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for Cancer Research
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AACR.ORG/AACR2026 | **#AACR26**

Targeted therapy: Data driven approaches and novel drugs

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Multi-epitope Targeting Tetra-valent Antibody (MUTTA™) Platform for Developing NextGen ADCs with an Improved Therapeutic Window

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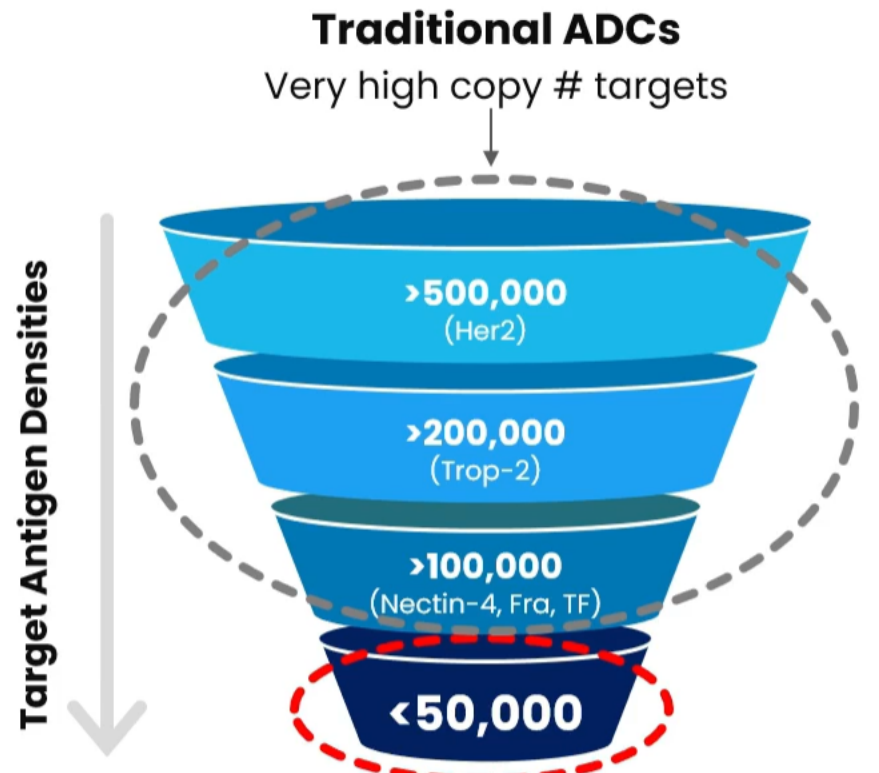
April 21, 2026, AACR 2026, San Diego

Clinical Research, Targeted Therapy:

Data Driven Approaches and Novel Drugs



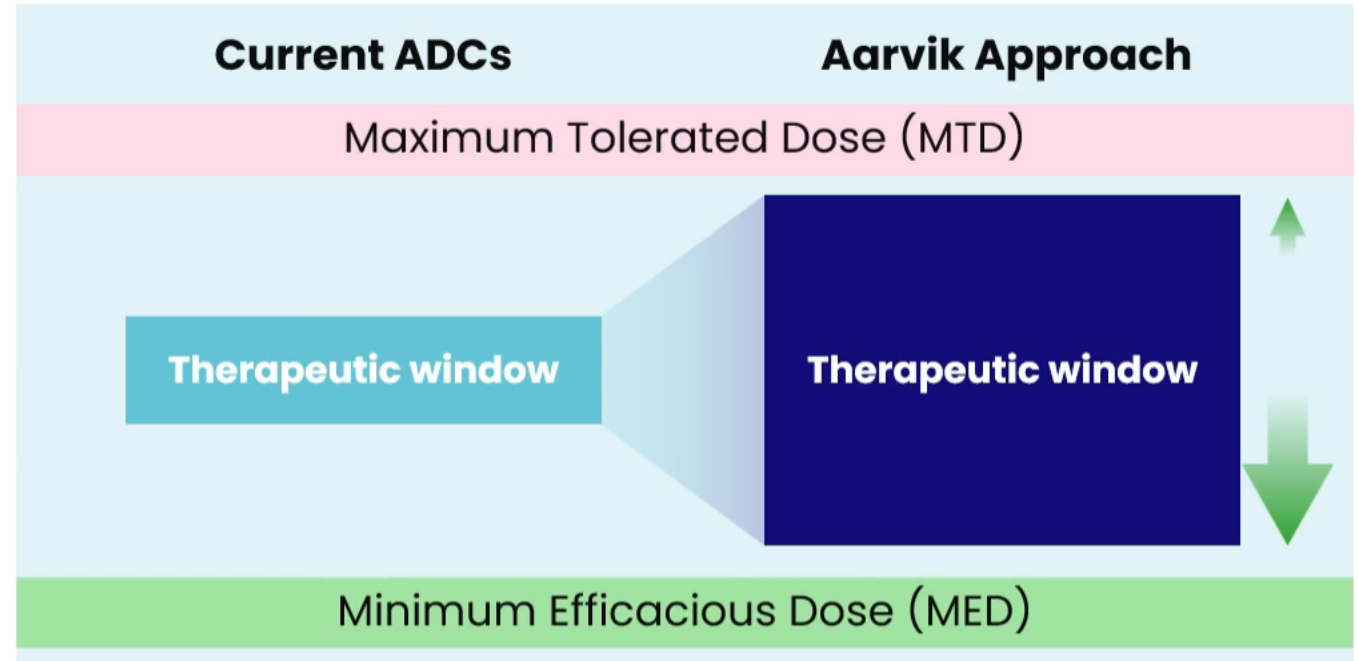
Traditional ADCs Face Significant Limitations in Solid Tumors



ADC Opportunity

Majority of solid tumor antigens have

1. Low copy number
2. Heterogenous expression



Limitations of traditional ADCs



Indication Limitations: confined to high copy # targets (e.g., Her2, Trop2, Nectin-4, FR α , TF)



Efficacy Limitations: constrained by maximum tolerated dose (MTD) and off-target toxicity

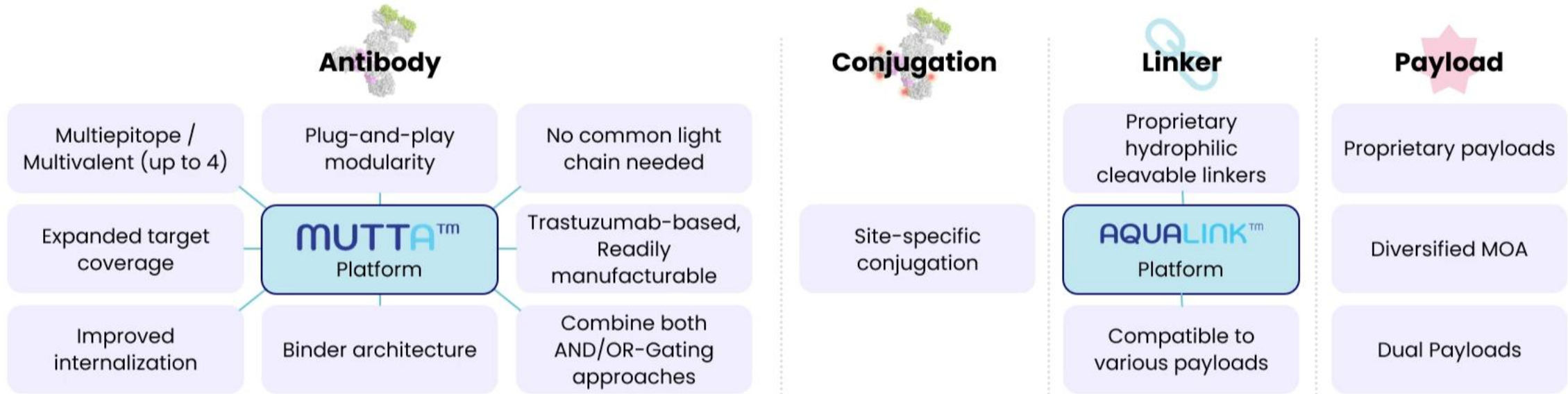
Aarvik is focused on developing multi-functional ADCs for solid tumors

Aarvik MUTTA™ ADC Platform

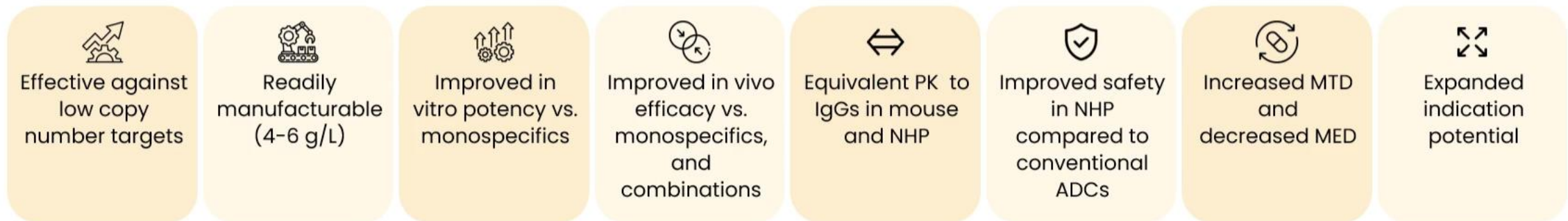
Advancing the future of Antibody Drug Conjugates

MUTTA™
Multi-epitope Targeting Tetravalent Antibody

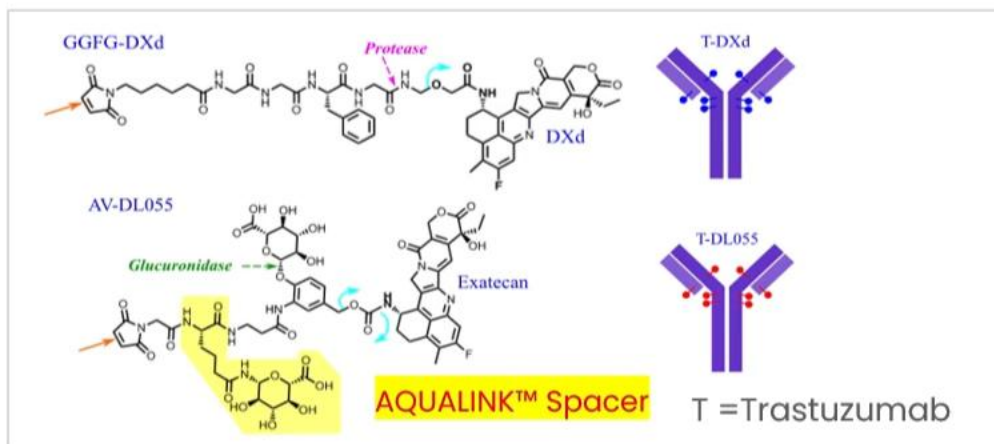
MUTTA™ ADC Platform



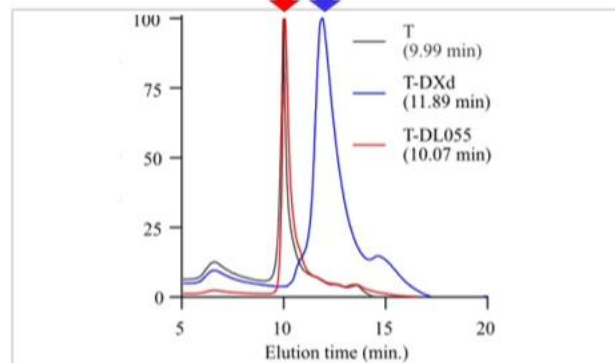
Proven Benefits



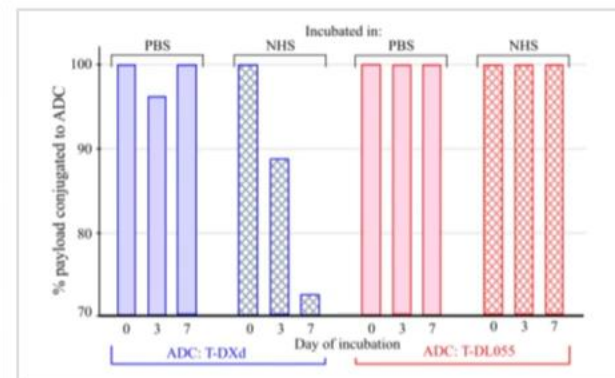
AQUALINK™ Platform: Exatecan-Based Hydrophilic ADCs Displayed Superior Stability and Efficacy



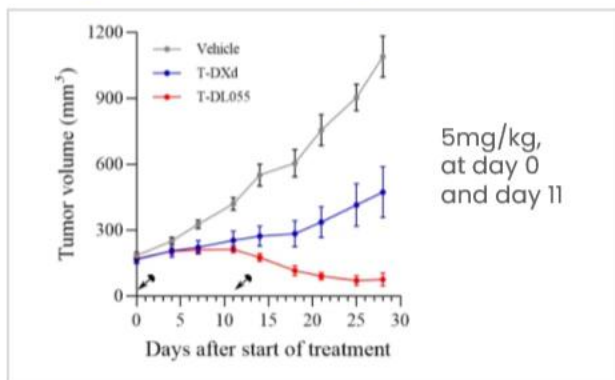
Improved ADC Hydrophilicity



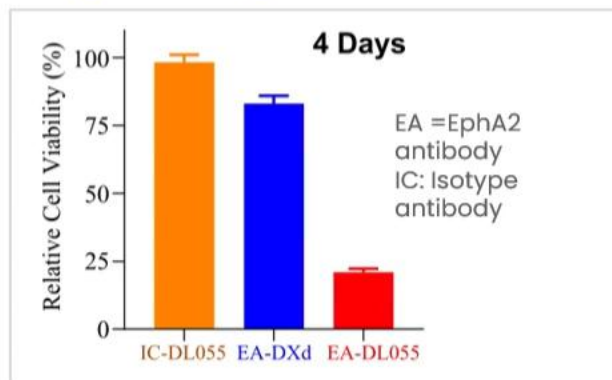
Improved ADC Serum Stability



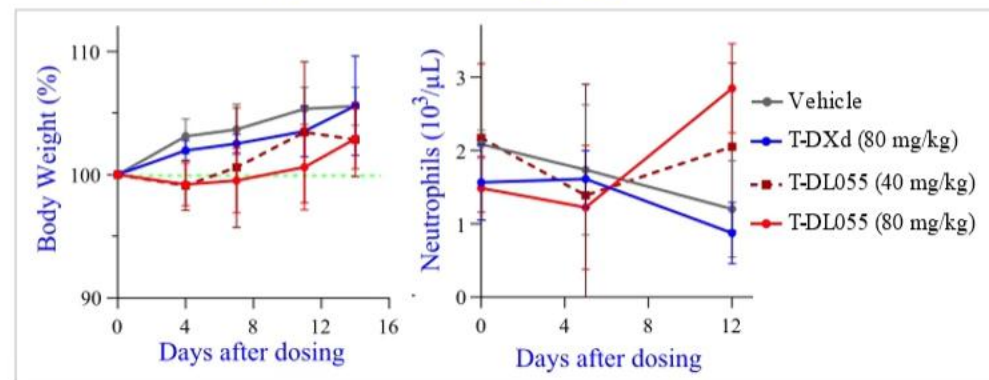
Improved Efficacy



Improved Bystander Effect



Similar Safety; MTD >80mg/kg in Mice

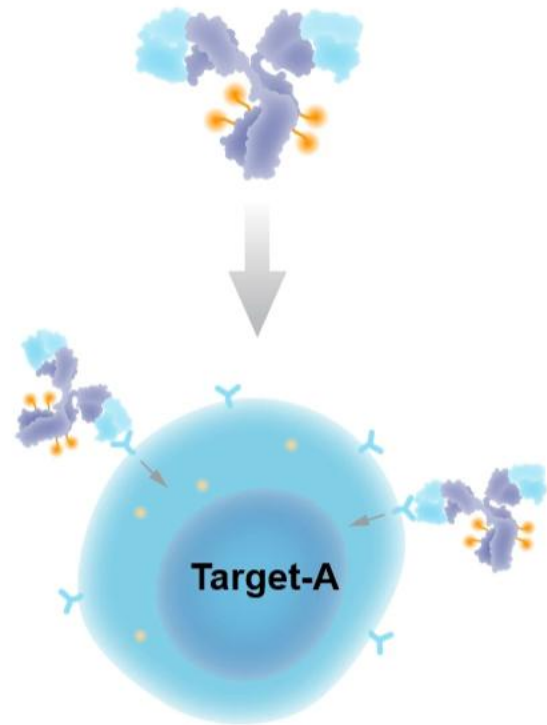


Exatecan Payload-Based Antibody-Drug Conjugates with a Short Hydrophilic β -Glucuronidase Cleavable Linker

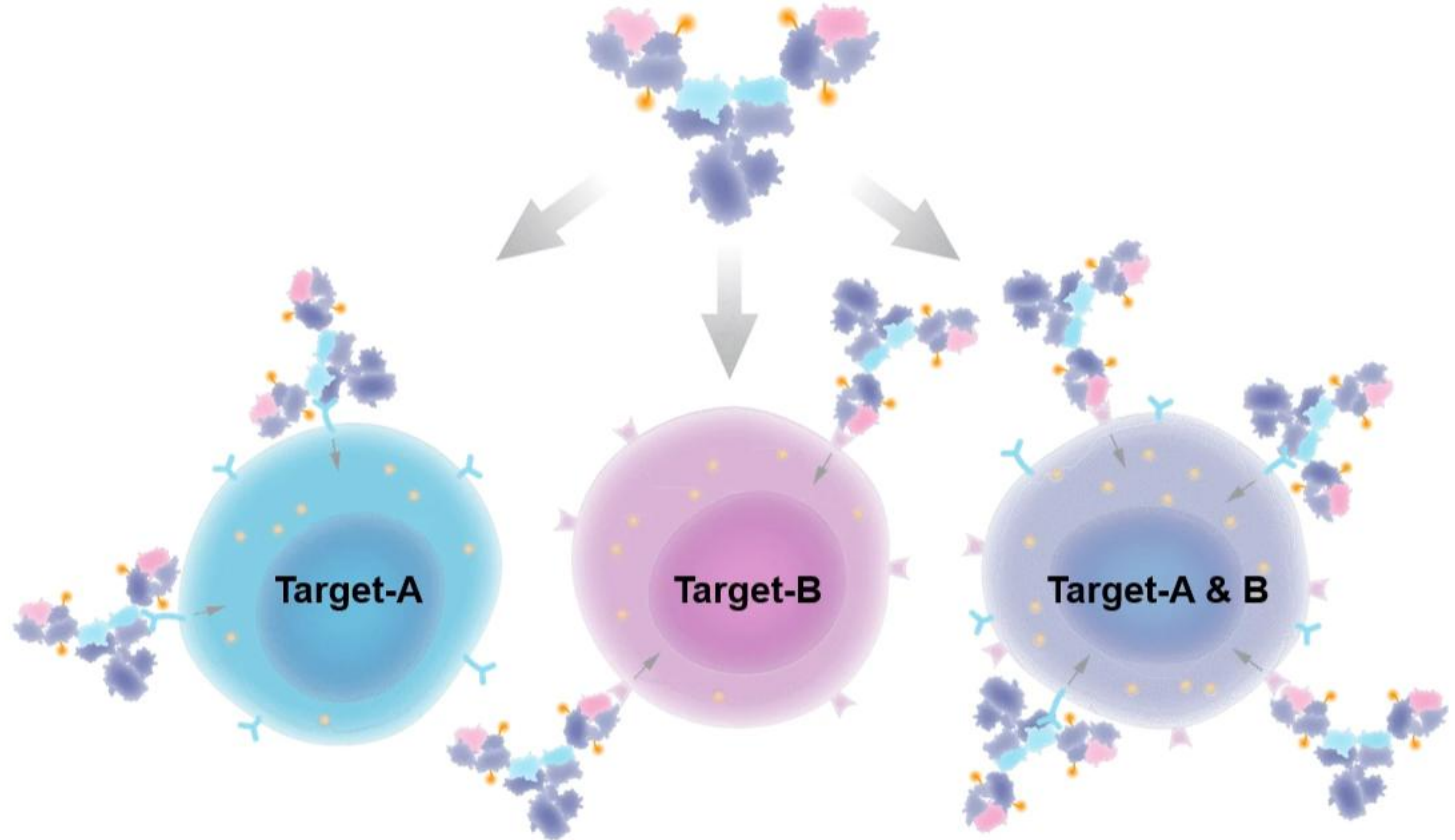
Vasu Jammalamadaka, Jiang Liu, Sunil Bhakta, Vidya S. Jonnalagadda and Jagath R. Junutula
Aarvik Therapeutics, Inc; 31363 Medallion Dr, Hayward, CA, 94544

Abstract Number: 5757; Date and Time: Tuesday April 21, 2026; 2 – 5 PM PT

MUTTA™ ADCs Combine Both AND/OR-Gating Approaches for Expanded Antigen Targeting and Heterogeneity Coverage

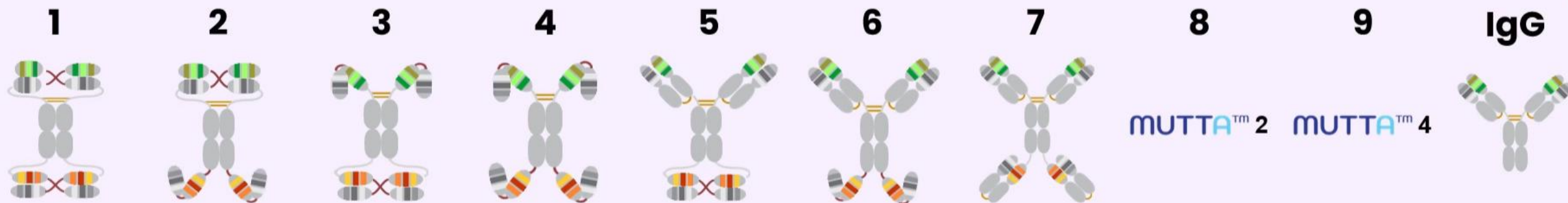


Monospecific ADCs demonstrate limited target-dependent potency, especially on heterogeneously expressed solid tumors



Dual Targeting MUTTA™ ADCs can kill 3 different types of target cells and can address heterogeneous target expression in solid tumors, especially target escape/loss scenarios

Aarvik's MUTTA™ Platform Demonstrates Optimized Manufacturability



% Monomer

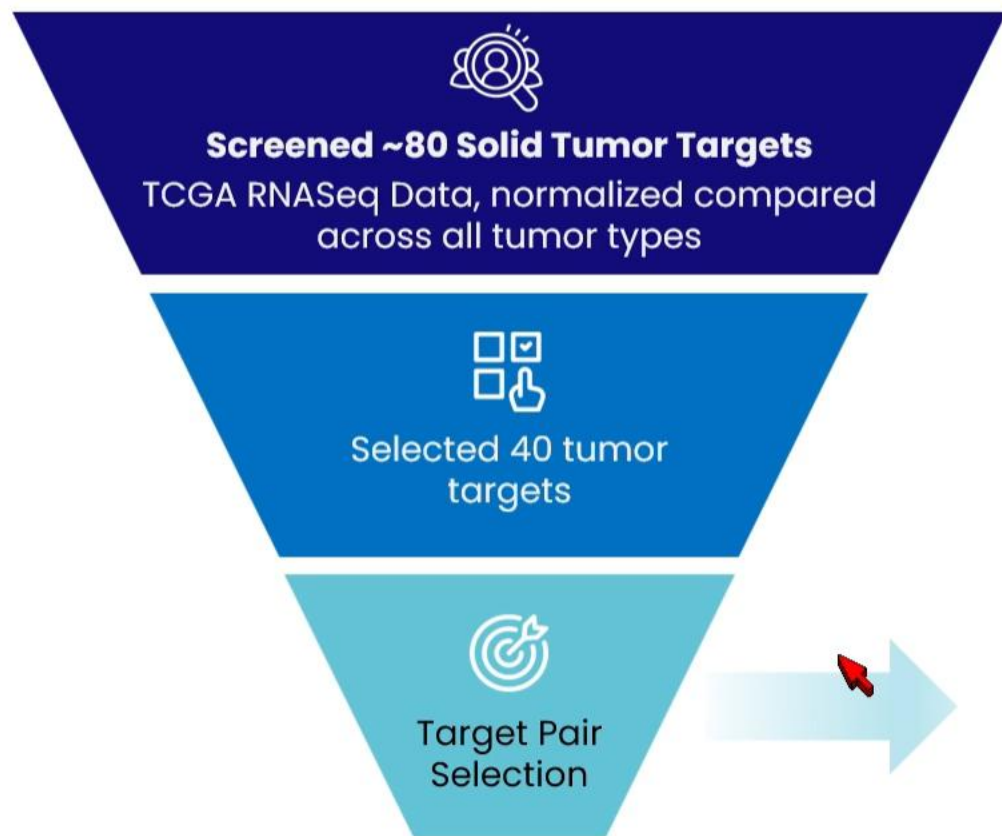
80% 67% 79% 81% 44% 77% 90% 90% 95% 95%

Monomer Yield (mg/L)

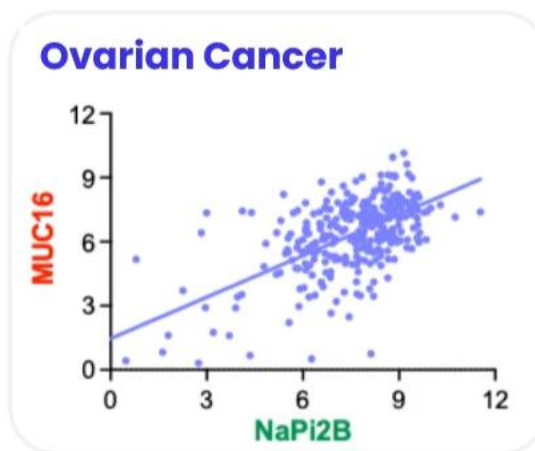
10 30 10 70 21 95 180 190 200 228

Lead ADC Target Selection Workflow Using BIG Data

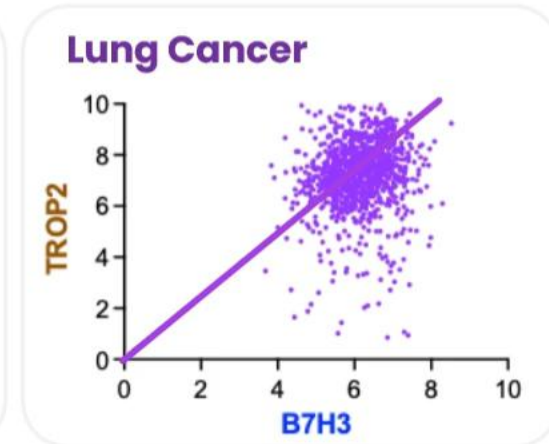
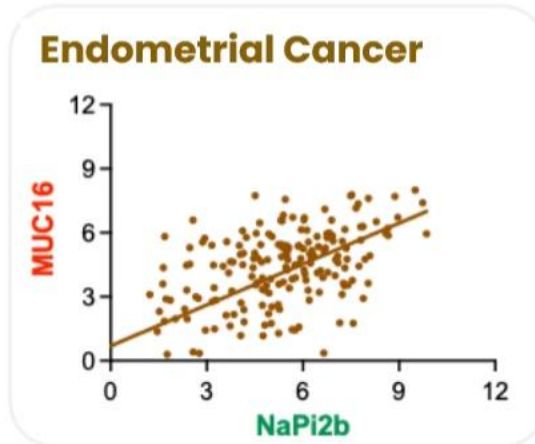
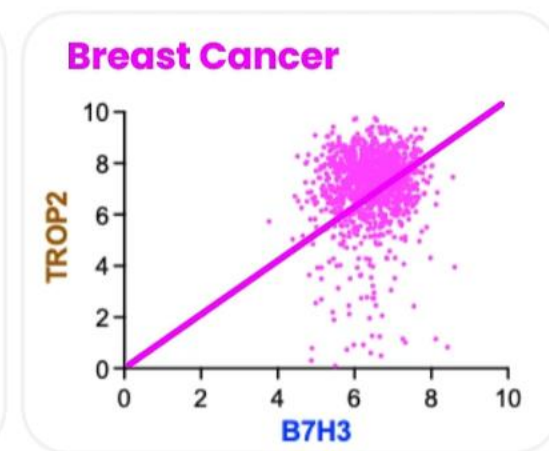
106 Validated Tumor Targets for ADCs in the Clinic



Target Pair 1



Target Pair 2



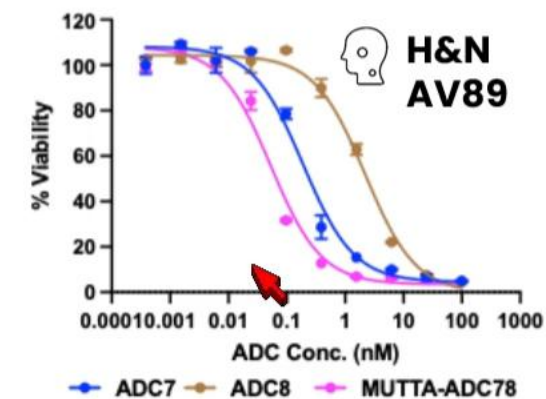
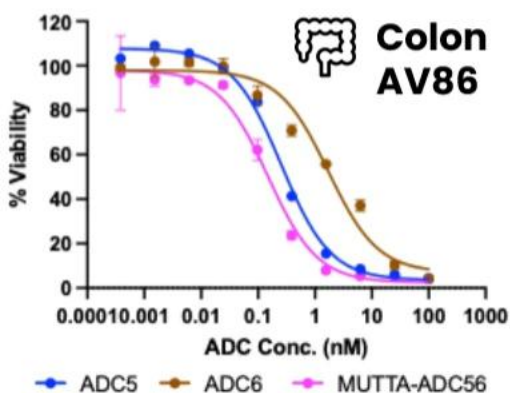
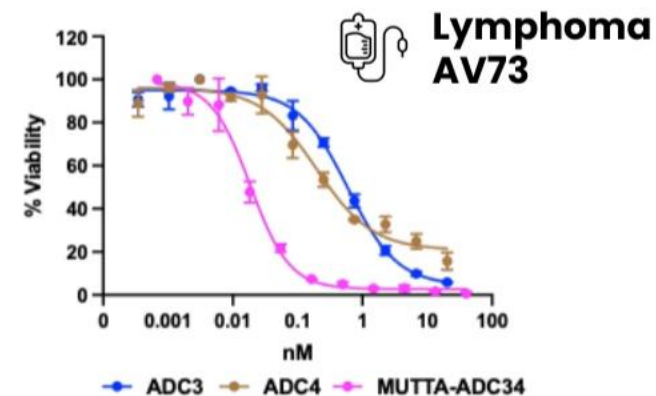
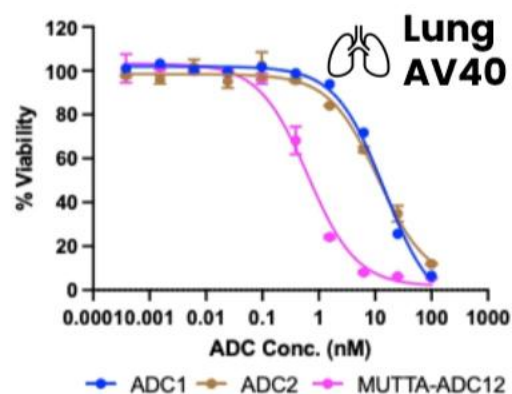
Most MUTTA™ ADCs Displayed Superior In Vitro Potency Over Monospecific ADCs

MUTTA™ > Monospecific ADCs

AV03 Ovarian	AV08 Multiple	AV12 Pancreas	AV20 Multiple
AV21 Breast, Lung	AV28 Lung-Adeno	AV40 Lung	AV44 Bladder
AV51 Prostate	AV73 NHL	AV86 Colon	AV89 Head & Neck

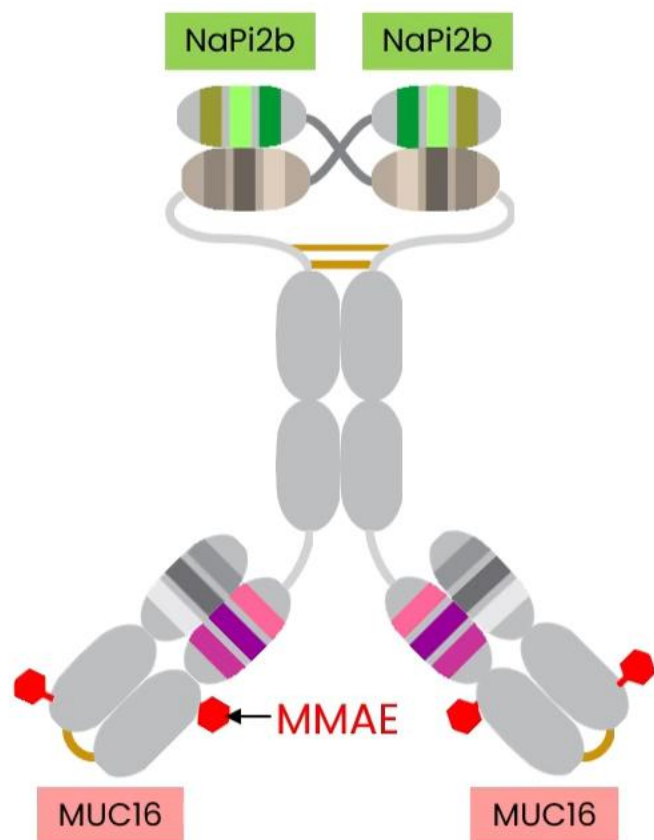
MUTTA™ = or >/< Monospecific ADCs

AV01 Breast	AV06 Multiple	AV29 Lung-Adeno	AV30 Lung-Adeno
AV41 Lung-Adeno	AV49 Prostate	AV50 Prostate	AV82 Colon



AV-P138-ADC (ARR-002): Dual-Target MUC16 and NaPi2b Tetravalent ADC With Best-in-Disease Potential in Ovarian and Endometrial Cancers

Designed to broaden the therapeutic window and overcome tumor heterogeneity



1 - Dual Targeting with Tetravalent Ab (2+2 Format)

- Both targets highly expressed in ovarian and endometrial cancers
- Improved internalization and anti-tumor efficacy vs. single-target ADCs
- Novel tetravalent format with IgG-like properties

2 - Site-Specific Conjugation

- Improved conjugation stability
- Better pharmacokinetics (PK) profile
- Superior tolerability

} Compared to random conjugated ADCs

3 - MMAE Payload (DAR = 4)

- Validated clinical activity in ovarian tumors
- Widely reported bystander activity
- Potential to induce immunogenic cell death (ICD)

AV-P138-ADC (ARR-002), a Novel MUC16/NaPi2b Dual-Target Tetravalent ADC, for the Treatment of Ovarian and Endometrial Cancers

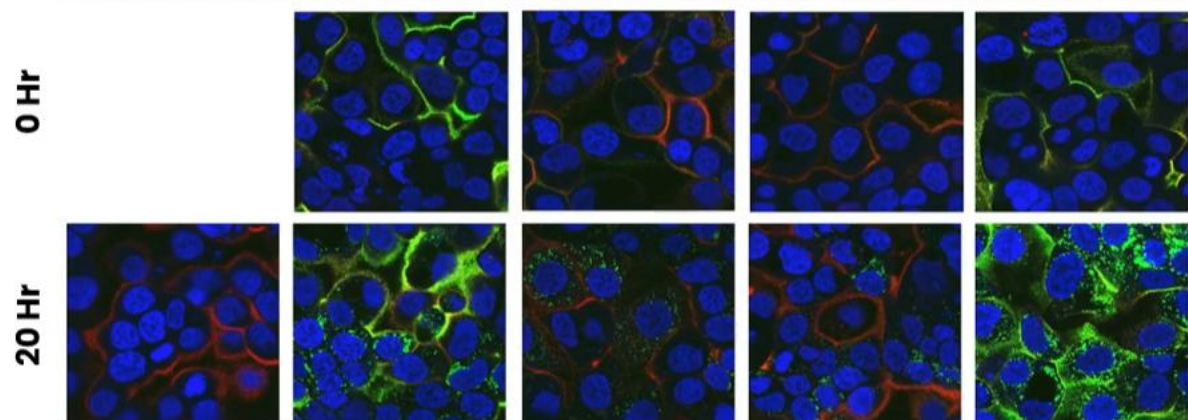
Sunil Bhakta¹, Levi Blazer¹, Cristina Abrahams², Jiang Liu¹, Coen Kuijl³, Jarret Adams¹, Anbalagan Jagannathan¹, Anay Limaye¹, Marcin Kowanetz², Luna Musib², Amy Kim², Wanda Kwan², Viswanatham Katta¹, Vidya S. Jonnalagadda¹, Reva Raghupathi¹, Paul Polakis¹, Stuart Lutzker², Sachdev S. Sidhu¹ and Jagath R. Junutula¹

¹Aarvik Therapeutics, Inc; ²ArriVent Biopharma, Inc; ³VU Medical Center, Amsterdam

Abstract Number: 2660; **Date and Time:** Monday April 20, 2026; 9 AM - 12 PM PT

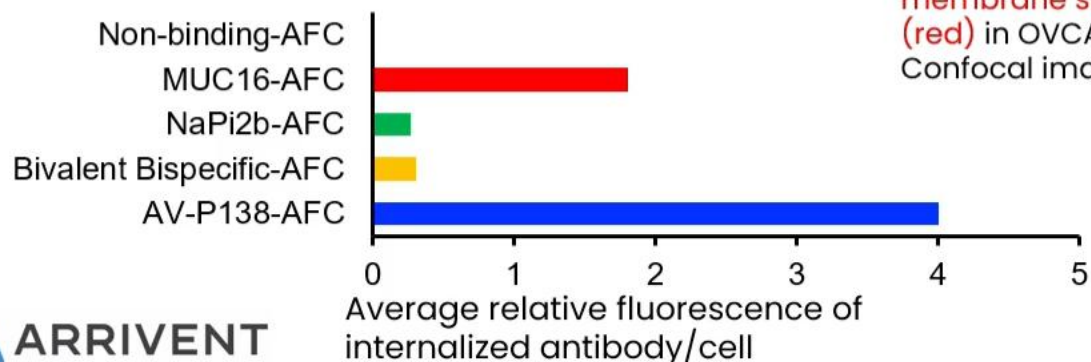
AV-P138-ADC (ARR-002) Improved Internalization and In Vivo Activity Compared to Single-Agent or Bivalent Bispecific Antibodies

More efficient internalization vs comparators

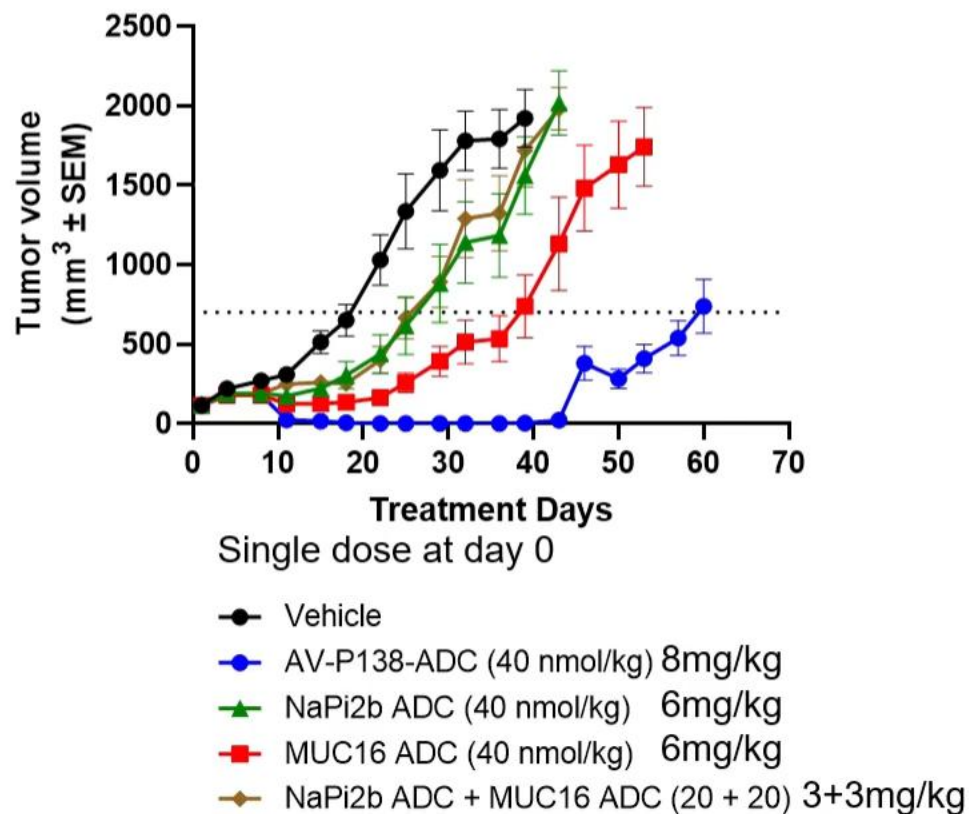


Fluorescence at 20h of incubation

Ab (green) and membrane staining (red) in OVCAR-3 Confocal images



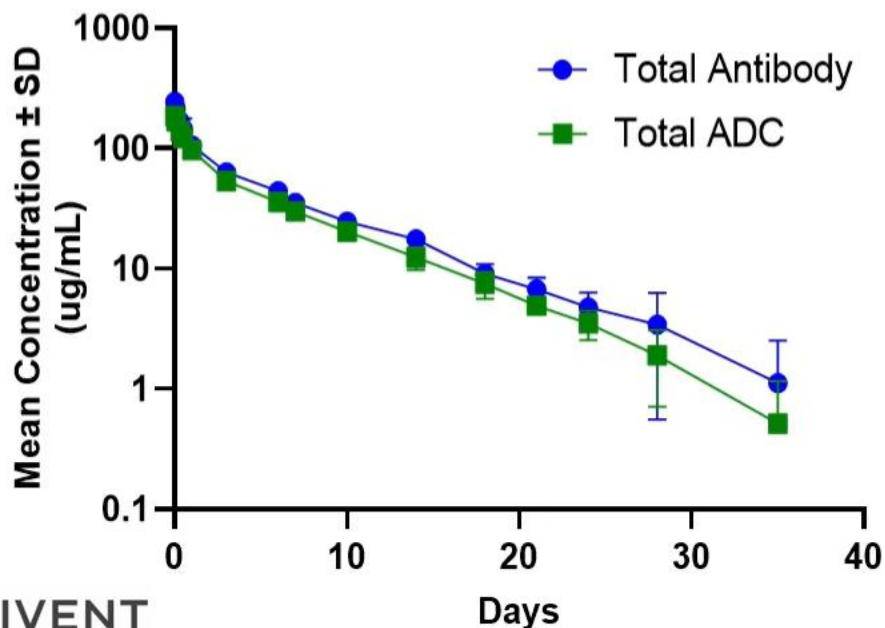
Superior efficacy compared to single-target ADCs



AV-P138-ADC (ARR-002) Displays a Favorable Safety Profile in NHP Compared to Traditional MMAE ADCs to Potentially Broaden the Therapeutic Window

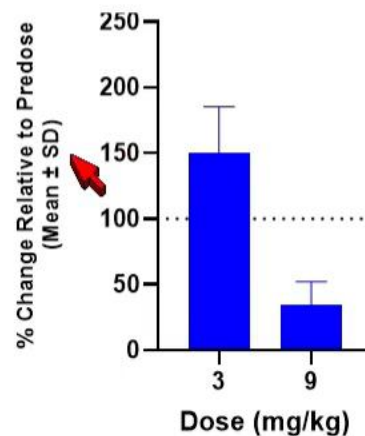
- Single-dose tolerability of AV-P138-ADC was evaluated in female cynomolgus monkeys at 1, 3, and 9 mg/kg
- Well-tolerated with 9 mg/kg single dose MTD in cynomolgus monkeys (vs 3–6 mg/kg randomly conjugated MMAE ADCs¹)
- ArriVent Biopharma, Inc. is developing ARR-002 and plans to file a US IND in 2026

Minimal systemic payload release from ADC

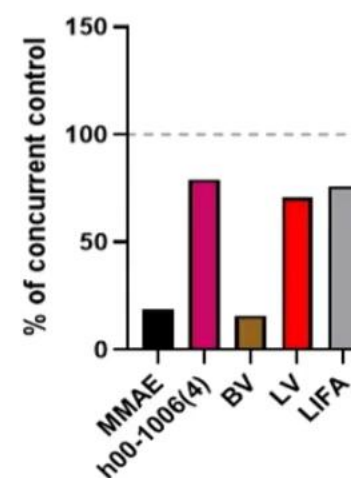


Improved tolerability vs random conjugated MMAE ADCs

AV-P138-ADC, DAR4 (Site-specific)
3 mg/kg and 9 mg/kg
Reticulocytes (Day 8)



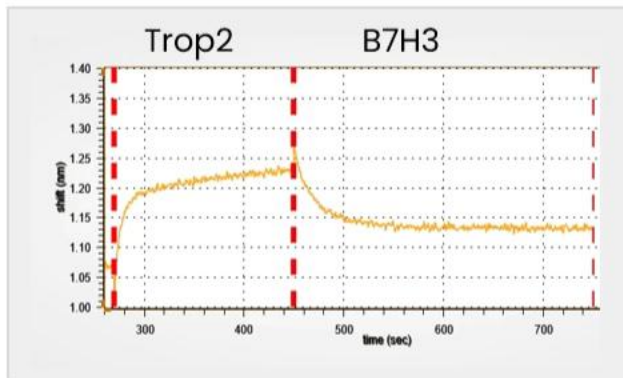
MMAE ADCs, DAR4 (Random)
3 mg/kg¹
Reticulocytes (Day 8)



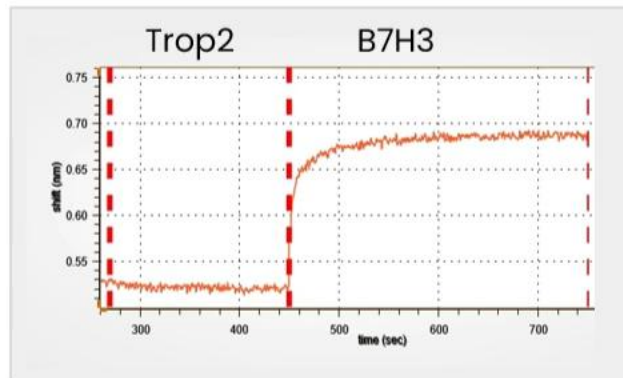
¹ Neff-Laford, H. et al. MCT 2024; Abbreviations: h00-1006=Non-targeting MMAE ADC; BV=Brentuximab Vedotin (CD30); LV= Ladiratumzumab Vedotin (LIV1); LIFA=Lifastuzumab Vedotin (NaPI2b)

AV21: Dual Targeting B7H3/Trop2 MUTTA™ ADC Displayed Superior Potency Over Monospecific ADCs

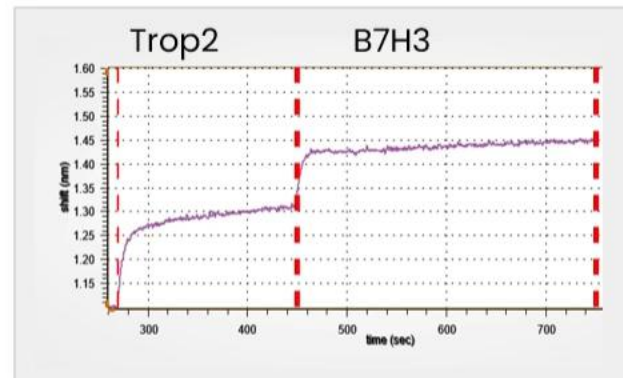
Trop2 Antibody



B7H3 Antibody

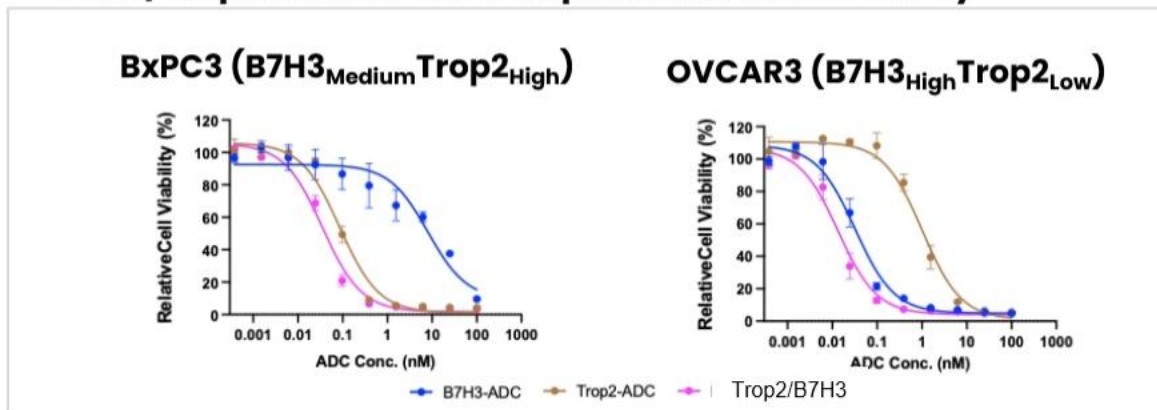


Trop2/B7H3 MUTTA™

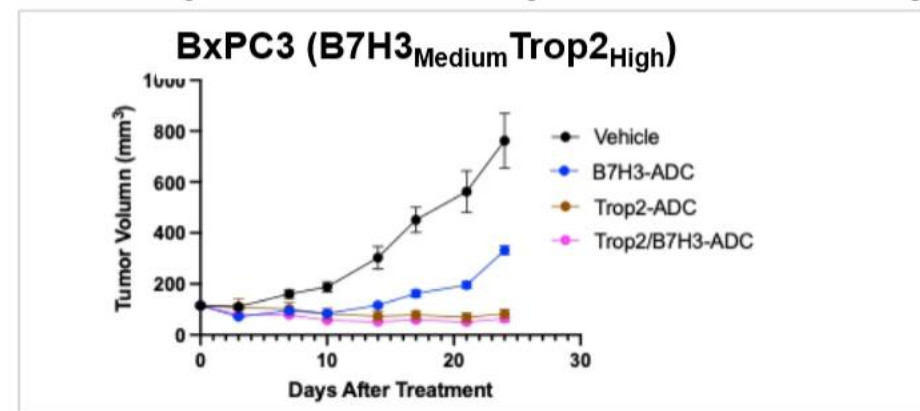


**Trop2/B7H3
MUTTA™ engages
both targets**

B7H3/Trop2 MUTTA™ ADC Improved In Vitro Potency



B7H3/Trop2 MUTTA™ ADC Improved In Vivo Efficacy

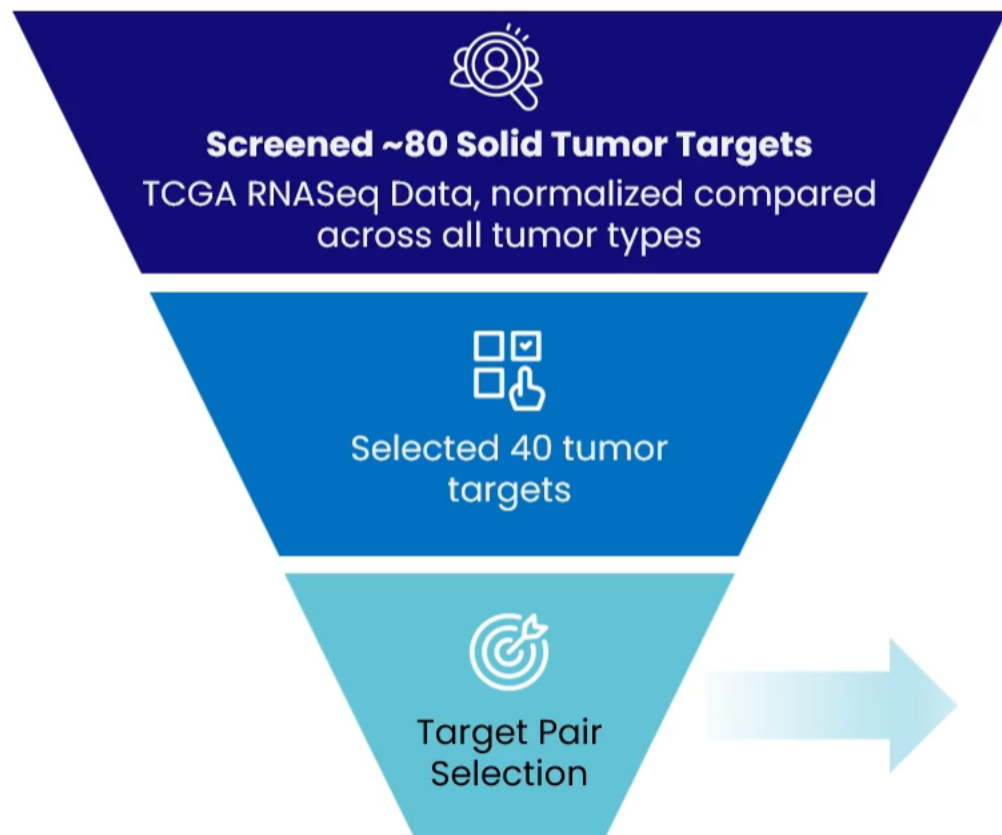


DAR4 Site-specific vcMMAE ADCs

DAR4 Site-specific DL055 ADCs

MUTTA™ ADC Assets Available for Partnership

106 Validated Tumor Targets for ADCs in the Clinic



Partnered			
AV03 Ovarian	AV08 Multiple	AV12 Pancreas	AV20 Multiple
AV21 Breast, Lung	AV28 Lung-Adeno	AV40 Lung	AV44 Bladder
AV51 Prostate	AV73 NHL	AV86 Colon	AV89 Head & Neck



Acknowledgements

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Wanda Kwan, Marcin Kowanetz,
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