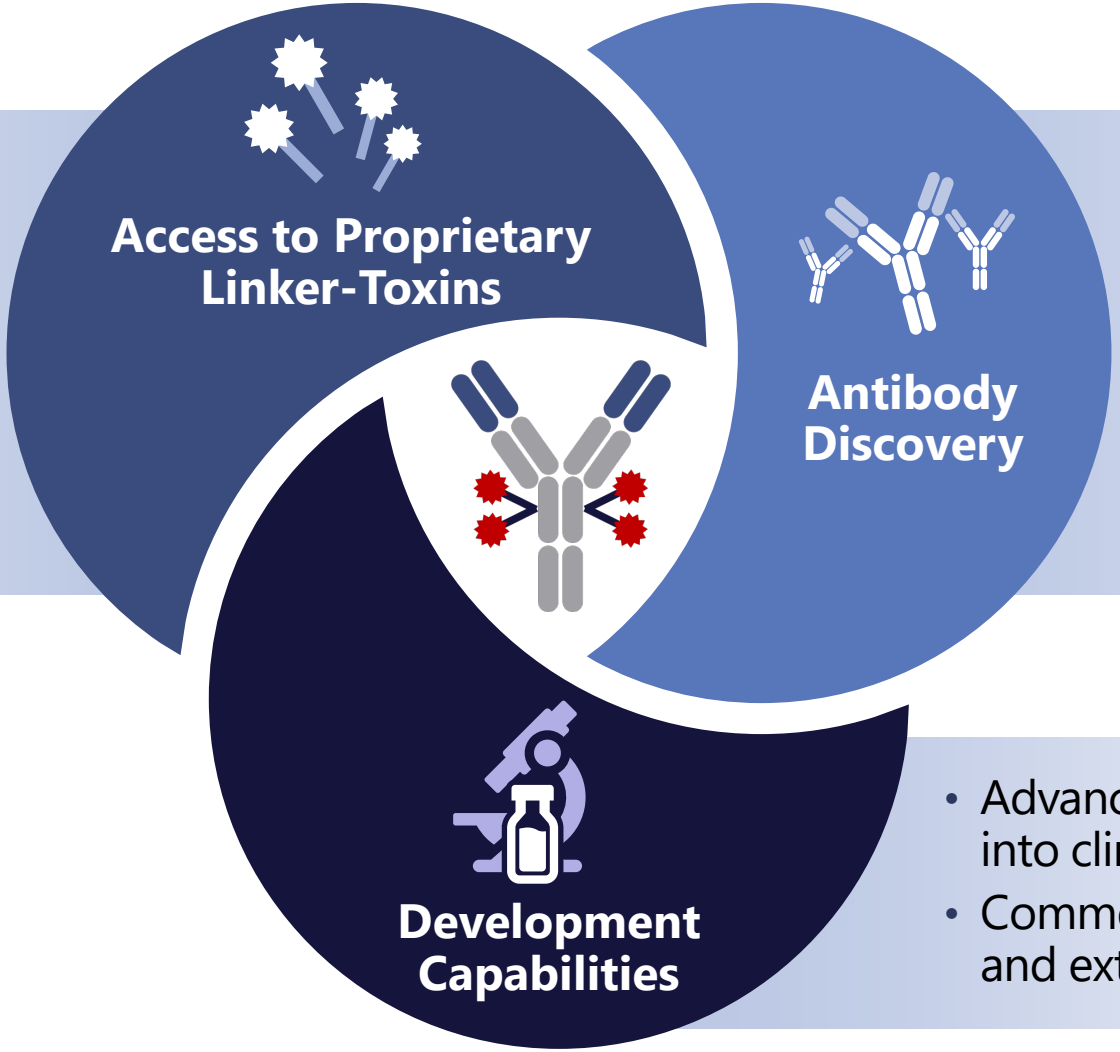
Uniquely Positioned to Develop Best-in-Class Antibody-Drug Conjugates

- Multiple technology partnerships
- Access to multiple validated classes of payloads and linker technologies

Synaffix connect to cure A Lonza Company

byondis

(Up to seven programs)

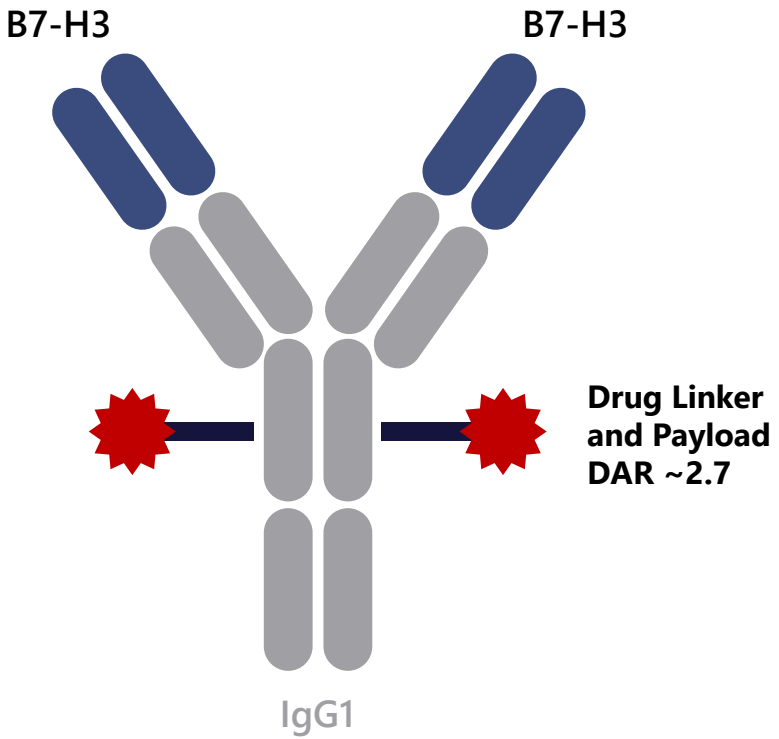


- First-in-class targets
- 20+ Years of antibody engineering expertise

- Advancing multiple ADC candidates into clinic
- Commercial-scale mAb manufacturing and external ADC supply chain

Vobra Duo: Antibody-Drug Conjugate with Duocarmycin-based Linker Payload

Updated TAMARACK study data at ESMO (poster); awaiting mature median rPFS



Function/ MoA	• ADC that delivers potent duocarmycin payload to dividing and non-dividing B7-H3-expressing cells • Cleavable peptide linker facilitates bystander effect • Not subject to multi-drug resistance (MDR)
Clinical Results	• Updated TAMARACK Phase 2 safety and preliminary efficacy data presented at ESMO (see slides that follow) • mCRPC study participants are no longer being dosed in study
Anticipated Milestones	• Expect to have TAMARACK mature median rPFS in hand no later than early 2025

Duocarmycin payload and cleavable peptide linker technology was licensed from Byondis, B.V., The Netherlands. mCRPC = metastatic castration-resistant prostate cancer.
Vobramitamab duocarmazine (vobra duo, previously known as MGC018) is investigational and has not yet been approved for marketing by any regulatory authority.

Vobra Duo: mCRPC Phase 2 Study Design

Key Eligibility Criteria:

- mCRPC
- One prior ARAT
- Up to one prior docetaxel-containing regimen[(a)]
- ≤ 3 Prior lines of therapy for mCRPC

Stratification Factors:

- Visceral disease (yes vs. no)
- Prior taxane (yes vs. no)
- Region (US/Canada vs. other)

R
1:1

Study Participants Enrolled N=91

Experimental Arm A
Vobramitamab duocarmazine
2.0 mg/kg Q4W

Study Participants Enrolled N=90

Experimental Arm B
Vobramitamab duocarmazine
2.7 mg/kg Q4W

Primary Endpoint:
rPFS

Key Secondary Endpoints:
AEs, PSA outcomes, ORR, DoR, SSEs, PK, ADA, nAb

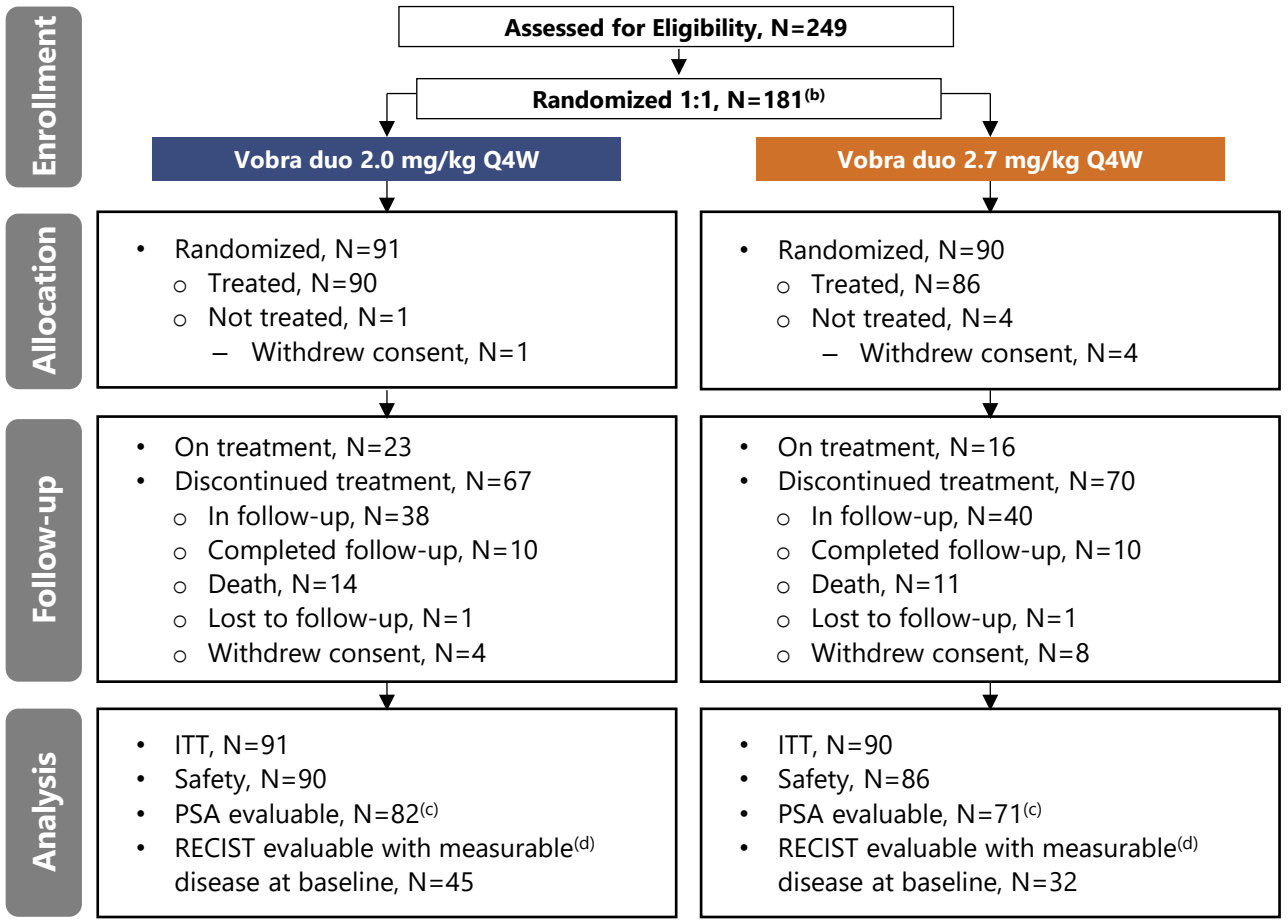
(a) Participants who received an additional taxane or second ARAT (androgen receptor axis-targeted agent [abiraterone, enzalutamide or apalutamide]) for <60 days as bridging therapy while awaiting lutetium-177 vipivotide tetraxetan are also eligible. Other prior chemotherapy for prostate cancer is not allowed.

mCRPC=metastatic castration-resistant prostate cancer; ORR=objective response rate; PSA=prostate-specific antigen; Q4W=every 4 weeks; R=randomize; rPFS=radiographic progression-free survival.

Study Participants Demographics and Flow Diagram

TAMARACK

Parameter for ITT Population (N=181[a])	Vobra duo 2.0 mg/kg Q4W N=91	Vobra duo 2.7 mg/kg Q4W N=90
Median (range) age, years	71 (46-89)	69 (35-86)
ECOG PS, n (%)		
0	42 (46.2)	51 (56.7)
1	48 (52.7)	37 (41.1)
2	1 (1.1)	2 (2.2)
Disease status at first diagnosis, n (%)		
Local resectable	28 (30.8)	37 (41.1)
Locally advanced unresectable	12 (13.2)	9 (10.0)
Metastatic	51 (56.0)	44 (48.9)
Type of disease progression at study entry, n (%)		
Radiographic progression of measurable disease	43 (47.3)	31 (34.4)
Radiographic progression of bone disease (in >2 new bone lesions)	33 (36.3)	41 (45.6)
PSA progression only	24 (26.4)	25 (27.8)
PSA progression with any other type of progression	39 (42.9)	32 (35.6)
Study participants with visceral disease, n (%)	15 (16.5)	15 (16.7)
Study participants with prior taxane, n (%)	48 (52.7)	49 (54.4)
Study participants with prior PARP, n (%)	6 (6.6)	8 (8.9)
Number of prior ARAT, n (%)		
1	82 (90.1)	84 (93.3)
>1	9 (9.9)	6 (6.7)
Baseline PSA		
n	89	85
Mean (standard deviation), ng/mL	180.5 (542.60)	182.6 (433.06)
Median (range), ng/mL	26.4 (0.8-3447.0)	24.7 (0.2-2778.0)
PSA ≥2 ng/mL, n (%)	83 (91.2)	74 (82.2)



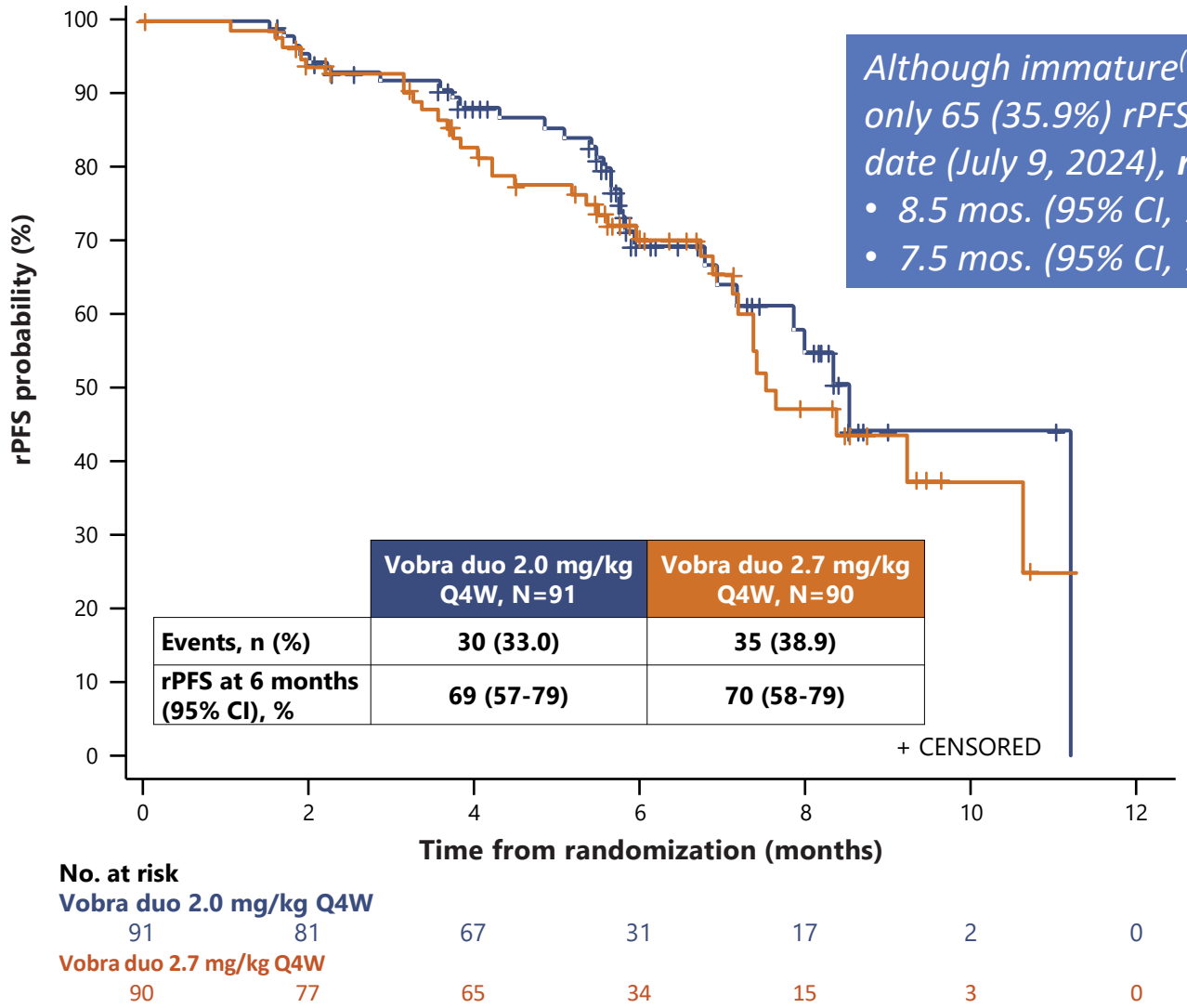
(a) All randomized study participants, including the study participants not treated.
(b) Excludes 3 study participants not dosed with vobra duo who were originally assigned to control arm on earlier version of protocol. These study participants are excluded from all analyses in this presentation.
(c) PSA-evaluable population includes study participants who received at least 1 dose of study treatment, had baseline PSA ≥2 ng/mL, and ≥1 postbaseline PSA measurement.
(d) All study participants who received ≥1 dose of vobra duo, with baseline and postbaseline target lesion measurements (by RECIST v1.1).
ITT=intent-to-treat; PARP=poly (ADP-ribose) polymerase.

Presented at ESMO 2024; Data Cut-off: July 9, 2024

rPFS per Investigator by PCWG3

TMARACK

ITT population, N=181



	Vobra duo 2.0 mg/kg Q4W, N=91	Vobra duo 2.7 mg/kg Q4W, N=90
Events, n (%)	30 (33.0)	35 (38.9)
rPFS at 6 months (95% CI), %	69 (57-79)	70 (58-79)

*Although immature[(a)] and subject to change, with only 65 (35.9%) rPFS events as of data cut-off date (July 9, 2024), **median rPFS** was:*

- *8.5 mos. (95% CI, 7.2-11.2) on 2.0 mg/kg arm*
- *7.5 mos. (95% CI, 7.2-10.6) on 2.7 mg/kg arm*

(a) Company anticipates having final median rPFS no later than early 2025 based on collection of events no later than January 2025 (as per study design).
PCWG3=Prostate Cancer Working Group 3

Presented at ESMO 2024; Data Cut-off: July 9, 2024

Tumor and PSA Responses

TAMARACK

	Vobra duo 2.0 mg/kg Q4W	Vobra duo 2.7 mg/kg Q4W
RECIST response-evaluable population w/baseline measurable disease[a]	**N=45**	**N=32**
Best overall response (confirmed), n (%)		
CR	0	1 (3.1)
PR	9 (20.0)	12 (37.5)
SD	30 (66.7)	15 (46.9)
PD	5 (11.1)	2 (6.3)
NE	1 (2.2)	2 (6.3)
Confirmed ORR (CR + PR), n (%)	9 (20.0)	13 (40.6)
Confirmed + unconfirmed ORR, n (%)	12 (26.7)	15 (46.9)
Median (range) DOR of confirmed RECIST responders, months [n]	4.9 (1.94-6.47) [9]	NE (1.54-9.46) [13]
PSA response-evaluable population[b]	**N=82**	**N=71**
PSA50 response (confirmed), n (%)	37 (45.1)	28 (39.4)
PSA50 response (confirmed + unconfirmed), n (%)	41 (50.0)	37 (52.1)
Median (range) DOR of confirmed PSA50 responders, months [n]	NE (0.95-9.23) [37]	NE (0.95-9.49) [28]

(a) All study participants who received ≥1 dose of vobra duo, with baseline and postbaseline target lesion measurements (by RECIST v1.1).
(b) All study participants who received ≥1 dose of vobra duo, with a baseline PSA ≥2 ng/mL and ≥1 postbaseline PSA measurement.
NE=not evaluable; SD=stable disease.

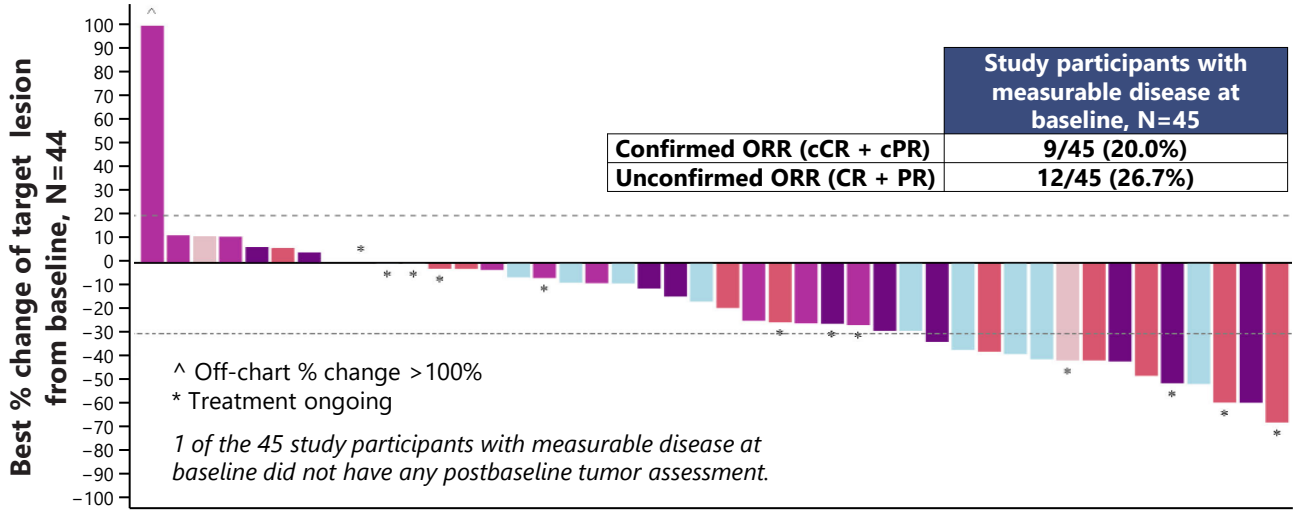
Presented at ESMO 2024; Data Cut-off: July 9, 2024

Best % Change in Target Lesions From Baseline per Investigator

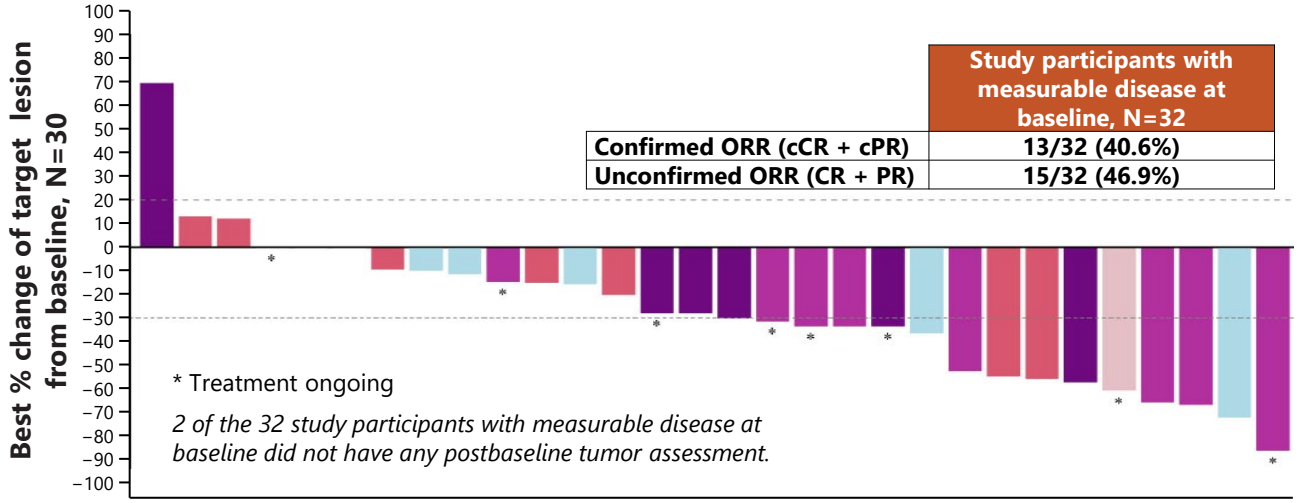
TAMARACK

RECIST response-evaluable population with measurable disease, N=77[(a)]

Vobra Duo 2.0 mg/kg Q4W



Vobra Duo 2.7 mg/kg Q4W



ORRs across both dosing cohorts indicate robust anti-tumor activity

(a) All study participants who received ≥1 dose of vobra duo, with baseline and postbaseline target lesion measurements (by RECIST v1.1). cCR=confirmed complete response; CR=complete response; cPR, confirmed partial response; PR, partial response.

Presented at ESMO 2024; Data Cut-off: July 9, 2024

Treatment Exposure and Reason for Treatment Discontinuation

TAMARACK

	TAMARACK vobra duo 2.0 mg/kg Q4W	TAMARACK vobra duo 2.7 mg/kg Q4W	CP-MGC018-01 vobra duo 3.0 mg/kg Q3W[(b)]
Treated with any study treatment, n	90	86	41
Treatment discontinued, n (%)	67 (74.4)	70 (81.4)	41 (100)
Adverse event	22 (24.4)	31 (36.0)	15 (36.6)
Death	2 (2.2)	2 (2.3)	0
Physician decision	5 (5.6)	2 (2.3)	0
Progressive disease	28 (31.1)	28 (32.6)	24 (58.5)
Subject decision/withdrew consent	10 (11.1)	7 (8.1)	2 (4.9)
Treatment ongoing, n (%)	23 (25.6)	16 (18.6)	0
Mean (standard deviation) number of doses	6.1 (2.35)	5.5 (2.39)	5.0 (2.98)
Median (range) number of doses	6 (1-11)	6 (1-12)	4.0 (1.0-15.0)
Median (range), duration study treatment, months	6.4 (1.0-11.1)	6.7 (1.0-12.9)	4.2 (2.1-15.0)
Median (range) dose intensity,[(a)] %	92.6 (64.2-106.1)	81.7 (40.5-104.3)	66.4 (26.7-102.9)

Results indicate improvement in duration of therapy for vobra duo in TAMARACK compared to that of Phase 1 mCRPC expansion cohort (i.e., median of 6 vs. 4 doses, respectively)

*(a) Total dose intensity is calculated as total dose administered / total planned dose × 100. Total planned dose = assigned dose at randomization * baseline weight * [(last dose date – first dose date) / 28 + 1] rounded to nearest whole number.*

(b) Expansion cohort data from Phase 1 study (NCT03729596) of vobra duo in men with mCRPC who had progressed after 1 prior line of chemotherapy for metastatic disease and no more than 2 prior lines of antihormonal therapy; participants were required to have PSA ≥2 ng/mL and documented progressive disease per PCWG2 criteria; data as of final cut-off date of August 3, 2023.

Presented at ESMO 2024; Data Cut-off: July 9, 2024

Overall Summary of TEAEs on TAMARACK and CP-MGC018-01

TAMARACK

AEs, n (%)	Vobra duo 2.0 mg/kg Q4W N=90	Vobra duo 2.7 mg/kg Q4W N=86	CP-MGC018-01 3.0 mg/kg Q3W[(b)] N=41
Any TEAE	89 (98.9)	86 (100)	41 (100)
Treatment-related AEs[(a)]	87 (96.7)	84 (97.7)	41 (100)
Any grade ≥3 TEAE	59 (65.6)	54 (62.8)	33 (80.5)
Grade ≥3 treatment-related AE[(a)]	42 (46.7)	45 (52.3)	32 (78.0)
Any SAE	34 (37.8)	38 (44.2)	23 (56.1)
Treatment-related SAEs[(a)]	23 (25.6)	24 (27.9)	19 (46.3)
Fatal treatment-related AEs	5 (5.6)	3 (3.5)	2 (4.9)
TEAEs resulting in vobra duo discontinuation	23 (25.6)	33 (38.4)	15 (36.6)
TEAEs resulting in vobra duo dose reductions	45 (50.0)	47 (54.7)	28 (68.3)
TEAEs resulting in vobra duo interruption	46 (51.1)	51 (59.3)	28 (68.3)

Overall improvement in safety and tolerability in TAMARACK compared to that of Phase 1 mCRPC expansion cohort

(a) Includes events with causality assessments of "possible," "probable," or "definite," per investigator.

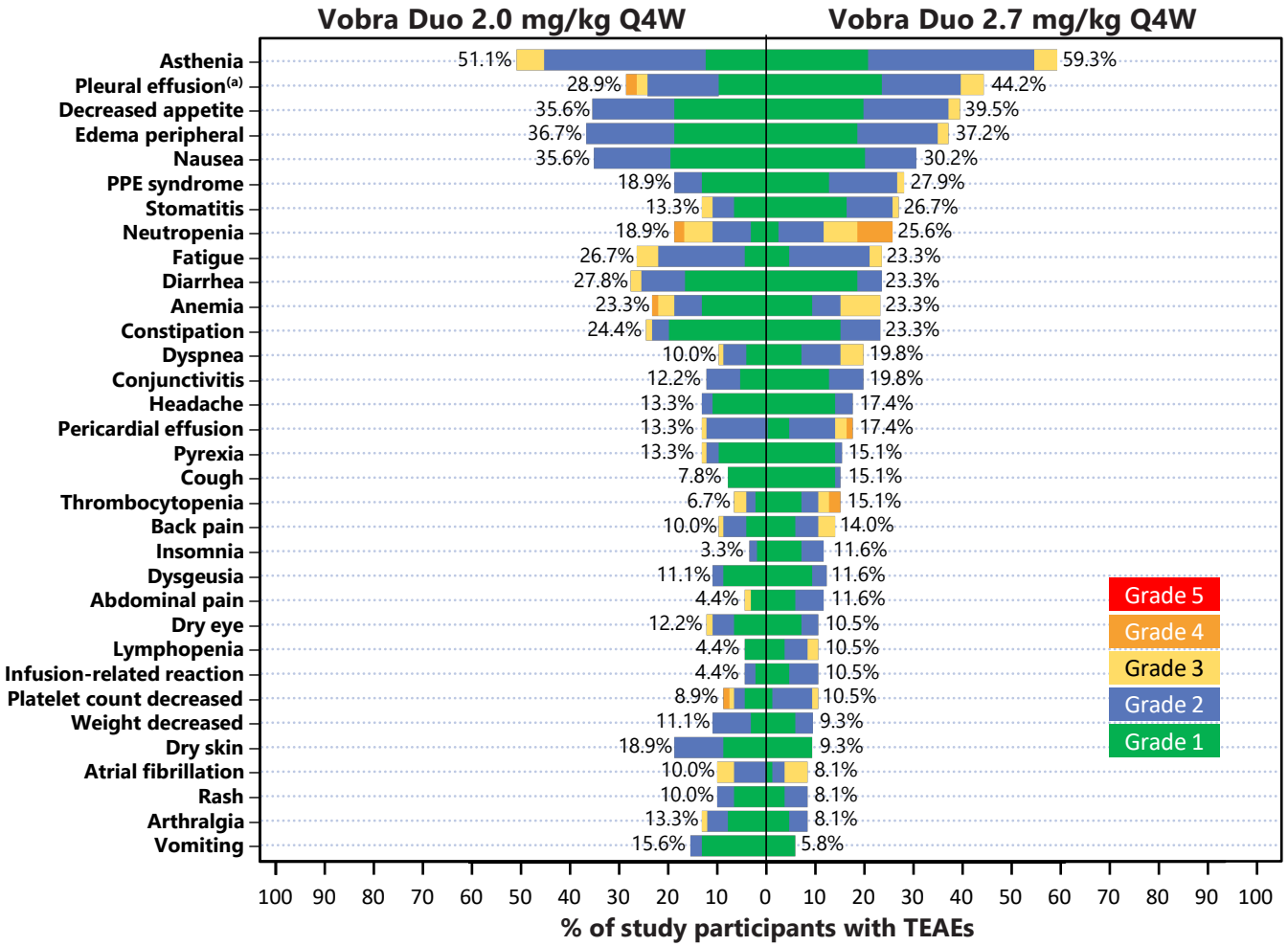
(b) Expansion cohort data from Phase 1 study (NCT03729596) of vobra duo in men with mCRPC who had progressed after 1 prior line of chemotherapy for metastatic disease and no more than 2 prior lines of antihormonal therapy; participants were required to have PSA ≥2 ng/mL and documented progressive disease per PCWG2 criteria; data as of final cut-off date of August 3, 2023.

SAE=serious adverse event.

Presented at ESMO 2024; Data Cut-off: July 9, 2024

TEAEs Reported in ≥10% of Study Participants in Either Arm

(Safety population, N=176)



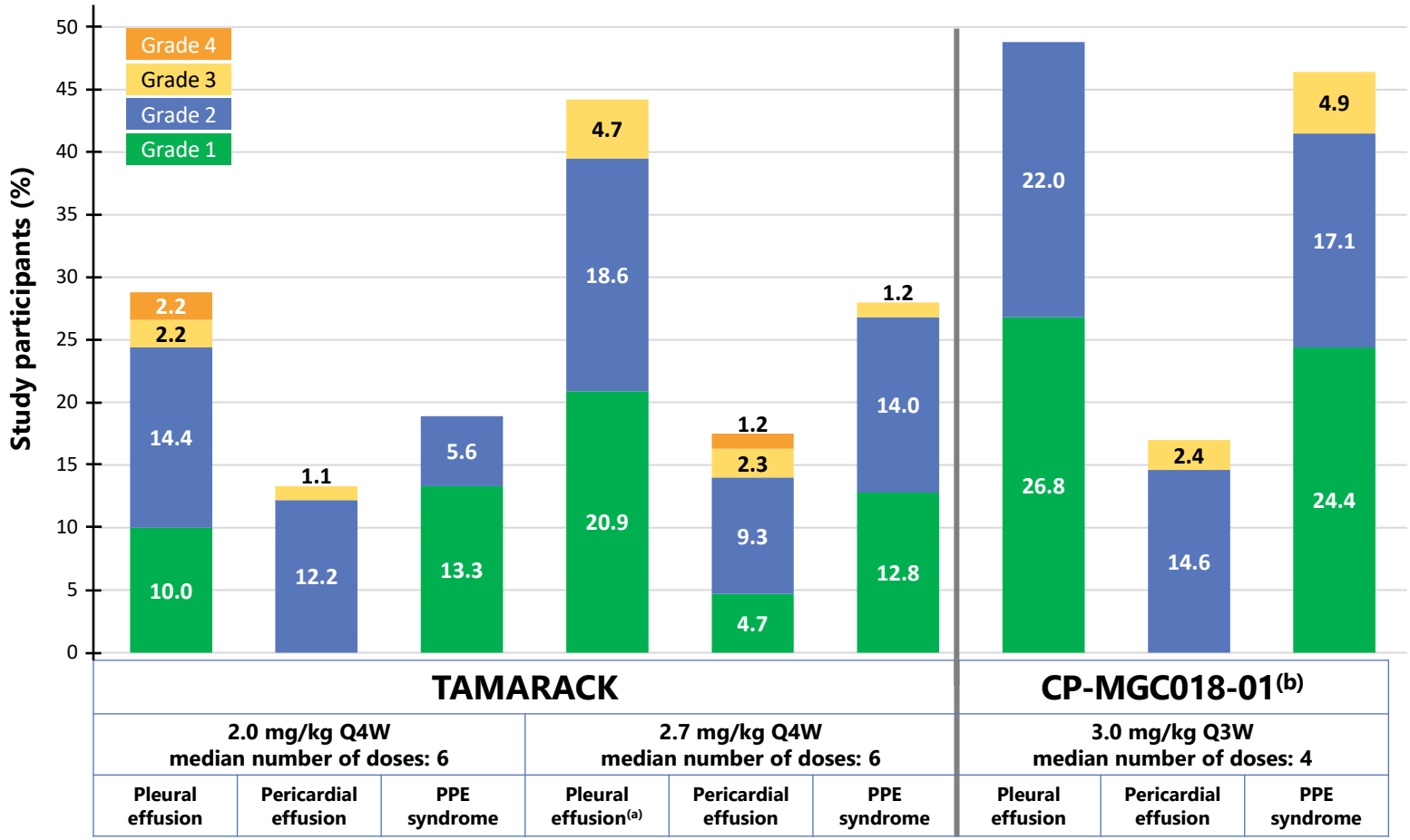
(a) *Includes one treatment-related pleural effusion event reported to be grade 3 but with a fatal outcome; site query to correct the discrepancy is pending.*

Presented at ESMO 2024; Data Cut-off: July 9, 2024

Select TEAEs by Grade and Dose in TAMARACK and CP-MGC018-01

TAMARACK

TAMARACK safety population, N=176; CP-MGC018-01 safety population, N=41



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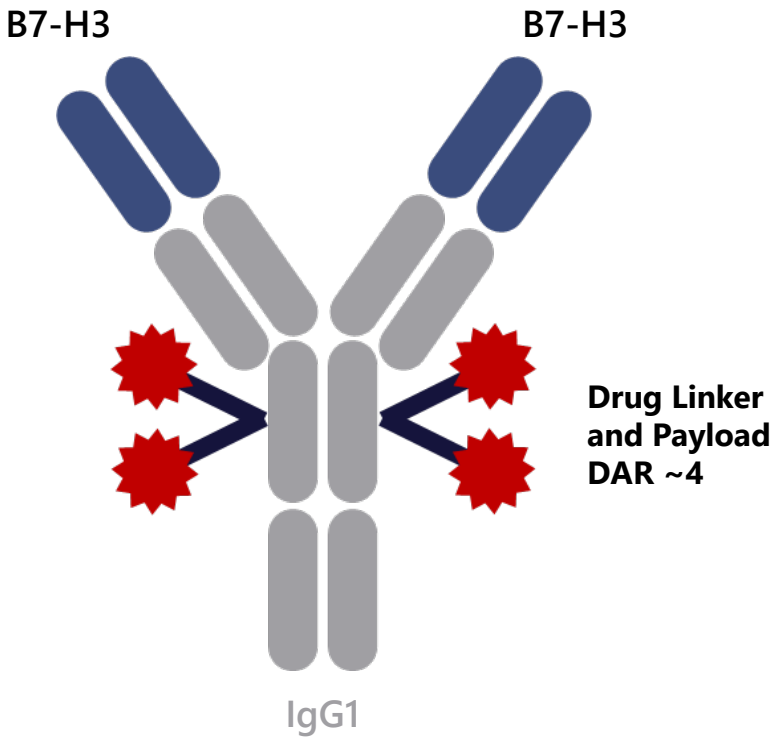
Presented at ESMO 2024; Data Cut-off: July 9, 2024

MGC026: Complementary Program Employing Proprietary TOP1i Linker Payload



Function/ MoA	• B7-H3 overexpressed in multiple tumor types and correlates with poor prognosis • Employs Synaffix's proprietary ADC platform – GlycoConnect™ site-specific Fc conjugation with protease cleavable link for enhanced efficacy and safety – Hydraspace™ highly-polar spacer technology for increased stability and therapeutic index – SYNtecan E™ proprietary linker-payload for ADCs (DAR ~4) (exatecan is active catabolite)
Rationale / Positioning	• Complementary approach to vobra duo for targeting B7-H3 • Potential differentiation of exatecan vs. deruxtecan (DXd)[(a)] – 2-5x higher potency – Less susceptible to efflux/multi-drug resistance (MDR) – Exhibits superior cell permeability & bystander effect
Status	• Phase 1 dose escalation enrolling

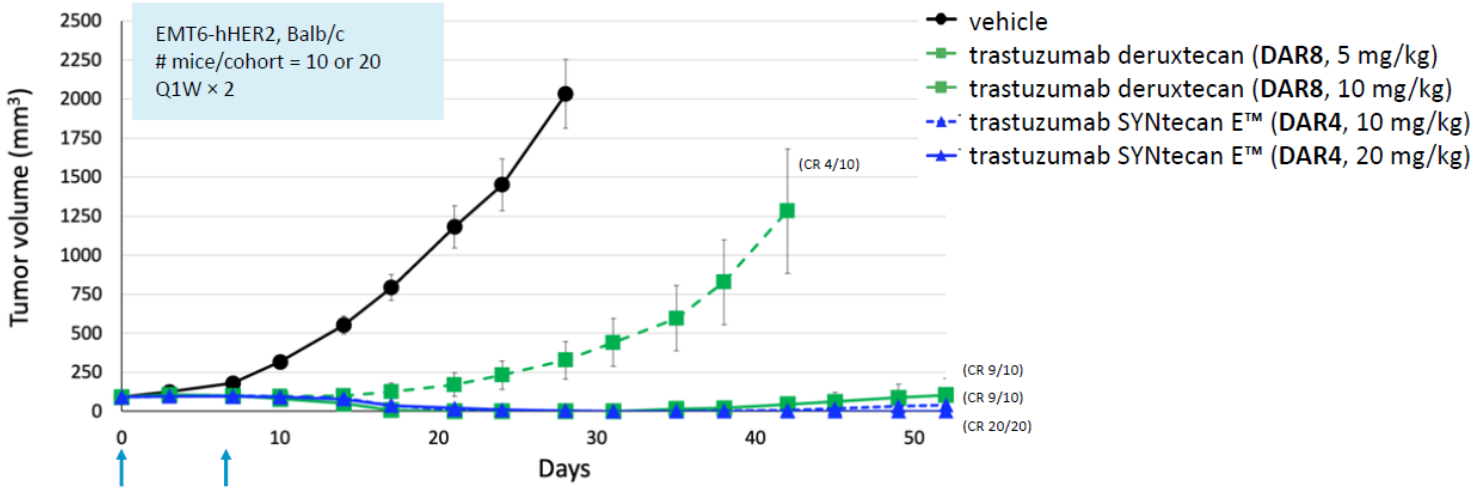
(a) Rowinsky, Eric K. "14 Preclinical and Clinical Development of Exatecan." Camptothecins in Cancer Therapy (2005); Khera, Eshita, et al. Molecular Cancer Therapeutics 21.2 (2022): 310-321; Ogitani, et al. Cancer Sci 107 (2016) 1039-1046; Ogitani, et al. Clin Cancer Res, 22(20) October 15, 2016; and Weng, W, et al. AACR Cancer Discovery, April 2023.

MGC026 is investigational and has not yet been approved for marketing by any regulatory authority

Potential to Differentiate from Other TOP1i ADC Programs

	Exatecan	SN-38	Deruxtecan
Potency[(a)]	Sub-nM	3-10x Less Potent	2-5x Less Potent
Linker	HydraSpace™ & Val-Ala Protease-Cleavable	CL2A pH sensitive	GGFG Protease Cleavable
Conjugation	Site-Specific at Glycan (N297)	Native Cysteines	Native Cysteines
Less Sensitivity to Efflux/MDR Avoidance[(a)]	+++	++	+

SYNtecan E ADC (DAR4) Outperforms Trastuzumab Deruxtecan (DAR8) in Syngeneic Mice[(b)]



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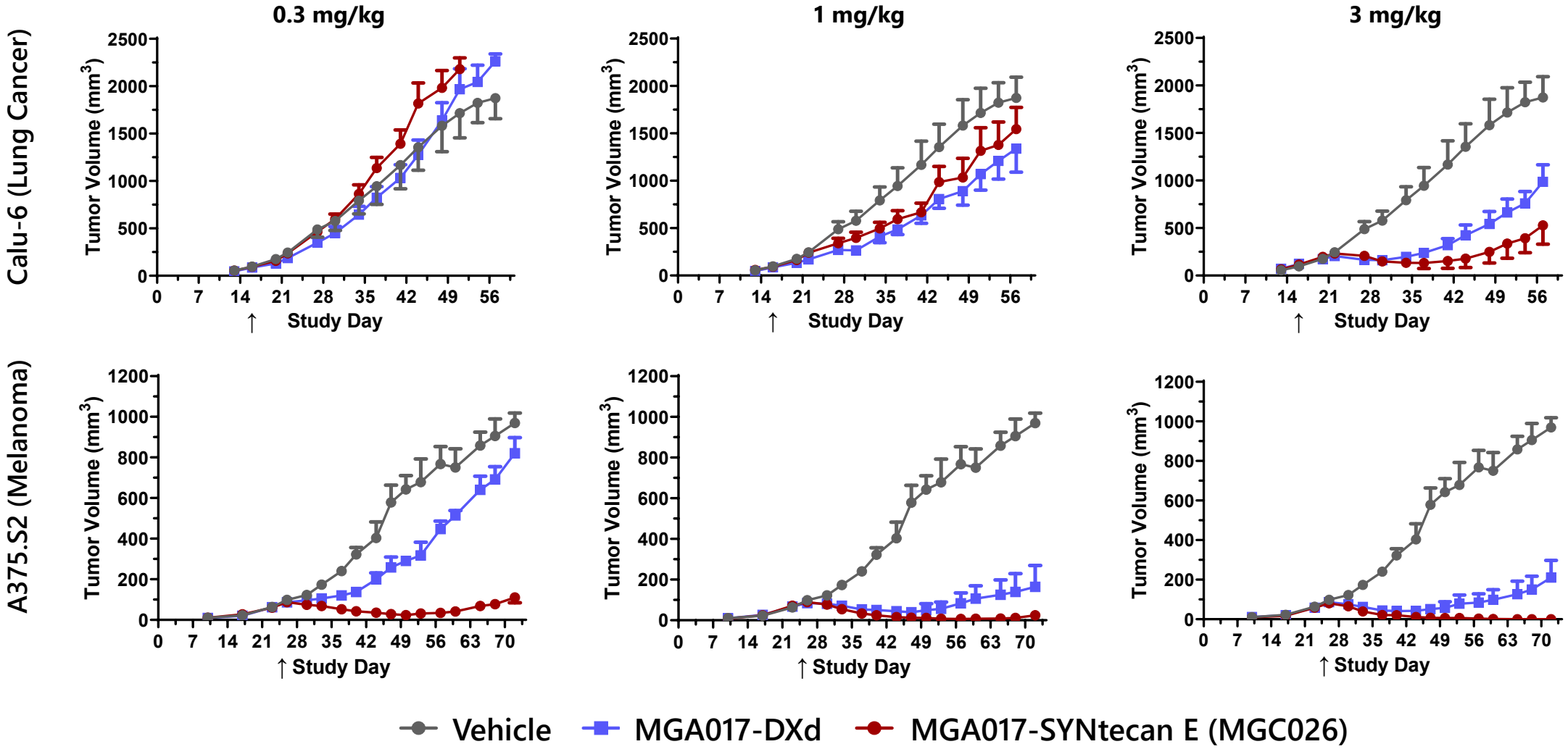
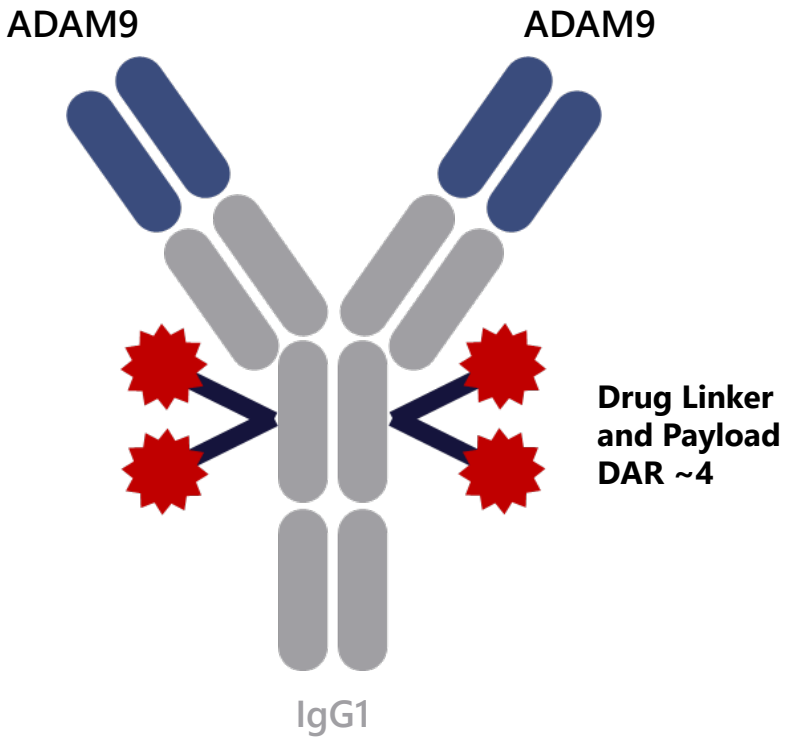
(b) *Data generated by Synaffix; presented at World ADC 2023.*

MGC026: SYNtecan ADC Exhibits Favorable Profile Compared to DXd-based ADC

In vivo efficacy in preclinical CDx models



MGC028: Next-Generation, Preclinical ADAM9 ADC



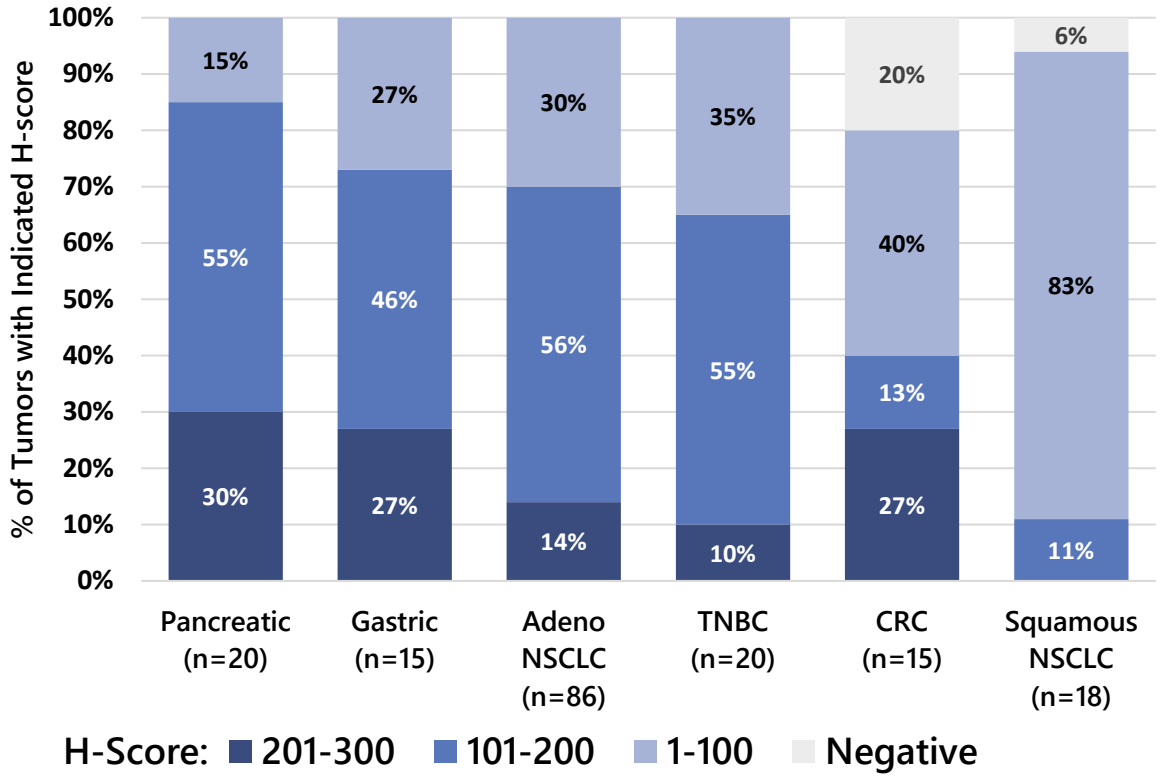
Function/ MoA	• ADAM9 plays role in tumorigenesis and cancer progression and is over-expressed in multiple cancers • Employs Synaffix's proprietary ADC platform – GlycoConnect™ site-specific Fc conjugation with protease cleavable link for enhanced efficacy and safety – Hydraspace™ highly-polar spacer technology for increased stability and therapeutic index – SYNtecan E™ proprietary linker-payload for ADCs (DAR ~4) (exatecan is active catabolite)
Rationale / Positioning	• In cynomolgus pilot tox, no observed ocular toxicities, which are typically seen with maytansinoid payloads – Observed in earlier cyno tox with maytansinoid-based ADC[(a)]
Status	• IND submitted October 2024 (pending clearance by FDA)

(a) "Preclinical Evaluation of IMGC936, a Next-Generation Maytansinoid-based Antibody–drug Conjugate Targeting ADAM9-expressing Tumors," Mol Cancer Ther 2022; 21:1047–1059.

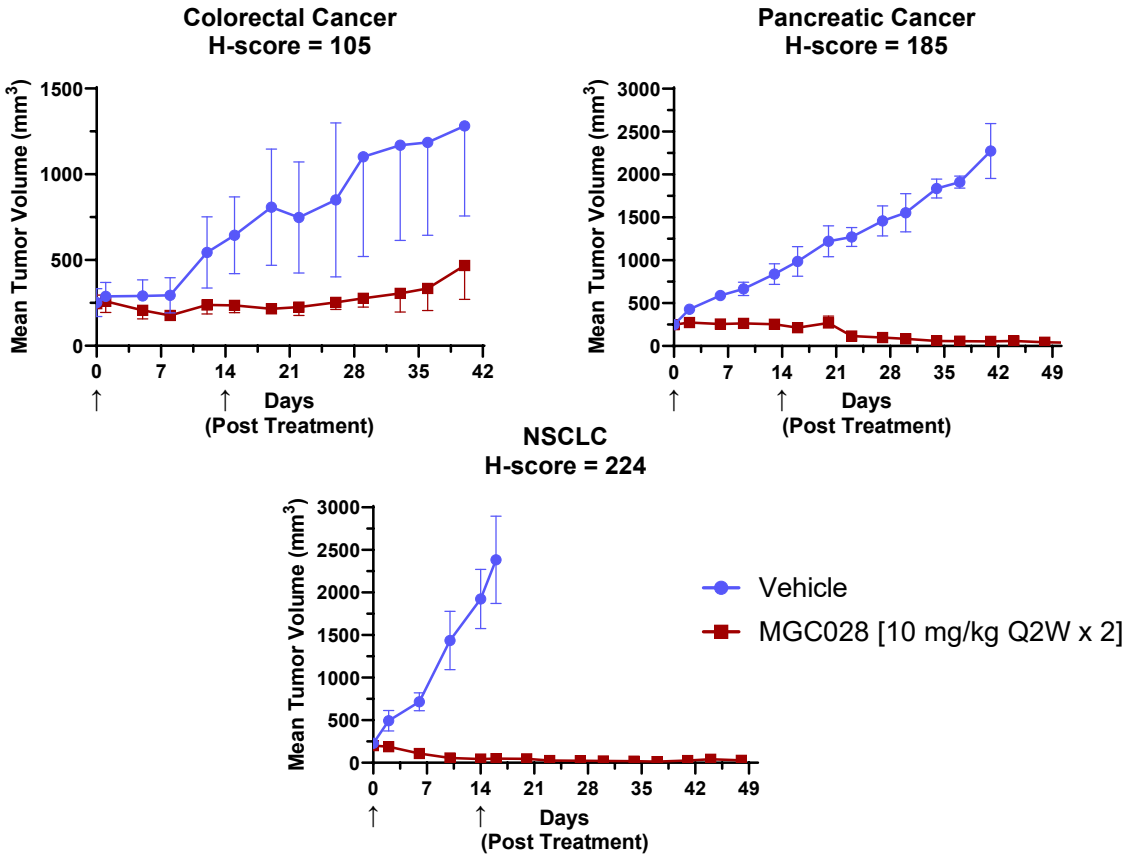
MGC028: Promising Product Profile Based on Preclinical Data

Supports broad clinical development opportunity across multiple solid tumors

Broad Range of Indications Which May be More Susceptible to TOP1i-Based Payload

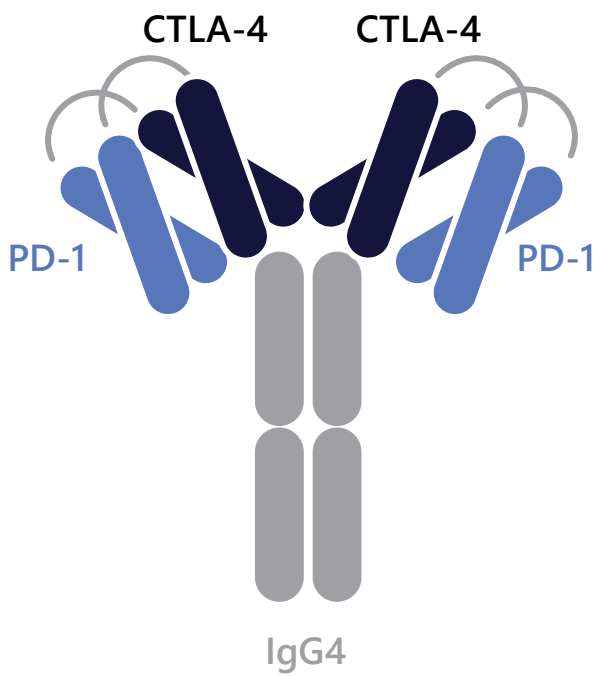


Potent Activity Observed Across PDX Models with Range of ADAM9 Expression



DART Product Candidates

Lorigerlimab (PD-1 × CTLA-4): DART Molecule w/Two Validated Checkpoint Targets



Function/ MoA	• Simultaneous and/or independent blockade of two validated checkpoint inhibitor molecules
Clinical Results	• Ph. 1 dose expansion results presented at ASCO-GU 2023: – Manageable safety profile in advanced solid tumors (n=127 patients at dose of 6.0 mg/kg Q3W) – Preliminary evidence of durable anti-tumor activity in mCRPC population refractory to chemo and ARAT (confirmed ORR = 25.7%, confirmed PSA50 response rate = 28.6%)
Program Activities	• Enrolling randomized LORIKEET Phase 2 study in mCRPC – Enrollment completion expected in late 2024 or early 2025

ARAT=androgen receptor axis-targeted agent (abiraterone, enzalutamide or apalutamide)

Lorigerlimab (formerly MGD019) is investigational and has not yet been approved for marketing by any regulatory authority

ASCO-GU 2023 (Luke, et al., #155); 12/12/22 data cut-off

Lorigerlimab: Durable Anti-tumor Activity Shown in Refractory mCRPC Population

42 Patients with mCRPC received lorigerlimab @ 6 mg/kg Q3W during dose expansion phase

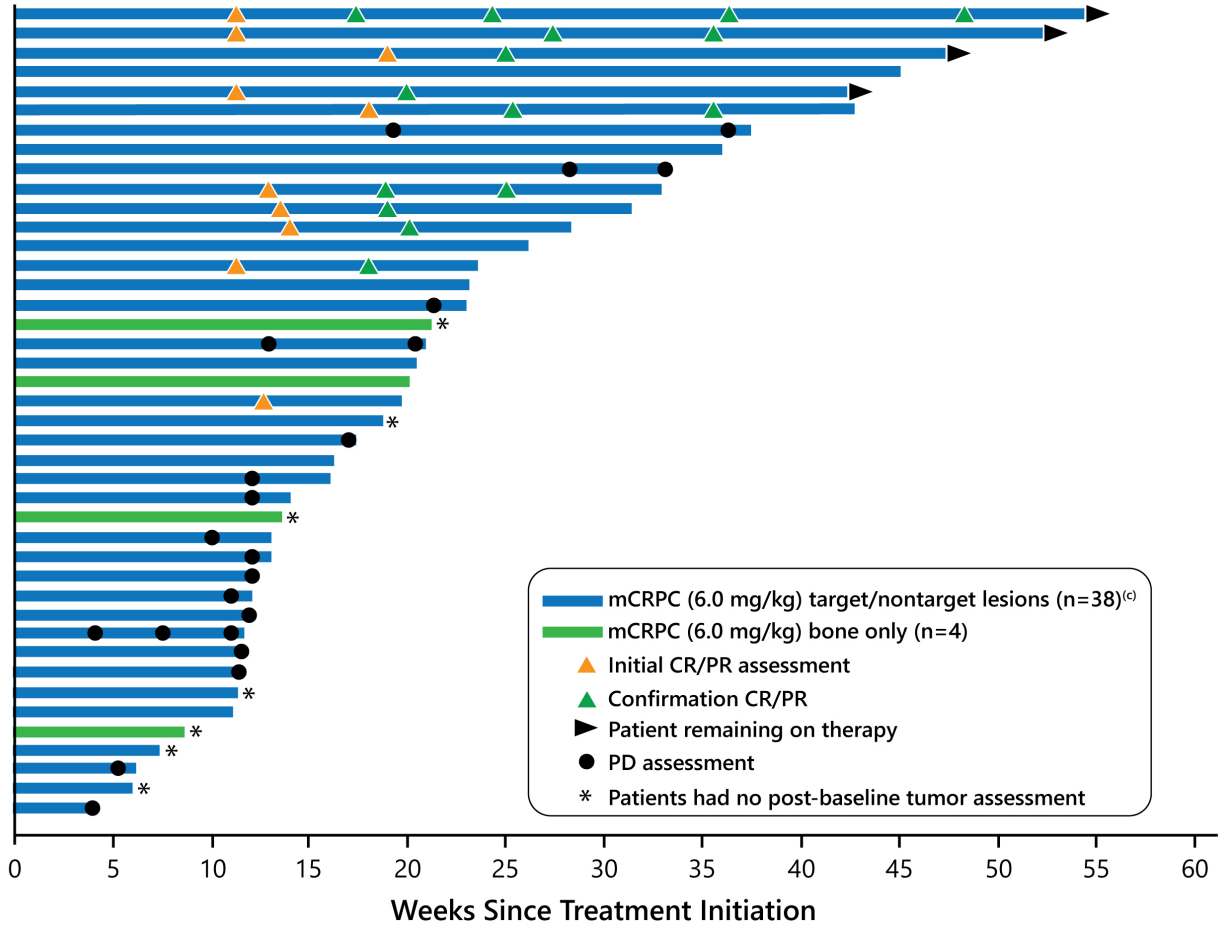
Baseline Characteristics (n=42)

Parameters		
Age	Median (range)	67 (55-79)
ECOG performance status n (%)	0	12 (28.6)
	1	30 (71.4)
Location of metastatic disease n (%)	Bone	40 (95.2)
	Liver	11 (26.2)
	Lung	8 (19.0)
Baseline SLD, mm n=35 with target lesions	Median (range)	48 (10-207)
Baseline PSA, ng/mL	Median (range)	94 (11-2523)
Prior lines of systemic therapy n (%)	Median (range) prior lines	2 (1-9)
	1	7 (16.7)
	2	15 (35.7)
	3	9 (21.4)
	4+	11 (26.2)
Prior systemic therapy n (%)	Docetaxel	35 (83.3)
	AR inhibitor	34 (81)
	PARP inhibitor	5 (11.9)
	Cabazitaxel	6 (14.3)

All specimens analyzed for microsatellite instability analysis (N=20) were microsatellite stable (MSS).

Majority of patients refractory to ARAT and taxane and with extensive tumor burden at study entry

Status of Patients



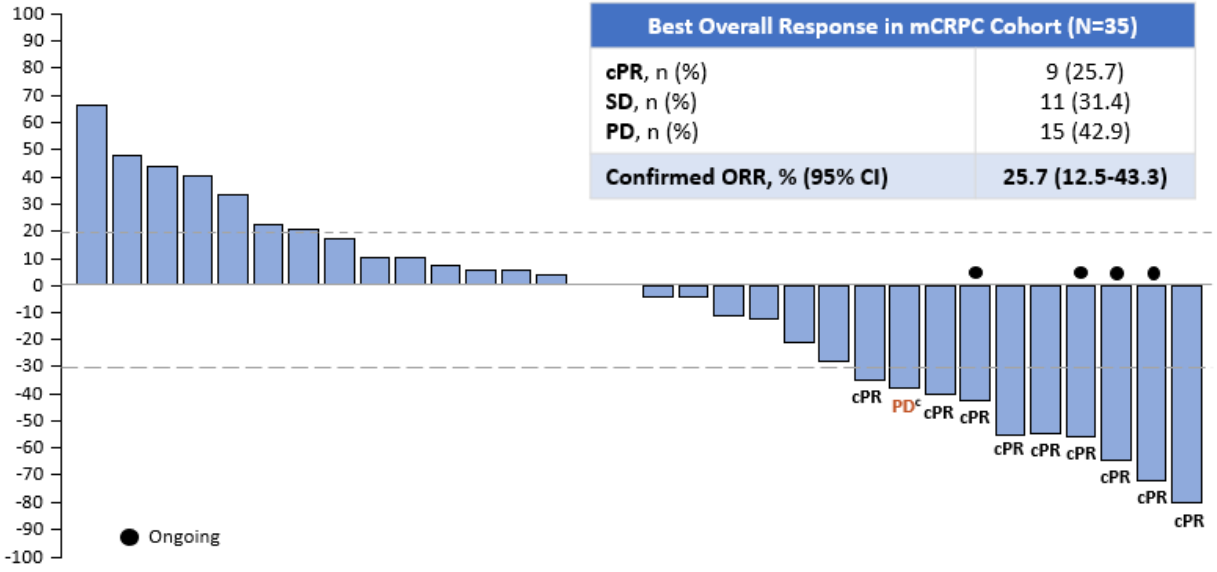
ASCO-GU 2023 (Luke, et al., #155); 12/12/22 data cut-off

Lorigerlimab: Efficacy Summary in mCRPC

Confirmed ORR = 25.7%, PSA50 response rate = 28.6%

Best % Change of Target Lesions

Best Overall Response in mCRPC Cohort (N=35)	
cPR, n (%)	9 (25.7)
SD, n (%)	11 (31.4)
PD, n (%)	15 (42.9)
Confirmed ORR, % (95% CI)	**25.7 (12.5-43.3)**

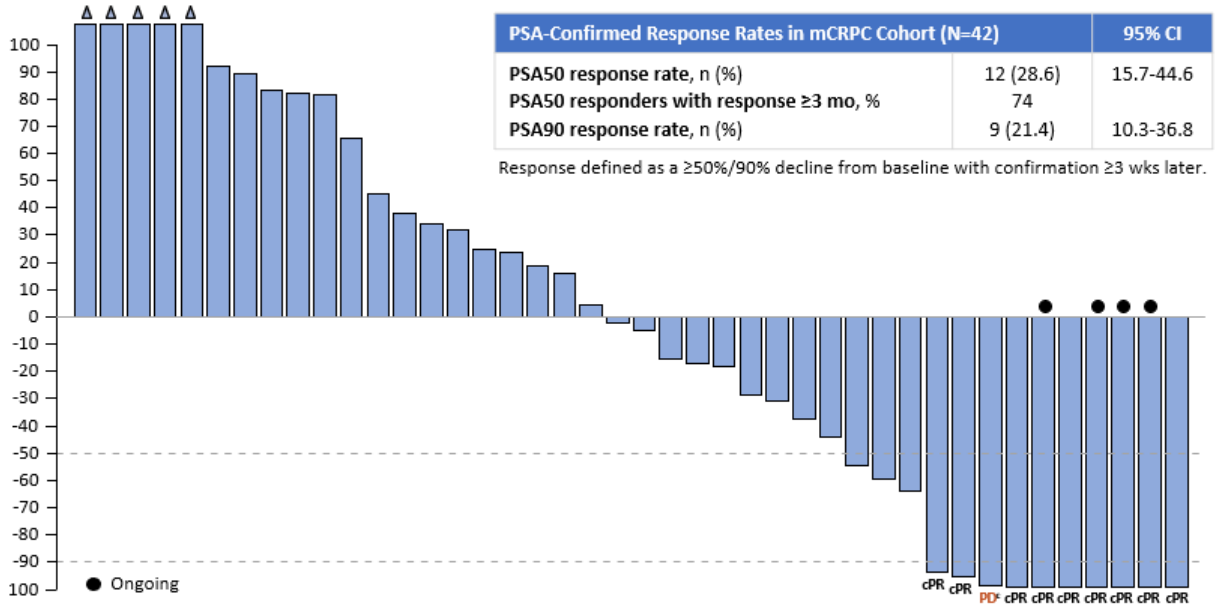


Includes 32 patients who received ≥1 dose, had measurable disease, and ≥1 post-baseline tumor evaluation

Best % Change of PSA

PSA-Confirmed Response Rates in mCRPC Cohort (N=42)		95% CI
PSA50 response rate, n (%)	12 (28.6)	15.7-44.6
PSA50 responders with response ≥3 mo, %	74	
PSA90 response rate, n (%)	9 (21.4)	10.3-36.8

Response defined as a ≥50%/90% decline from baseline with confirmation ≥3 wks later.



Includes patients who received ≥1 dose, had baseline PSA ≥ 2 ng/ml, and had ≥1 post-baseline PSA evaluation

- *Median exposure: 19.2 weeks (range: 3.3-55.1 weeks); median of 5 infusions/patient*
- *All patients with objective response had >90% reduction in PSA from baseline*
- *Among 9 patients with obj. response: 4 remained on study, 5 discontinued (unrelated AEs [4] and physician decision [1])*

ORR=objective response rate, cPR=confirmed partial response, SD=stable disease, PD=progressive disease, PSA=prostate-specific antigen.

ASCO-GU 2023 (Luke, et al., #155); 12/12/22 data cut-off

Lorigerlimab: Manageable Safety Observed in Advanced Solid Tumor Population

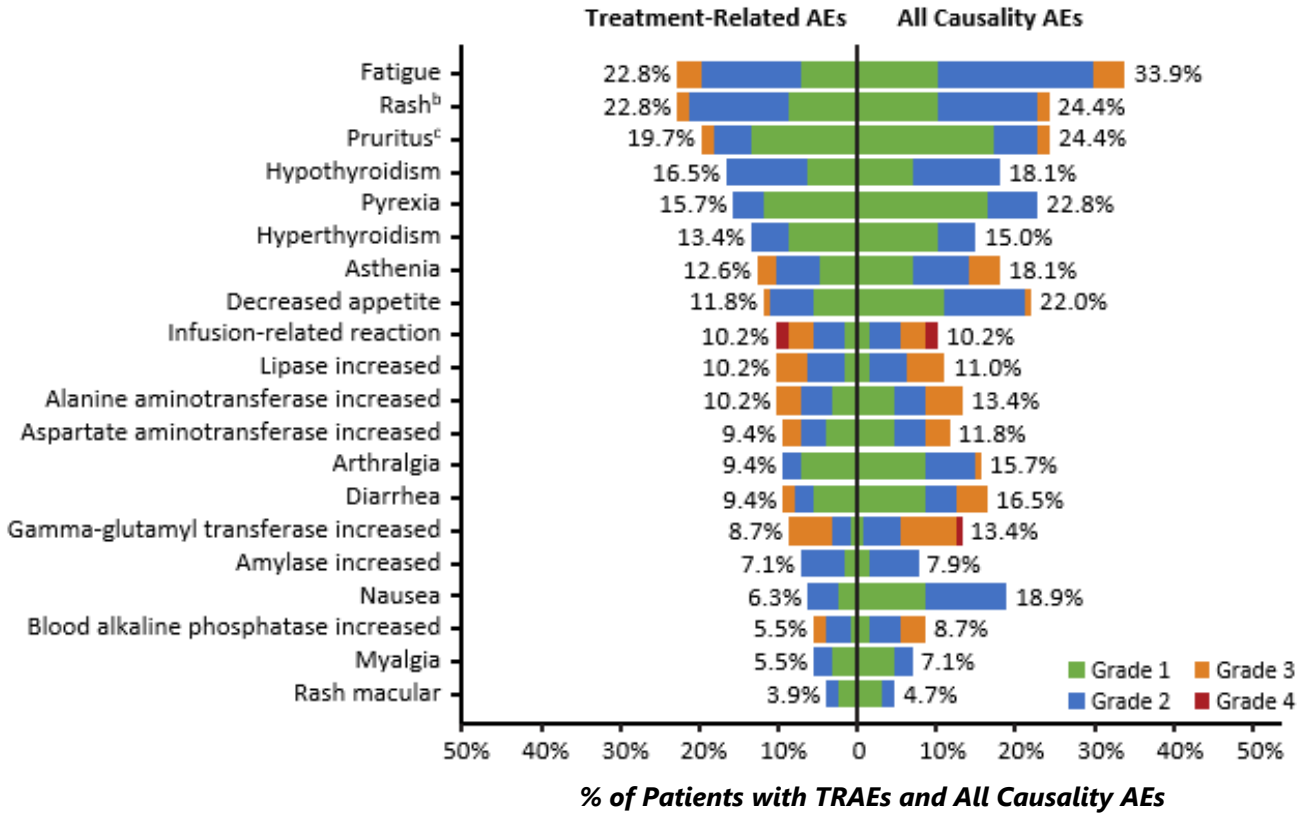
Safety population N=127 (118 patients from expansion cohorts, 9 from dose escalation)

Summary of Adverse Events

	All Grade, n (%)	Grade ≥3, n (%)
Any AE (all causality)	125 (98.4)	79 (62.2)
Treatment-related AEs	110 (86.6)	45 (35.4)
SAEs (all causality)	50 (39.4)	44 (34.6)
Treatment-related SAEs	22 (17.3)	18 (14.2)
AEs leading to lorigerlimab discontinuation	32 (25.2)	27 (21.3)
AESIs	40 (31.5)	16 (12.6)
Immune-related AEs	31 (24.4)	10 (7.9)

- ***Safety population***: *127 patients received ≥1 dose of lorigerlimab at 6 mg/kg*
- ***Median exposure***: *14.4 weeks (range: 1.9-100.1)*

Common Adverse Events



AE=adverse event, AESI=adverse event of special interest, SAE=serious adverse event, TRAE=treatment-related adverse event

ASCO-GU 2023 (Luke, et al., #155); 12/12/22 data cut-off

Background: Immune Checkpoint Inhibitors in mCRPC

	Lorigerlimab mCRPC Cohort (Interim Data)[a]	CheckMate 650[b] Phase 2 Nivolumab + Ipilimumab Part II		KEYNOTE-199[c] Phase 2 Pembrolizumab		
Previous Treatments	Median # prior lines: 2 (range: 1-9)	Post-docetaxel		Post-docetaxel and post-NHT		
N	42 (35 Measurable)	73 (43 Measurable)	74 (41 Measurable)	133 RECIST-measurable, PD-L1+	66 RECIST-measurable, PD-L1-	59 Bone-predominant disease
Dosing	6 mg/kg Q3W	Nivo (3 mg/kg) + Ipi (1 mg/kg) Q3W x 4 doses^ *(Median # ipi doses: 4)*	Nivo (1 mg/kg) Q3W x 8 doses + Ipi (3 mg/kg) Q6W x 4 doses^ *(Median # ipi doses: 2)*	200mg Q3W		
Median rPFS	NA	3.9 mos.	4.2 mos.	2.1 mos.	2.1 mos.	3.7 mos
Median OS	NA	15.9 mos.	13.5 mos.	9.5 mos	7.9 mos	14.1 mos
PSA50 response	28.6% (12/42)[d]	13.8% (9/65)	18.2% (12/66)	6%	8%	2%
ORR (%)	25.7%* (9/35)	9.3% (4/43)	19.5% (8/41)	5%	3%	NA
Treatment-Related AE Grade 3+	35.4% (N=127)	29% 1 Grade 5 Pneumonitis	30% 1 Grade 5 Colitis	15%		
AE Leading to Discontinuation	25.2% (N=127)	15% Treatment-Related	26% Treatment-Related	5% Treatment Related		

(a) Luke, et al., J Clin Oncol 41, 2023 (suppl 6; abstr 155) - ASCO-GU'23 (data cut-off: 12 December 2022); (b) Sharma, et al., J Clin Oncol 41, 2023 (suppl 6; abstr 22) - ASCO-GU'23; (c) Antonarakis, et al., J Clin Oncol 38, 2020:395-405; (d) Lorigerlimab PSA90 23.8% (10/42 patients)

NHT=next-generation hormonal therapy (e.g., abiraterone, enzalutamide); NA=not available; AE=Adverse Event;
**=ORR calculated based on N=35 with measurable disease per RECIST v1.1 at study entry; ^=followed by nivolumab (480 mg Q4W)*

Lorigerlimab + Docetaxel: mCRPC Phase 2 Study Design Summary

Study for patients who progress post-NHT; Enrollment completion expected in late 2024 or early 2025

LORIKEET

Key Eligibility Criteria:

- mCRPC chemo-naïve patients
- Received NHT for metastatic disease
- No prior chemotherapy for mCRPC
- Prior PARPi allowed

Stratification Factors:

- Disease Location *(bone only vs. visceral)*
- Region

Total n=150 Patients

R 2:1

Lorigerlimab 6 mg/kg Q3W
Docetaxel 75 mg/m2 Q3W
Prednisone 5 mg BID

Docetaxel 75 mg/m2 Q3W
Prednisone 5 mg BID

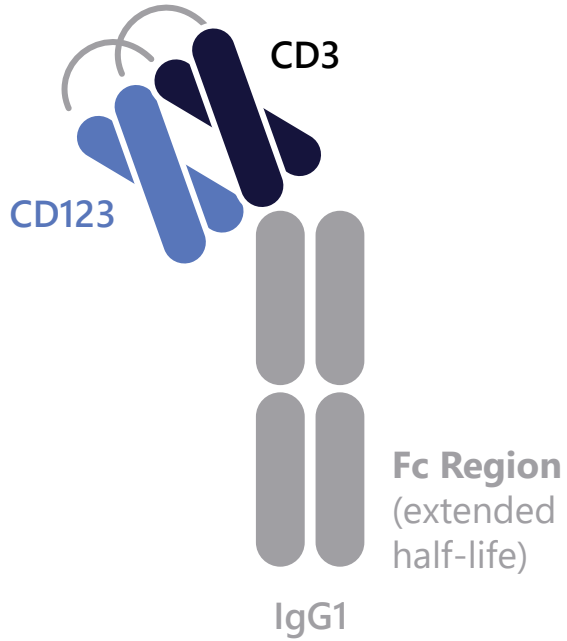
Primary Endpoint:
rPFS

Key Secondary Endpoints:
ORR[(a)], DOR, PSA50/90, Time to PSA Progression, mOS, Safety

(a) ORR measured according to Prostate Cancer Clinical Trials Working Group 3 (PCWG3) guidelines.
mCRPC=metastatic castration-resistant prostate cancer; NHT=next-generation hormonal therapy; ORR=objective response rate; PSA=prostate-specific antigen; Q3W=every 3 weeks; BID=twice per day; R=randomize; rPFS=radiographic progression-free survival; DOR=duration of response; mOS=median overall survival.

MGD024: Next Generation CD123 × CD3 DART Molecule

Leverages MacroGenics' significant know-how in developing CD3-directed bispecifics



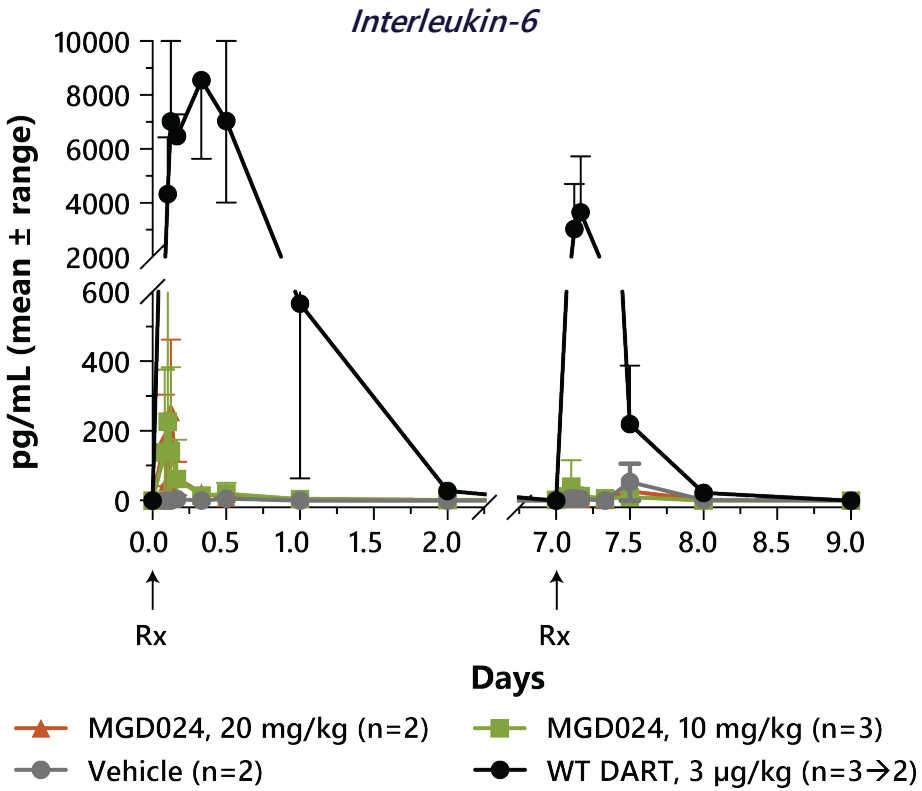
Function/ MoA	• Redirected T-cell killing against leukemia cells – Next generation CD3 variant minimizes cytokine release syndrome while maintaining cytolytic activity – Inclusion of Fc domain extends half-life to enable intermittent dosing
Results	• Preclinical data presented at ASH 2021: – Anti-leukemic activity in vitro and in murine tumor models – Good tolerability in cynos with reduced cytokine release – PK profile consistent with dosing patient on weekly basis or longer interval – Combinable with standard-of-care agents
Program Activities	• Ongoing Phase 1 dose escalation in hem. malignancies • Commenced Gilead collaboration in October 2022

MGD024 is investigational and has not yet been approved for marketing by any regulatory authority

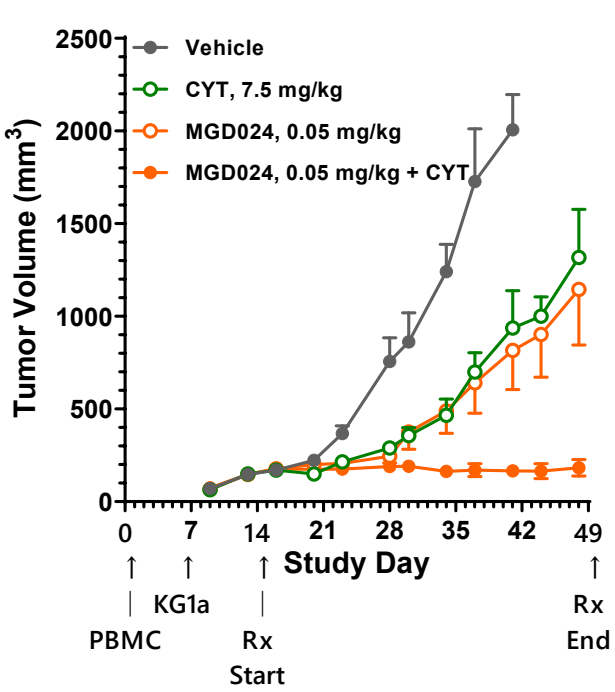
MGD024: Favorable Cytokine Profile, Encouraging Combination Activity (in vivo)

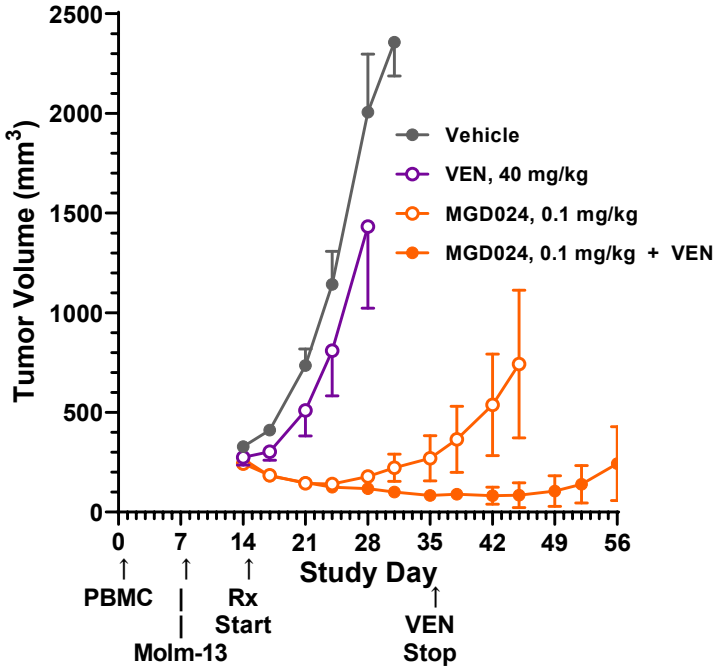
Preclinical data presented at ASH 2021

Improved Tolerability vs. Wild Type (WT) in Cynos



MGD024 Enhances Anti-tumor Activity When Combined with Either Cytarabine (CYT) or Venetoclax (VEN)





Alderson, et al., ASH 2021

Key Anticipated Program Milestones

Vobra Duo
(Anti-B7-H3 ADC)

✓ Safety and efficacy update at ESMO 2024

Expect mature median rPFS (no later than early 2025)

MGC026
(Anti-B7-H3 TOP1i ADC)

✓ Phase 1 initiated

Clinical update (1H25)

Lorigerlimab
(PD-1 × CTLA-4 DART molecule)

Complete LORIKEET enrollment in late 2024 or early 2025

Clinical update (1H25)

MGC028
(Anti-ADAM9 TOP1i ADC)

✓ Preclinical data at AACR

✓ IND submitted (pending clearance by FDA)

Initiate Phase 1 (2025)

Partnered Assets – Marketed

Clinical/regulatory updates: ZYNYZ and TZIELD

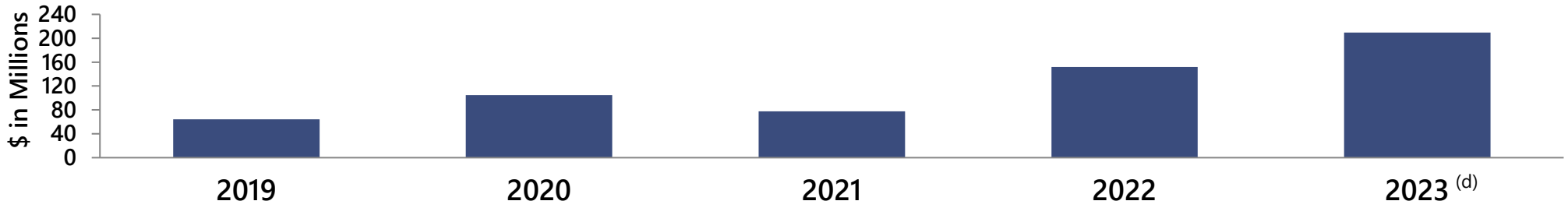
Closing of MARGENZA sale to TerSera (4Q24)

Financial Overview

- $200M Cash, cash equivalents and marketable securities as of September 30, 2024[(a)]
  - Cash runway *into 2026* via anticipated and potential collaboration payments and product revenues[(b)]
- Historical financial details:

$ in Millions	2019	2020	2021	2022	2023	9 Mos. Ended 9/30/24	9 Mos. Ended 9/30/23
Total Revenues	$64	$105	$77	$152	$59[(c)]	$105	$24
R&D Expense	195	193	215	207	167	138	119
Total Operating Expenses	241	236	280	273	227	188	167
Cash & Investments	216	273	244	154	230	200[(a)]	256

- Total revenues *(primarily from collaborative agreements)*



(a) Does not include $40M upfront payment anticipated from TerSera Therapeutics LLC related to sale of global rights to MARGENZA, less an $8.0 million amendment fee to be paid to Company's current commercialization partner.
(b) Cash runway guidance reflects anticipated expenditures related to Phase 2 TAMARACK clinical trial, Phase 2 LORIKEET study of lorigerlimab in mCRPC, and MacroGenics' other ongoing clinical and preclinical studies.
(c) Does not include $150.9 million of Other Income ("Gain on royalty monetization arrangement").
(d) Includes $150.9 million of Other Income ("Gain on royalty monetization arrangement").

Thank You!

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