



# Making a Meaningful Difference

Accelerating the next generation of therapeutics to improve the standard of care for the most challenging diseases in cancer, autoimmune and inflammatory disease

May 2025

Nasdaq: ZYME | [zymeworks.com](https://zymeworks.com)



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# Zymeworks: Global Biotech Focused on Targeted Therapies



## Starting with Patients

- Focusing on **challenging, multi-factorial diseases with significant unmet medical needs**, including aggressive cancers with historically low survival rates and complex autoimmune and inflammatory disorders that remain difficult to treat
- Focused on **developing best-in-class multifunctional therapeutics** that hold the potential to optimize patient outcomes



## Driven by Science & Technology

- Suite of **ADC technologies** combines the **precision of antibodies with the power of potent proprietary payloads** for targeted delivery to cells
- **Clinically validated proprietary MSAT technology, Azymetric™** and suite of MSAT technologies **enhance therapy precision, efficacy, and adaptability**, targeting complex disease mechanisms



## Empowered by People

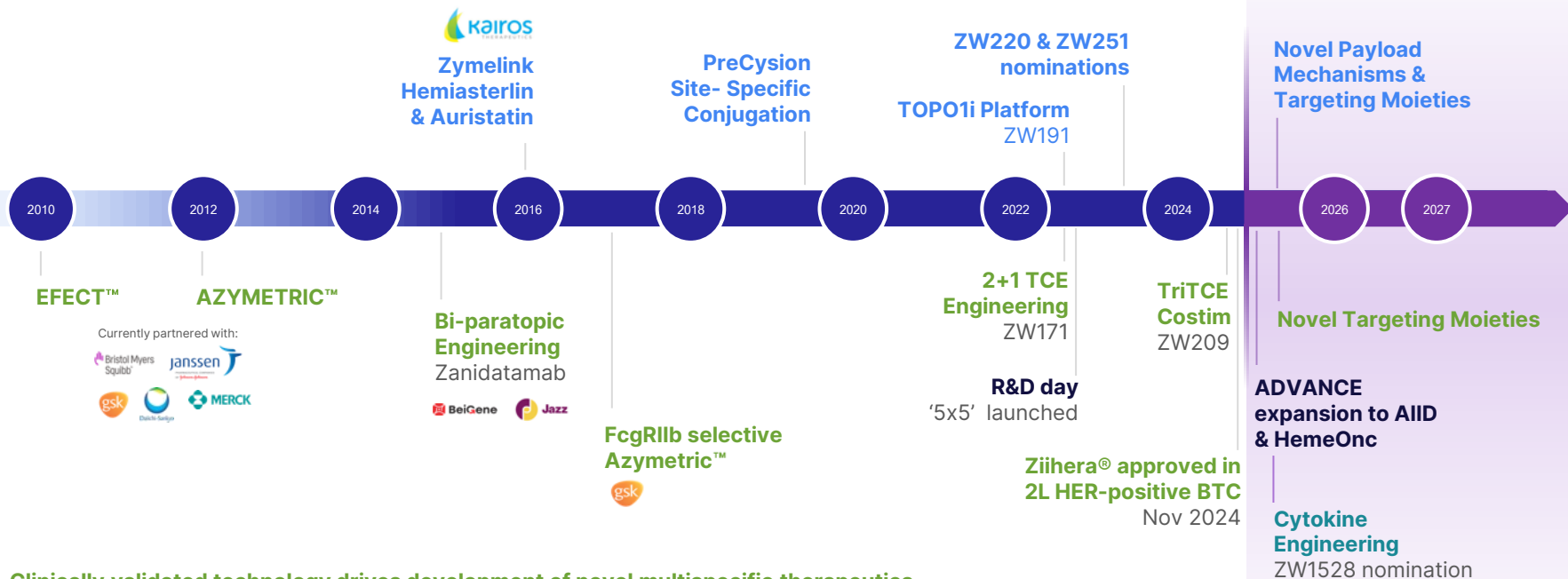
- **Robust leadership team** with decades of experience in drug discovery, development, and commercialization
- **Renowned scientists** and researchers in protein engineering, MSATs, and ADC technologies
- **Global scope**, operating across North America, Europe, and Asia
- **Productive and efficient organization** focused on transformative drug discovery with cash resources of approx. \$321.6M<sup>1</sup>

# Differentiated Pipeline of Multifunctional Therapeutics

Program	Technology	Target	Indication	Discovery	Preclinical	Phase 1	Phase 2	Phase 3
Solid Tumor Oncology: Antibody-Drug Conjugates (ADC)								
ZW191 Topo1i ADC   DAR 8   Fc WT	ZD06519 Payload	FRα	Gynecological Thoracic	<div>NCT06555744</div>				
ZW220 Topo1i ADC  DAR 4   Fc Mut	ZD06519 Payload	NaPi2b	Gynecological Thoracic	<div></div>				
ZW251 Topo1i ADC   DAR 4   Fc WT	ZD06519 Payload	GPC3	Digestive System (HCC)	<div></div> Anticipated IND mid 2025				
Solid Tumor Oncology: Multispecific Antibody Therapeutics (MSAT)								
Zanidatamab Bispecific	Azymetric™	HER2	Multiple indications	<div>Development partners: Jazz Pharmaceuticals and BeiGene</div>				
ZW171 Trivalent TCE   2+1 Format	Azymetric™ Novel anti-CD3	MSLN x CD3	Gynecological Thoracic	<div>NCT06523803</div>				
ZW209 Trispecific TCE   Tri-TCE Costim	Azymetric™ Novel anti-CD3 Conditional CD28	DLL3 x CD3 x CD28	Thoracic	<div></div> Anticipated IND 1H 2026				
ZW239 Trispecific TCE   Tri-TCE Costim	Azymetric™ Novel anti-CD3 Conditional CD28	CLDN18.2 x CD3 x CD28	Digestive System	<div></div>				
Autoimmune & Inflammatory Diseases								
ZW1528 Dual Cytokine Blocker	Azymetric™ Hetero-Fab   YTE	IL4Rα x IL-33		<div></div> Anticipated IND 2H 2026				
ZW1572 Dual Cytokine Blocker	Azymetric™ Hetero-Fab   YTE	IL4Rα x IL-31		<div></div>				

# 10+ Years of Pioneering Multifunctional Antibody Development

Leading the development of next generation antibody-drug conjugates



Clinically validated technology drives development of novel multispecific therapeutics

BTC: biliary tract cancer; TCE: t cell engager; TOPO1i: topoisomerase 1 inhibitor; 2L: second-line.

# Recent Accomplishments and Near-Term, Upcoming Milestones

## 5+ Strategic Partnerships

### Collaborating with industry leaders to accelerate impact

Extended the reach of therapeutic candidates, while **validating our innovative approach** through strategic partnerships with companies including Jazz, BeiGene, GSK, and others.

## 1 Internally Developed FDA Approved Drug

### Ziihera® (zanidatamab-hrII) (HER2 bispecific antibody)

Licensed to Jazz and BeiGene

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**2L BTC (IHC3+)** U.S. FDA Approval

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**Phase 3 1L BTC** confirmatory trial ongoing

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**Phase 3 1L GEA** top-line PFS readout expected 2H25

## 6 Nominated Wholly-Owned Candidates

### Multiple Modalities and Therapeutic Areas

**2 Clinical Stage Assets in Phase 1 Trials:** ZW171 & ZW191

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**1 IND Planned in 2025:** ZW251

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**2 INDs Planned in 2026:** ZW209 & ZW1528

# Strategic Priorities for 2025 and 2026



## Build a diverse and differentiated pipeline

Expand solid tumor portfolio with an emphasis on digestive system cancers

Expand R&D portfolio into hematology oncology and AIID

Maintain balanced R&D investment across wholly-owned clinical candidates and preclinical research



## Become a leading, global biotech focused on targeted therapies

Enable preclinical, clinical, and TMO groups to manage portfolio of candidates across expanded focus areas

Maintain and potentially expand R&D portfolio through strategic partnering efforts

Continue to build pipeline of new product candidates with validated, strong target profiles



## Invest in our people, culture & society

Harness global presence rooted in R&D to foster continued innovation in our patient communities

Maintain an efficient, financially/socially responsible, and productive organization

Enhanced optionality for partnerships and collaborations to share capital and development risk

Use strength of balance sheet to grow and broaden wholly-owned pipeline and next-generation technologies

## Focused Therapeutic Areas Provide Diversity to R&D Portfolio and Enhanced Optionality for Partnering and Retained Product Rights

### Solid Tumors

- Gynecological cancers
- Thoracic cancers
- Digestive system cancers

### Hematological Cancers

- AML
- Multiple myeloma
- Lymphoma

### Autoimmune & Inflammatory Disease

- Respiratory diseases
- Rheumatoid arthritis
- Inflammatory bowel diseases



# Zanidatamab: \$2B+ Peak Sales Potential\*

The approval of Ziihera® is the result of over a decade of groundbreaking research and development at Zymeworks

## 01 Entering market first in BTC with U.S. FDA Approval

- Ziihera® now approved in the U.S. for the treatment of adults with previously treated, unresectable or metastatic HER2+ (IHC3+) 2L BTC. Jazz Pharmaceuticals initiated U.S. launch activities.
- EMA validated MAA; potential approval as early as 2Q 2025
- The CDE NMPA in China has accepted the BLA for zanidatamab for 2L BTC
- Confirmatory Phase 3 trial initiated in 1L BTC

## 03 Expanded opportunity across lines of Breast Cancer (BC)<sup>1</sup>

Expanded opportunity across lines of therapy:

- Post T-DXd (Ph3 EmpowHER trial)
- Early lines of therapy (neoadjuvant)
- Novel combinations<sup>1</sup>

Ongoing trials in early breast cancer:

- I-SPY2 Trial (NCT01042379)
- MD Anderson collaboration

## 02 Path to approval in 1L GEA with sBLA with top-line results estimated 2H 2025

- HER2+/PD-L1 negative: opportunity to address unmet need and replace trastuzumab<sup>1</sup>
- HER2+/PD-L1 positive: opportunity to replace trastuzumab as HER2-targeted therapy of choice<sup>1</sup>
- Opportunity to explore potential in neoadjuvant populations<sup>1</sup>

## 04 Broad potential beyond BTC, GEA, and mBC in multiple HER2-expressing indications<sup>2</sup>

- |               |  |
|---------------|--|
| • Colorectal  | • Salivary Gland                         |
| • NSCLC       | • Ampullary                              |
| • Ovarian     | • And other HER2-expressing solid tumors |
| • Endometrial |  |
| • Pancreatic  |  |
| • Bladder     |  |

## Strong Track Record of Meaningful Commercial Partnerships

- ✓ Licensing agreement with **Jazz Pharmaceuticals** to commercialize Ziihera in U.S., EU, Japan, India, and all other non-APAC territories

*Eligible for up to \$500M in regulatory milestones and \$862.5M in commercial milestones*

- ✓ Licensing agreement with **BeiGene** to commercialize Ziihera in APAC (except Japan and India)

*Eligible for up to \$164M in development and commercial milestones*

- ✓ Tiered royalties between 10-20% from Jazz and from the high single digits to 19.5% from BeiGene sales (up to 20% when royalty reduction of 0.5% reaches cap in the low double-digit millions of dollars)

# Azymetric™: Adaptable to Different Formats and Applications

## Engineering

Set of transferable mutations supporting pure and stable Fc heterodimer formation with exclusive chain pairing during co-expression

Libraries of constant domain Fab mutations available for kappa/kappa, kappa/lamda and lambda/lambda bispecific LC combinations

## Flexibility

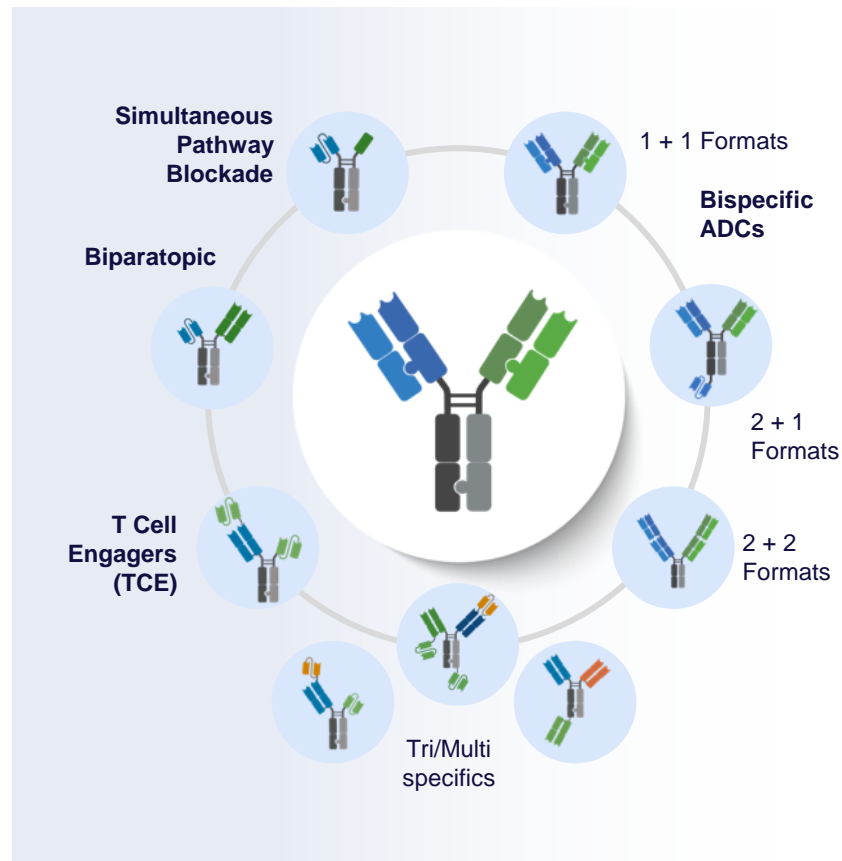
Can employ novel or existing antibody paratopes; human (IgG1, IgG2A, IgG4) and mouse frameworks; other CH2 and glyco-engineering approaches. Compatible with linker/payload conjugation

## High-throughput Screening

Best-in-class activity requires screening of alternative targets, epitopes, sequences, target engagement geometries, and mechanisms of action (blocking, lytic, ADC)

## Highly Manufacturable

Antibody like yields/stability; leveraged by multiple pharma/biotech with various clinical stage programs in development



# Advancing Our Next-Generation Technology in Challenging Diseases



## Antibody-Drug Conjugates

### Novel Payload Discovery

- Our hypothesis on ADC mechanism guides our approach to novel payload discovery
- Four novel payload mechanisms in discovery to help innovation beyond TOPO1i and auristatin platforms

### Optimal Antibody Formats

- Multi-pronged strategy to discover antibodies with enhanced ADC properties
- Antibody format (monospecific, biparatopic, or bispecific) dictated by target characteristics

### Therapeutic Application

- Target, payload mechanism, and antibody format selected for enhanced activity in disease indication



## Multispecific Antibody Therapeutics

### Advanced Protein Engineering Solutions

- FDA approved, clinically validated, and novel engineering solutions enable plug and play building blocks to address complex biological challenges
- Flexibility of Azymetric™ facilitates high throughput multiparameter antibody screening to identify molecules with the desired biology

### Addressing Biological Challenges in Indications with High Unmet Need

- Designing next generation T cell engagers to overcome biological challenges not addressed with traditional bispecific T cell engagers

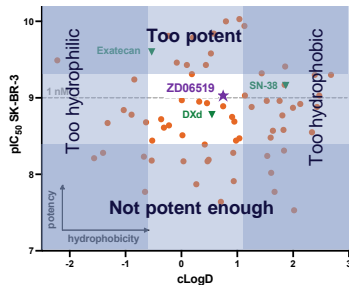
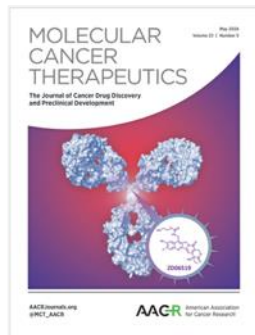
### Driving the Forefront of Next Generation T cell Engagers

- Enhancing functionality and specificity to drive deep and durable responses in difficult to treat tumors
- Plug and play platforms enable fast development to rapidly address patient need

**Continued execution against 2027+ IND application strategy**

# Zymeworks Topoisomerase ADC Platform Exemplifies Our Philosophy and Enables Our Pipeline

## Antibody-Drug Conjugates



### Payload synthesis & screening

~100 payloads prepared and tested in vitro

### ADC in vitro potency

In vitro potency: target-dependency and bystander activity

### Conjugation of select payloads

Payloads conjugated as DAR4 and DAR8, multiple mAbs

### In vivo efficacy & PK

Robust efficacy in multiple CDX and PDX models

### ADC characterization

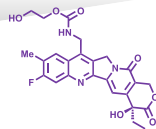
ADC properties: monodispersity, plasma stability, hydrophilicity

### NHP toxicology & TK

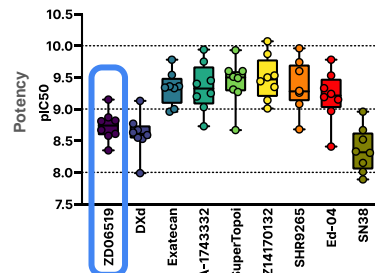
MTD in NHPs: DAR8: ≥30 mg/kg, DAR4: ≥120 mg/kg

### Lead selection and application

ZD06519



- Moderate potency to enable higher ADC dose
- Bystander active
- ZW191 first in human trial (NCT0655574)
- ZW251 expected to enter clinic in 2025



# Zymeworks' Engineering Approach: Key Expertise in Format and Geometry Screening to Identify Differentiated Activity



**Potential best-in-class activity** requires screening of epitopes, affinities and target engagement geometries

**Unique flexibility of Azymetric™** enables format and affinity optimization for potential best-in-class attributes

**Discovery of unique biology** and differentiation to combination approaches

## Multispecific Antibody Therapeutics

### Biparatopic

#### Zanidatamab

Optimization of affinity and format for highest biparatopic activity

Unique biparatopic MOA

Superior activity to combination



### Multi-Cytokine Blocker

#### ZW1528 (IL4Rα x IL33)

IgG-like format, manufacturability and PK

IL4Rα and IL33 blockade equivalent to bivalent benchmarks

Unique bispecific activity, potentially superior to combination



### 2+1 TCE

#### ZW171 (2+1 MSLN TCE)

Avidity optimization to prevent normal tissues tox

Avidity and format optimization to not bind shed MSLN

Synapse optimization for high activity with minimal cytokine release



### Trispecific T Cell Engager

#### ZW209 (CD28 TriTCE)

Discovery of novel format to prevent non-specific T cell activation

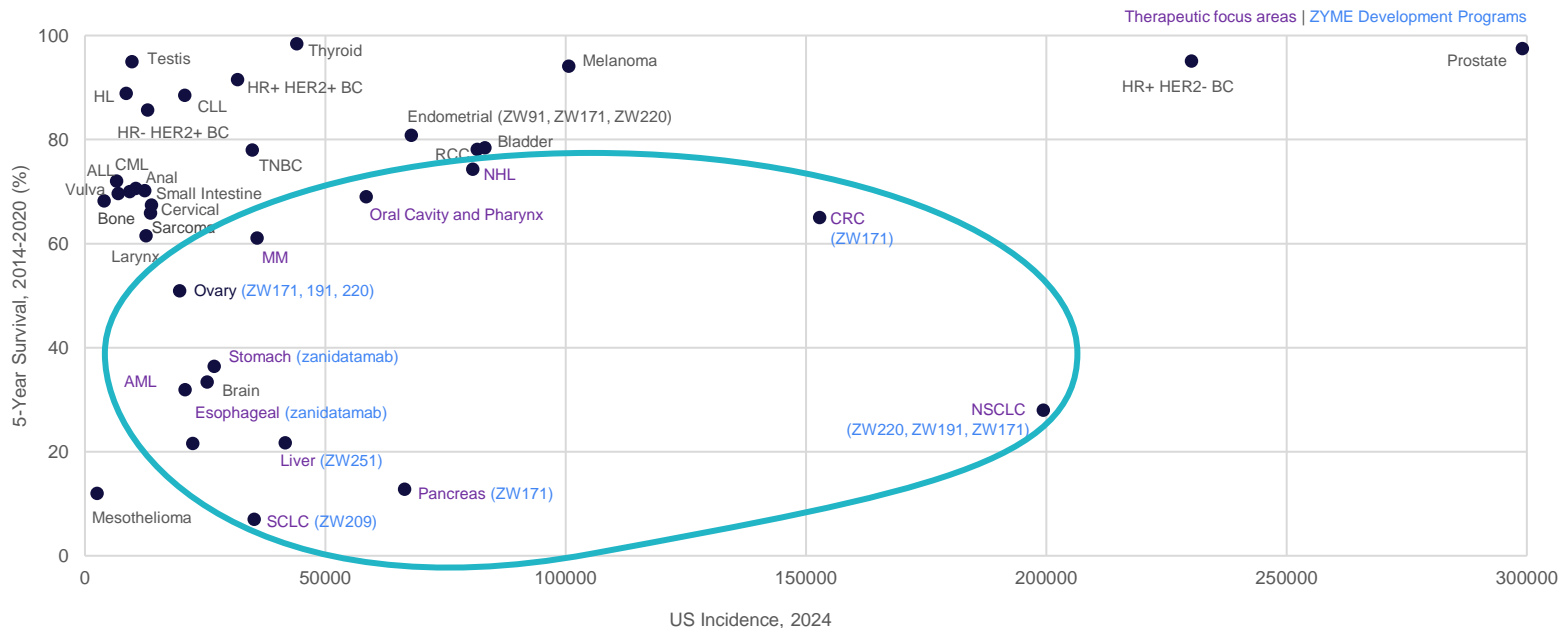
Conditional CD28 activation

Synapse optimization for balanced Signal 1 plus Signal 2



Increased Complexity

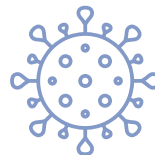
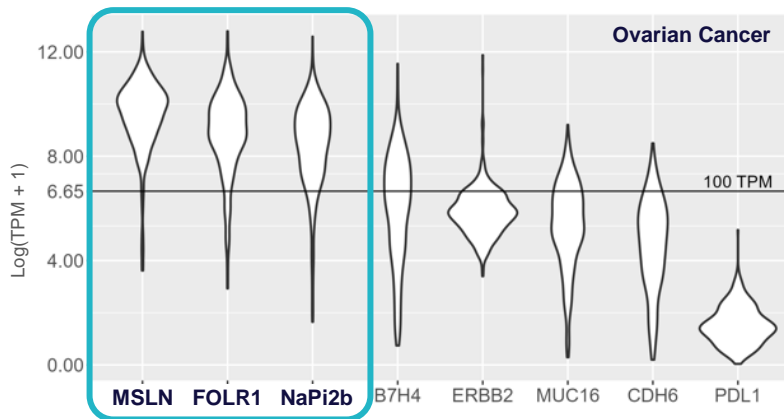
# Maintain Focus on Cancers with Highest Unmet Medical Need: Increase GI Tract and Thoracic Cancer Coverage and Expand to Heme-Onc Cancers



# Target Selection Driven by Expression Profile, Biology and Clinical Precedence

Selection of an ADC or TCE strategy is driven by target expression, biology including internalization rate, clinical precedence and differentiation to prior therapeutic programs

mRNA Expression Profile of Select Cancer  
Target in Ovarian Cancer (N=421)



A balanced portfolio of ADCs targeting clinically validated FR $\alpha$  and NaPi2b, along with a T cell engager targeting MSLN, ensures comprehensive coverage and risk mitigation for ovarian cancer and NSCLC, **providing a diversified therapeutic focus on ovarian and lung cancers.**

**MSLN, FOLR1 and NaPi2b are each expressed at higher level than other targets pursued in ovarian cancer or NSCLC**



# ZW171

Bispecific Antibody Designed to Target Gynecological, Thoracic, and Digestive System Cancers

Initiated Phase 1 clinical trial in 2H 2024 (NCT06523803)

## Optimized Design<sup>1</sup>

- T cell-engaging bispecific antibody for the treatment of MSLN-expressing solid tumors, built with Azymetric™.
- Unique geometry: Two single-chain fragment variable arms targeting MSLN; one Fab arm targeting the CD3 component of the T cell receptor, redirecting the body's immune system to fight cancer cells.

## Differentiated Profile<sup>1</sup>

- Enhanced anti-tumor activity and safety profile in preclinical models supports opportunity to overcome clinical limitations of prior MSLN-directed therapies.

## Significant Patient Need

- Strong expression of MSLN in ovarian cancer (~84%) and moderate to strong expression in NSCLC (~36%).<sup>2</sup>
- In the U.S. in 2024<sup>3</sup>:
  - 19K+ new cases of ovarian cancer
  - 234K+ new cases of lung cancer
  - 353K+ new cases of digestive system cancers

MSLN: mesothelin; NSCLC: non-small cell lung cancer; scFV: single-chain variable fragment.

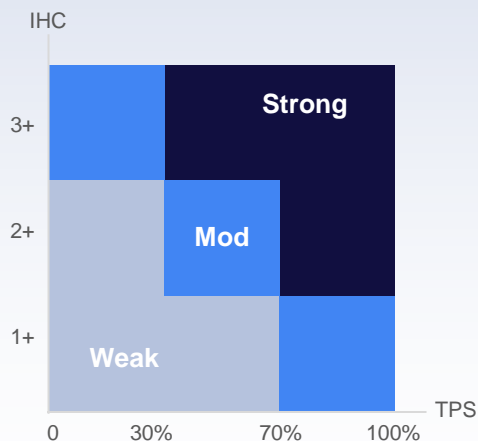
1. Afacan N et al., Abstract #2942 presented at AACR 2023.

2. Weidemann, S. et al. Biomedicine 2021, Apr 7;9(4):397.

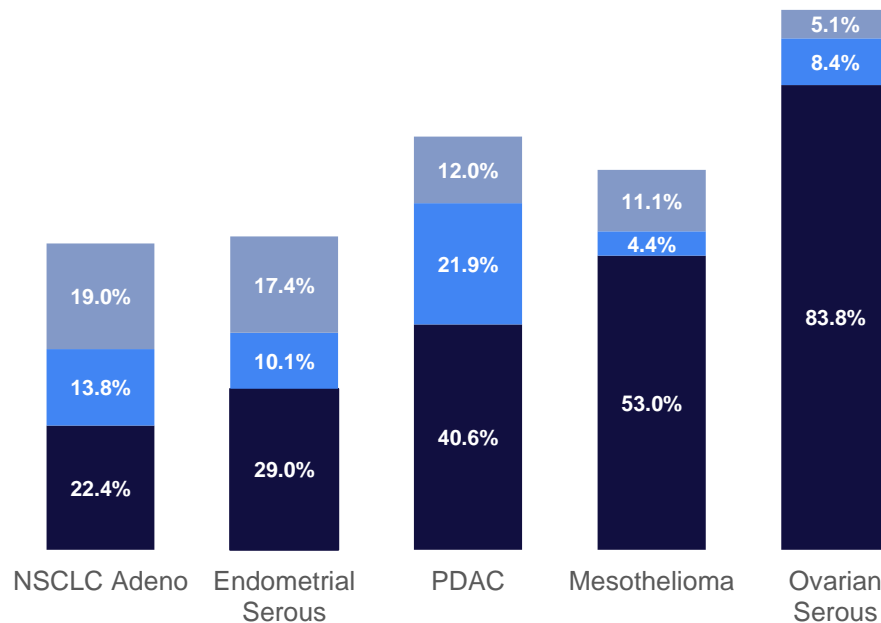
3. <https://acsjournals.onlinelibrary.wiley.com/doi/10.3322/caac.21820>



# ZW171: Mesothelin Expression Is Frequent in Ovarian Cancer, Endometrial Cancer, NSCLC, PDAC, and Other Malignancies



Proportion of Patients with MSLN+ Tumors (%)



# ZW171 Exhibits a Wider Therapeutic Window Compared to Next Gen MSLN TCEs

- Enhanced tumor selective cytotoxicity
- No targeting of normal tissues
- Low affinity CD3 binding to mitigate peripheral T cell binding and cytokine release
- Maintains potency in the presence of soluble MSLN

ZW171



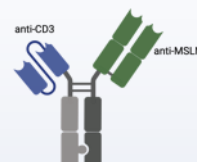
2 + 1

CT95<sup>1</sup>  
(LNK101)



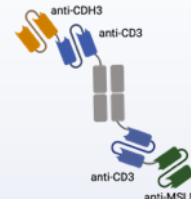
2 + 2

JNJ-79032421<sup>2</sup>



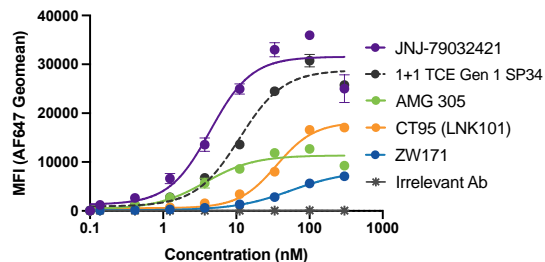
1 + 1

AMG 305<sup>3</sup>

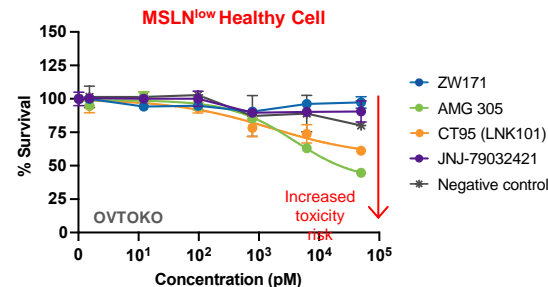
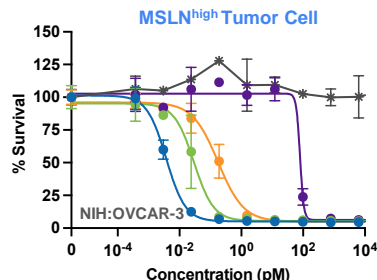


1 + 1 + 2

## Low Binding to T cells

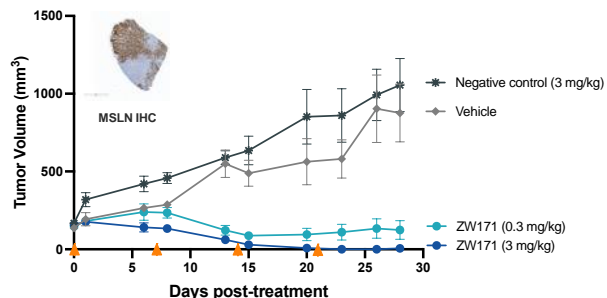


## Potent Cytotoxicity in MSLN<sup>high</sup> Tumor Cells but not Normal Cells



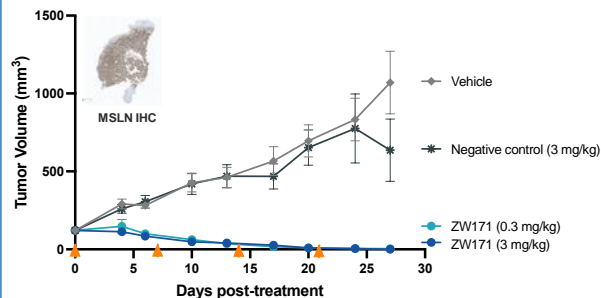
# ZW171: Mediates Strong Anti-Tumor Activity in Patient-derived Models

## Patient-derived NSCLC Humanized Mouse Model



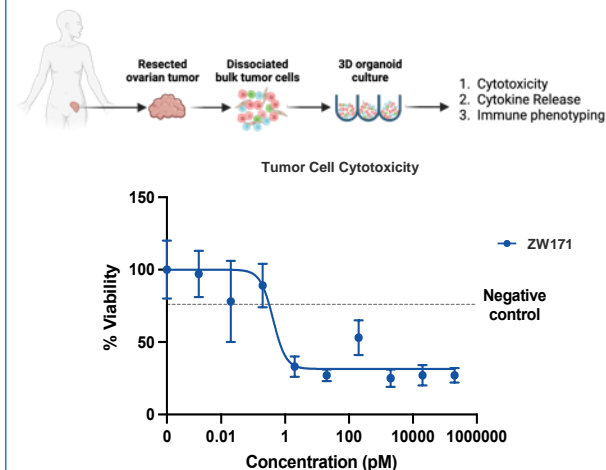
CD34 engrafted mice were engrafted with CTG-2579. When tumors reached 100-200 mm<sup>3</sup>, mice were dosed i.v. QW x4 with ZW171 at 3 or 0.3 mg/kg, the neg control (H4CD3) at 3 mg/kg, or vehicle (H6Su).

## Patient-derived Pancreatic Cancer Humanized Mouse Model



CD34 engrafted mice were engrafted with CTG-1375. When tumors reached 100-200 mm<sup>3</sup>, mice were dosed i.v. QW x4 with ZW171 at 3 or 0.3 mg/kg, the neg control (H4CD3) at 3 mg/kg, or vehicle (H6Su).

## Ovarian Cancer Model Leveraging Endogenous Tumor T cells



3D patient-derived ovarian carcinoma organoids were generated, and ZW171 activity assessed using Kiyatec proprietary technologies (Lassahn, 2023). Following incubation of organoids with ZW171 for 72hr, tumor cell viability was assessed using a CellTiter-Glo 3D (Promega) assay.

# ZW171 Global Phase 1 Study in MSLN-Expressing Solid Tumors (NCT06523803)

USA

**USA**

FDA IND Approval  
Sites Activated

UK

**United Kingdom**

MHRA CTA Approval  
Sites Activated

DEU

**Germany**

EU CTA Approval  
Sites Activated

SK

**South Korea**

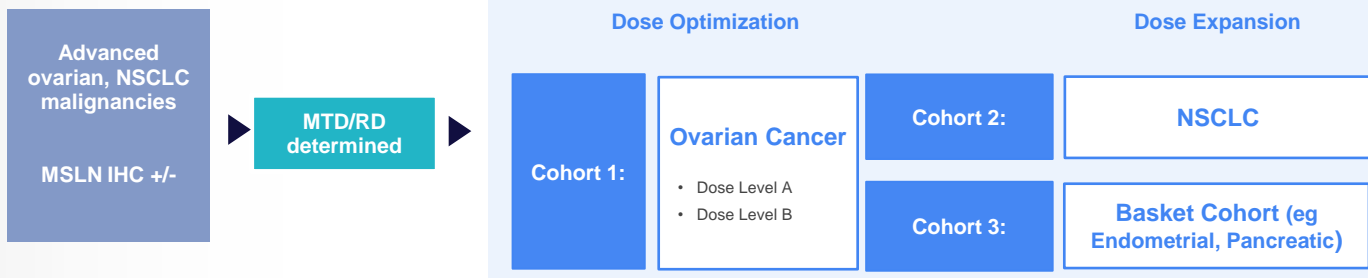
MFDS CTA Approval  
Site Activated

## Open-label, FIH, dose-escalation study

### Part 1: Dose Escalation

N= ~160

### Part 2: Dose Optimization and Expansion



Eligibility/Screening Assessments  
(occur within 28 days prior to Cycle 1  
Day 1)

Screening

21-Day DLT Observation Period

Treatment Period

Every 6 or 9 Weeks

CT/  
MRI

Follow-up 30 days post  
last dose of ZW171

Follow-up

Treatment until disease progression, unacceptable toxicity, or withdrawal of consent



# ZW191

ADC Designed to Target  
FR $\alpha$ -Expressing Tumors

Initiated Phase 1 clinical trial  
in 2H 2024 (NCT06555744)

## Optimized Design<sup>1</sup>

- ADC targeting FR $\alpha$  -expressing tumors including ovarian cancer, other gynecological cancers, and NSCLC.
- Comprised of a humanized IgG1 antibody conjugated to a novel camptothecin-based topoisomerase 1 inhibitor payload technology, ZD06519.
- Drug-to-antibody ratio ~8.
- Validated peptide cleavable linker sequence.

## Differentiated Profile

- Differentiated anti-tumor activity in preclinical tumor models with a breadth of FR $\alpha$  expression.<sup>1</sup>
- Favorable safety profile in nonhuman primate (NHP) toxicology studies.<sup>1</sup>
- Favorable PK and is well-tolerated in NHP at exposure levels above those projected to be efficacious.
- Opportunity to treat broader range of FR $\alpha$ -expressing cancers.

## Significant Patient Need

- FR $\alpha$  is found in ~75% of high-grade serous ovarian carcinomas<sup>2</sup> and ~70% of lung adenocarcinomas.<sup>3</sup>

1. Lawn S et al. Abstract # 2641 Presented at AACR 2023.

2. Köbel, M., Madore, J., Ramus, S. et al. Br J Cancer 111, 2297–2307 (2014).

3. O'Shannessy DJ, et al., Oncotarget. 2012 Apr; 3(4):414–25.

# FR $\alpha$ -expressing Cancers Represent a Significant Commercial Opportunity<sup>1-7</sup>

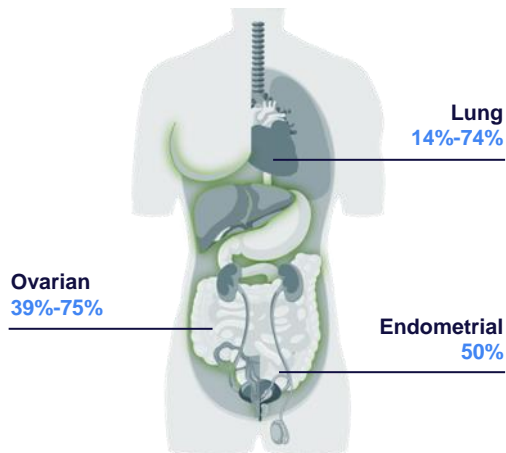
## Potential first and best-in-class in

FR $\alpha$ -high endometrial, NSCLC, TNBC, and FR $\alpha$ -mid/low solid tumors

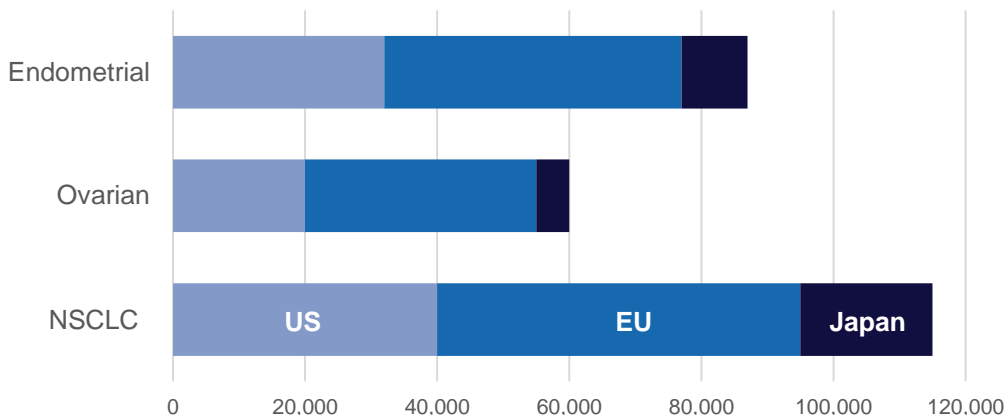
## Potential best-in-class opportunity in

FR $\alpha$ -high ovarian cancer

### FR $\alpha$ -Expressing Cancers

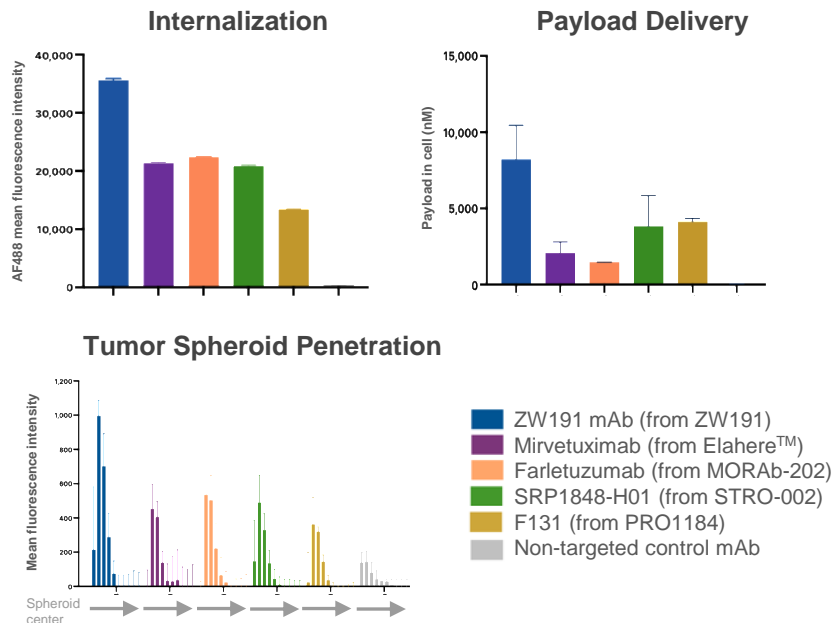


### Estimate of Newly Diagnosed FR $\alpha$ + Patients In Key Indications



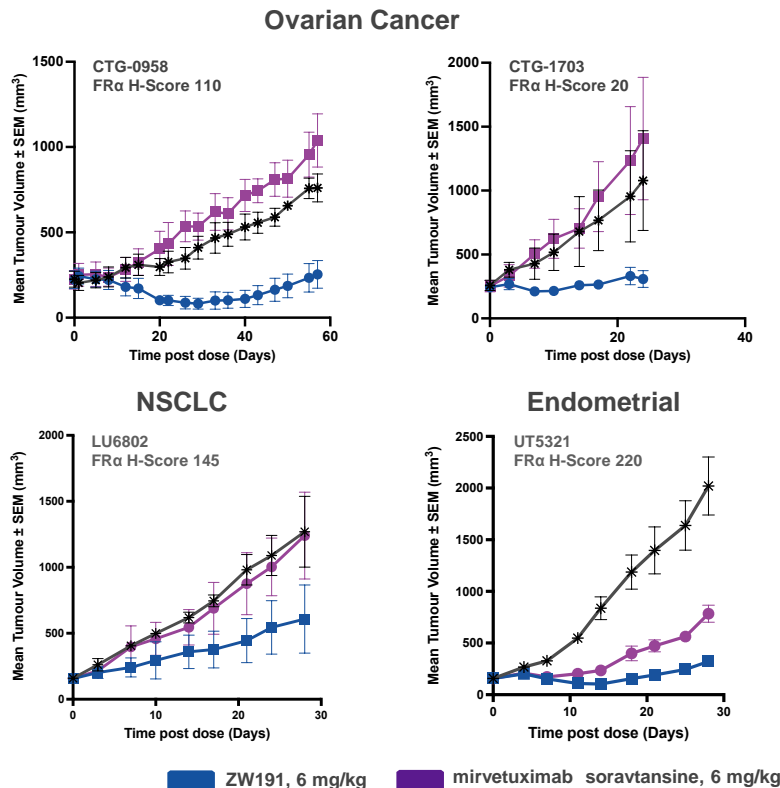
# ZW191: Key Design Considerations

## ZW191's Novel mAb Drives Superior Internalization, Payload Delivery, and Tissue Penetration



Internalization of AF488 labelled antibodies to KB-Hela cells after 24 hrs at 100 nM; Mass-spec. quantification of internalized payload following 24-hour treatment of IGROV-1 cells with 10 nM of ADCs comprising ZW191 mAb or other FR $\alpha$ -targeted mAbs conjugated to auristatin payload; Tumor spheroid penetration of AF488 labelled antibodies as quantified by high content imaging of spheroid layers at 24 hours post-treatment at 50 nM.

## Anti-tumor Activity Across Multiple Tumor Types And Range of FR $\alpha$ Expression (PDX models)



# Differentiation is Critical for ZW191 in the Competitive FR $\alpha$ ADC Space for TOPO1i

## A novel design to target FR $\alpha$

### 1 Potential best-in-class antibody

The ZW191 antibody was selected for enhanced internalization, payload delivery, and tumor penetration.<sup>1</sup>

### 2 Topoisomerase I inhibitor (TOPO1i) payload mechanism

TOPO1i containing ADCs have proven to be an effective mechanism to treat ovarian cancers.<sup>2,3</sup>

### 3 Moderate payload potency

A moderate potency TOPO1i payload (ZD06519) was selected for ZW191 to enable a higher protein dose, which may be advantageous for target engagement, tumor penetration, and drug exposure.<sup>5</sup> Exatecan is 3-10X more potent than the ZW191 payload.

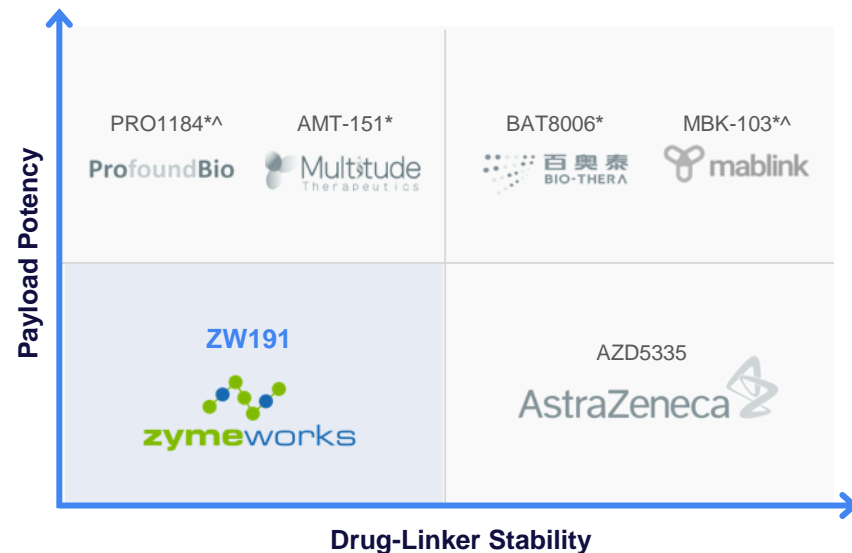
### 4 Moderate antibody-linker stability

A 'designed instability' approach was taken with ZW191; all approved ADCs feature an element of linker instability.<sup>4</sup>

### 5 Strong bystander activity

Strong bystander activity is beneficial when treating tumors with low and heterogenous expression of FR $\alpha$ .<sup>1</sup>

The balance between **drug-linker stability** and **payload potency** differentiates ZW191 from other FR $\alpha$ -TOPO1i ADCs

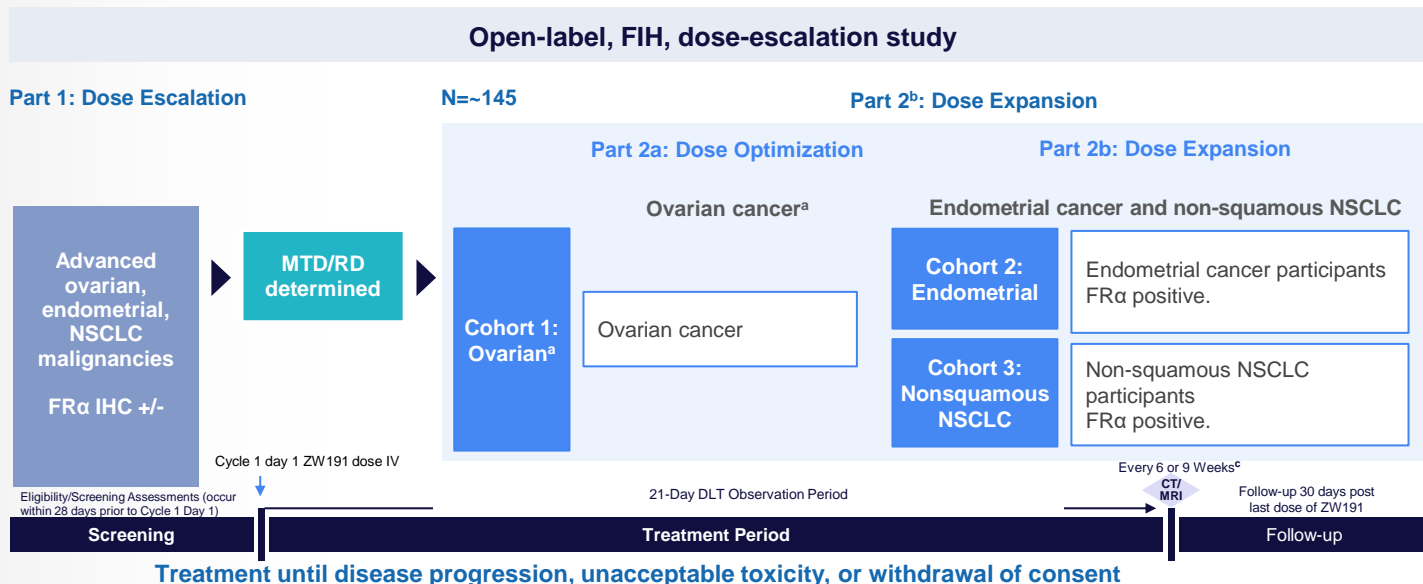


\* Denotes use of exatecan payload | ^ Denotes use of Fc-silenced antibody



# ZW191: Global Phase 1 Study in FR $\alpha$ -Expressing Solid Tumors (NCT06555744)

<b>USA</b>	<b>USA</b> FDA IND Approval Sites Activated
<b>JPN</b>	<b>Japan</b> PMDA CTN Approval Sites Activated
<b>AU</b>	<b>Australia</b> TGA CTA Approval Sites Activated
<b>SK</b>	<b>South Korea</b> MFDS CTA Approval Sites Activated
<b>SGP</b>	<b>Singapore</b> HSA CTA Approval Sites Activated



<sup>a</sup>Ovarian cancer includes primary peritoneal and fallopian tube cancers. <sup>b</sup>Part 2 will be initiated at dose levels (RDEs) based on the SMC's comprehensive analysis of safety, tolerability, clinical PK, PD, and preliminary antitumor activity data from Part 1. The Part 2 selected doses will be decided at SMC meetings and could be the MTD or RDEs based on comprehensive analysis of safety, tolerability, clinical PK, PD, and antitumor activity data from Part 1. The RDE dose levels may vary across the tumor types in Cohorts 1, 2, and 3. <sup>c</sup>Timed from cycle 1 day 1. Q6W (every 6 weeks) for the first 4 assessments and then Q9W (every 9 weeks) thereafter. ClinicalTrials.gov ID: NCT06555744. CT/MRI: computed tomography/magnetic resonance imaging; DLT: Dose Limiting Toxicity; FIH: First-in-human; FR $\alpha$ : folate receptor alpha; IHC: immunohistochemistry; IV: intravenous; MTD: maximum tolerated dose; NSCLC: non-small cell lung cancer; RD: Recommended Dose.



## ZW251

ADC Designed to Target  
Glypican 3-Expressing  
Hepatocellular Carcinoma  
(HCC)

Expected IND filing by mid-2025

### Optimized Design

- Potential first-in-class ADC designed to treat GPC3-expressing HCC with a new MOA
- Composed of a humanized IgG1 antibody conjugated to a novel camptothecin-based topoisomerase 1 inhibitor, ZD06519
- Intermediate drug-to-antibody ratio ~4
- Validated peptide cleavable linker sequence

### Differentiated Profile

- Strong preclinical activity in models with a breadth of GPC3 expression<sup>1</sup>
- Exhibited comparable PK to a clinical-stage antibody comparator; PK unaffected by conjugation
- Noteworthy tolerability and no mortality observed in a repeat dose NHP toxicology study up to 60 mg/kg (DAR 8) or 120 mg/kg (DAR 4)

### Significant Patient Need

- GPC3 is expressed in 76% of HCC, with high expression observed in ~55% of HCC<sup>2</sup>
- HCC is the most common type of primary liver cancer and the third leading cause of cancer deaths globally<sup>1</sup>

1. <https://www.cancer.gov/types/liver/what-is-liver-cancer/causes-riskfactors#:~:text=Worldwide%2C%20liver%20cancer%20is%20the,the%20incidence%20of%20HBV%20infection>

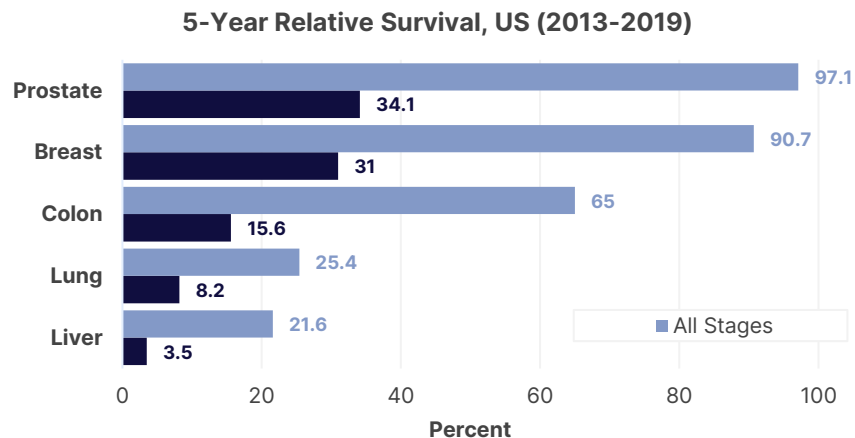
2. Wang HL et al., Arch Pathol Lab Med 2008; 2.Madera L et al., Abstract #2658 presented at AACR 2023.

ADC: Antibody Drug Conjugate; DAR: Drug to antibody ratio; GPC3: Glypican-3; HCC: Hepatocellular Carcinoma; NHP: Non-human Primates; PK: Pharmacokinetics.

# HCC Epidemiology and Current Treatment

## HCC Burden

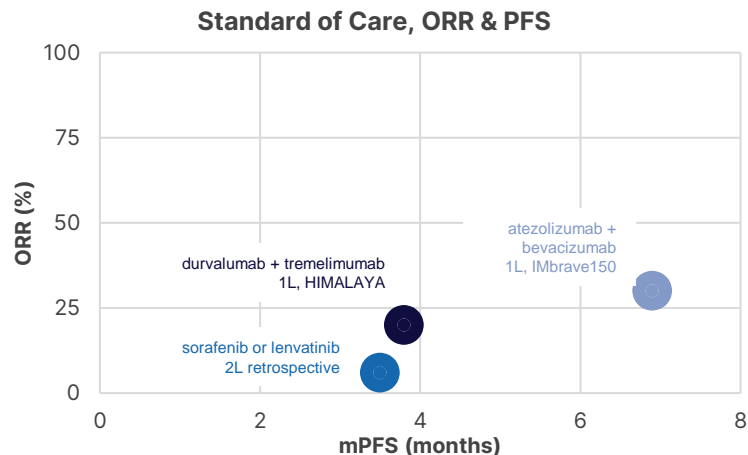
- Globally 6<sup>th</sup> most common cancer and third most common cause of death from cancer



WHO. International Agency of Cancer Research. Cancer Today. 2020. Available at: <https://gco.iarc.fr/today/home>. Accessed October 2023  
SEER. Cancer Stat Facts. National Cancer Institute. Available at <https://seer.cancer.gov/statfacts/>

## Standard of Care for Systemic HCC

- In the US, most patients receive IO-VEGF or IO-IO combinations in 1L; multi-targeted TKIs are a 2L option



Finn RS et al NEJM 2020; Abou-Alfa GK et al NEJM Evid 2022; Yoo C et al Liver Cancer 2021

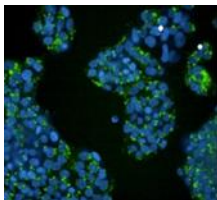
As a first-in-class TOPO1-based ADC for HCC, ZW251 offers the potential of a **new MOA** for patients, and an **opportunity to improve upon the current standard of care**

# ZW251: Potential Utility in Hepatocellular Carcinoma

On track for clinical studies in mid-2025

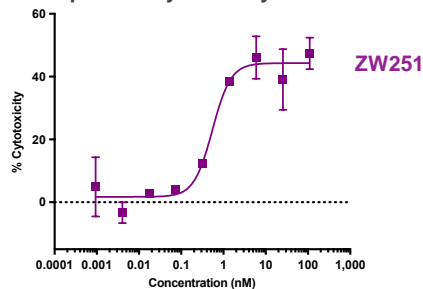
## Robust ADC Internalization and Cytotoxicity

ZW251 internalized in HCC cell line



Internalization visualized after 24-hour treatment

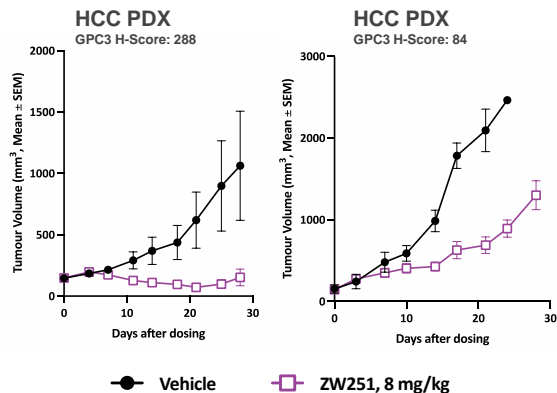
## Tumor spheroid cytotoxicity in HCC cell line



Cytotoxicity assessed by cell line spheroids (treatment over 4 days)

## Differentiated Modality Demonstrates Anti-tumor Activity

Anti-tumor activity of ZW251 against hepatocellular carcinoma patient derived xenografts expressing high and low GPC3

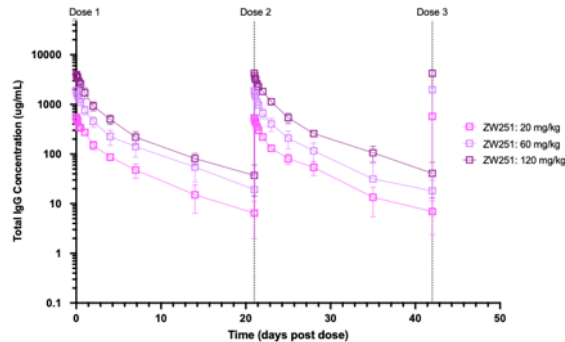


## Impressive Tolerability and Dose-proportional PK in NHP

Non-GLP toxicology study in non-human primates dosed 3 times every 3 weeks

Dose	MTD	T <sub>1/2</sub> (day)
20 mg/kg	≥ 120 mg/kg	4.6
60 mg/kg		4.8
120 mg/kg		5.4

## Total IgG in NHP serum





# ZW220

ADC Designed to Target  
NaPi2b-Expressing  
Ovarian Cancer and NSCLC

## Optimized Design<sup>1</sup>

- ADC targeting NaPi2b-expressing solid tumors
- Comprised of a humanized IgG1 antibody conjugated to a moderate potency topoisomerase I inhibitor payload technology with bystander activity, ZD06519
- Intermediate drug-to-antibody ratio ~4
- Validated peptide cleavable linker sequence
- FcγR silenced to potentially minimize toxicities driven by cellular uptake via FcγR

## Differentiated Profile

- Strong preclinical activity in models with a breadth of NaPi2b expression<sup>2</sup>
- Encouraging tolerability in repeat dose NHP toxicology studies<sup>1</sup>
- Desirable PK and is well tolerated at high doses
- First-in-class ADC potential for NaPi2b-expressing solid tumors

## Significant Patient Need

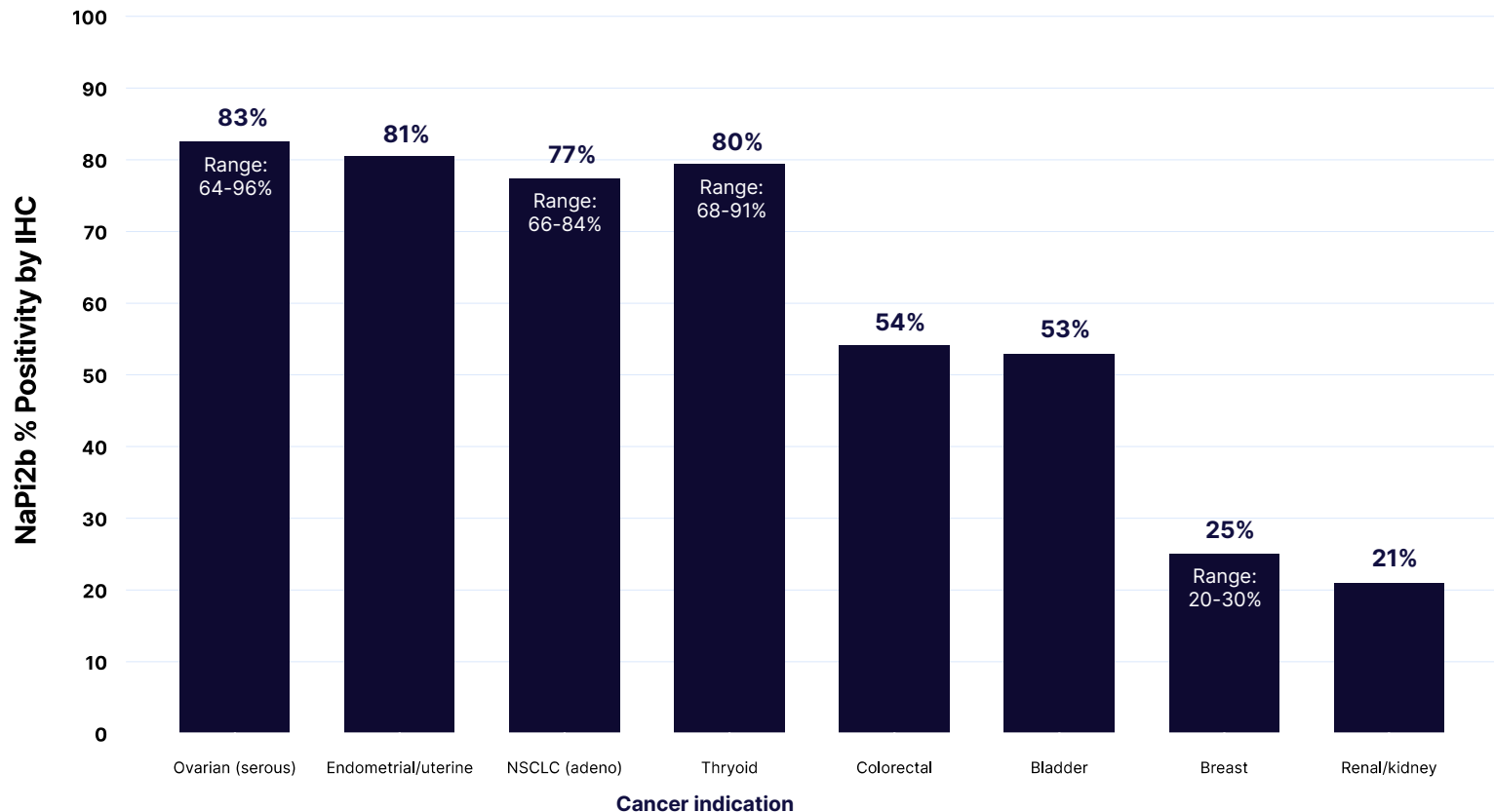
- NaPi2b is found in ~83% of ovarian serous adenocarcinomas<sup>2</sup> and ~77% of NSCLC adenocarcinomas<sup>2</sup>

1. Hernandez Rojas A et al., Abstract #1533 presented at AACR 2023.

2. Lin K, et al. Clin Cancer Res. 2015;21(22):5139-5150 (prevalence % based on 26 cases of ovarian serous adenocarcinomas and 31 cases of non-small cell lung adenocarcinomas).

ADC: Antibody Drug Conjugate; NaPi2b: Sodium-dependent phosphate transporter 2b; NHP: Non-human Primates; NSCLC: non-small cell lung cancer; PK: Pharmacokinetics

# NaPi2b is Overexpressed in Multiple Cancers with High Unmet Medical Need

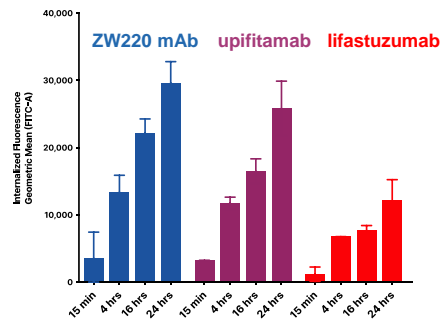


Ovarian  
1) Banerjee et al. 2023, ESMO #145  
2) Richardson et al. 2022, SGO #76  
3) Levan et al. 2017, BMC Cancer  
4) Lin et al. 2015, Clin Cancer Res  
5) Lopes dos Santos et al. 2013, PLoS One  
Endometrial/uterine  
1) Horsley et al. 2024, Cancer Res #5085  
NSCLC (adeno)  
1) Horsley et al. 2024, Cancer Res #5085  
2) Heynenmann et al. 2022, Clin Lung Cancer  
3) Yu et al. 2018, IASLC #12636  
4) Zhang et al. 2017, Tumor Biology  
5) Lin et al. 2015, Clin Cancer Res  
Thyroid  
1) Hakim et al. 2021, Anal Cell Pathol  
2) Lin et al. 2015, Clin Cancer Res  
Colorectal  
1) Liu et al. 2018, Biomed Pharmacother  
Bladder  
1) Ye et al. 2017, Cell Death Dis  
Breast  
1) Lopes dos Santos et al. 2013, PLoS One  
2) Kiyamova et al. 2011, Exp Oncol  
Renal/kidney  
1) Lopes dos Santos et al. 2013, PLoS One

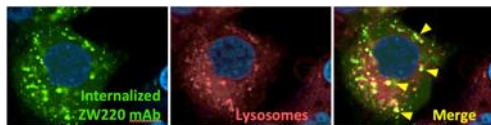
# ZW220: Potential Utility in Multiple Cancers

## ZW220 Efficiently Internalizes and Co-localizes with Lysosomes

ZW220 (mAb) internalization in Ovarian Cancer cell line

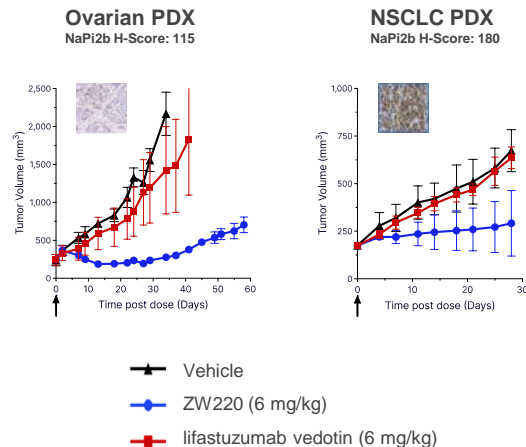


### Lysosomal trafficking of ZW220 mAb



## Anti-tumor Activity in Ovarian and Lung Cancer Models

Anti-tumor activity of ZW220 and lifastuzumab vedotin against ovarian and lung patient derived xenografts (PDXs) expressing NaPi2b

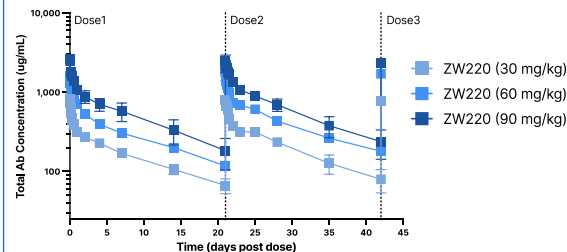


## Impressive Tolerability and Dose-proportional PK in NHP

Non-GLP toxicology study in non-human primates dosed 3 times every 3 weeks

Dose	MTD	T <sub>1/2</sub> (day)
30 mg/kg	≥ 90 mg/kg	10.3
60 mg/kg		9.8
90 mg/kg		8.0

### Total IgG in NHP serum



\*ZW220 Fc wt surrogate used in non-GLP NHP study

mAb: monoclonal antibody; PDX: patient derived xenograft; MTD: maximum tolerated dose; T<sub>1/2</sub>: half-life; GLP: good laboratory practice  
Hernandez Rojas A et al., Abstract #1533 presented at AACR 2023; Hernandez Rojas A et al. Presentation at World ADC 2023; Hernandez Rojas A et al. *Eur. J. Cancer* (2024), 211, 114535.



## ZW209

Trispecific T cell engager  
(TriTCE) Designed to Target  
DLL3-expressing Solid Tumors

On track for IND submission 1H 2026

### Optimized Design

- Potential first-in-class TriTCE that targets DLL3-expressing tumor cells, and CD3 and CD28 on T cells.
- TriTCE with potentially optimized TAA, CD3, CD28 binding affinity and geometry using Azymetric™ and EFECT™ platforms.
- Leverages obligate cis-T cell binding and conditional CD28 engagement to prevent unintended T cell activation, while enabling tumor-targeted cytotoxicity.

### Differentiated Profile

- Clean expression profile and absence of on-target, off-tumor side effects observed for DLL3 x CD3 bispecifics provides ideal TriTCE Co-stim target profile.
- Long term cytotoxicity at low effector to T cell ratios, increased T cell proliferation, survival, and anti-tumor activity with reduced cytokine release.
- Validated responsiveness of DLL3-expressing tumors to TCE modality.

### Significant Patient Need

- DLL3 is expressed on the surface of SCLC and other neuroendocrine tumors but rarely on the surface of normal cells.
- SCLC accounts for about 15% of all lung cancer diagnoses in the U.S. each year.<sup>1</sup>

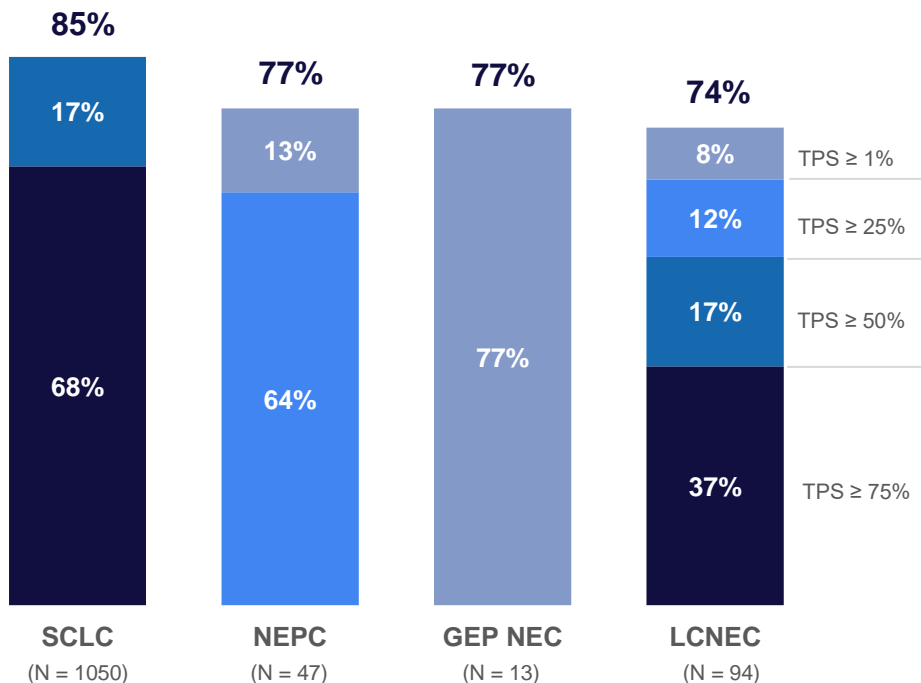
1. <https://www.yalemedicine.org/conditions/small-cell-lung-cancer#:~:text=There%20are%20two%20primary%20forms,and%20improving%20quality%20of%20life,DLL3: Delta-like ligand 3; SCLC: Small Cell Lung Cancer; TAA: tumor-associated antigen; TriTCE: Tri-specific T Cell Engager.>



# DLL3 is an Ideal Target to Evaluate TriTCE Co-stim Platform, with Opportunities in Multiple Cancers

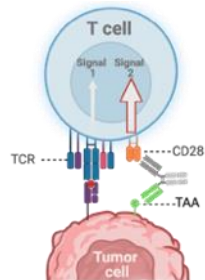
- Responsiveness of DLL3-expressing tumors to TCE modality validated with Imdelltra™ and other DLL3 bispecific TCEs; however, opportunity for improved responses remains
- DLL3 is expressed on the surface of SCLC and other neuroendocrine tumors but rarely on the surface of normal cells
- Clean expression profile and absence of on-target, off-tumor side effects observed for DLL3 x CD3 bispecifics provides ideal TriTCE Co-Stim target profile

Percentage of Patients with DLL3+ Tumors (%)



# CD28 Co-stimulatory T Cell Engager Approaches

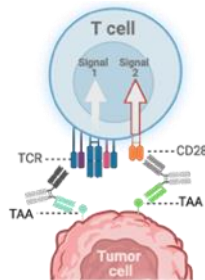
## Bispecific CD28 T cell Engagers



### CD28 x TAA +/- PD1

#### Limitations:

Initial clinical activity for CD28-TAA +PD1, but potential toxicity due to autoreactive T cells<sup>1</sup>

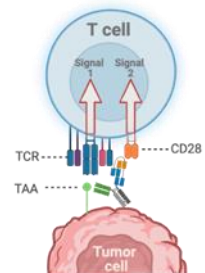


### CD28 x TAA + CD3 x TAA

#### Limitations:

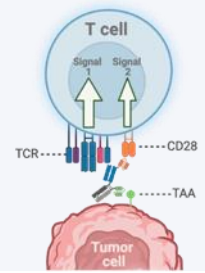
- Optimized for single agent activity and strong CD28 agonism, potential for similar toxicity to CD28-TAA and difficult to optimize by dose adjustment
- Exposure of two molecules at required dose levels potentially suboptimal

## Trispecific CD28 T cell Engagers



### First Generation:

- High affinity CD3 and CD28 superagonist paratopes<sup>2,3</sup>
- T cell binding, activation and TMDD observed in periphery<sup>2,3</sup>
- Target-independent activity and T cell activation



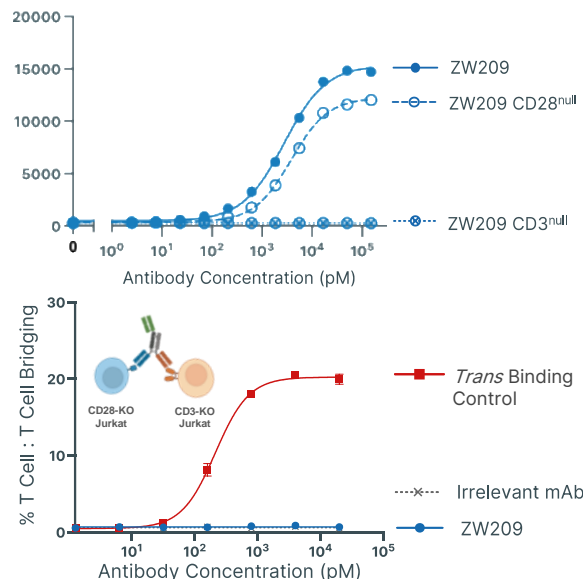
### Zymeworks' Next Generation Solution:

- Balanced low affinity CD3 and CD28 engagement
- Conditional CD28 binding that only binds in cis with CD3 engagement
- Strict target-dependent activity and T cell activation
- Identified via Azymetric™ screening of various antibody geometries and CD3 and CD28 paratope affinities

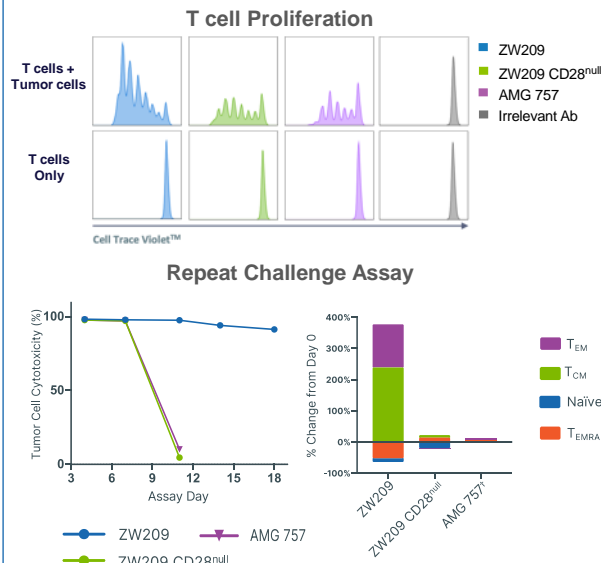
# ZW209: Mediates Enhanced and Sustained Cytotoxicity

ZW209 demonstrates conditional CD28 binding and target-dependent anti-tumor activity

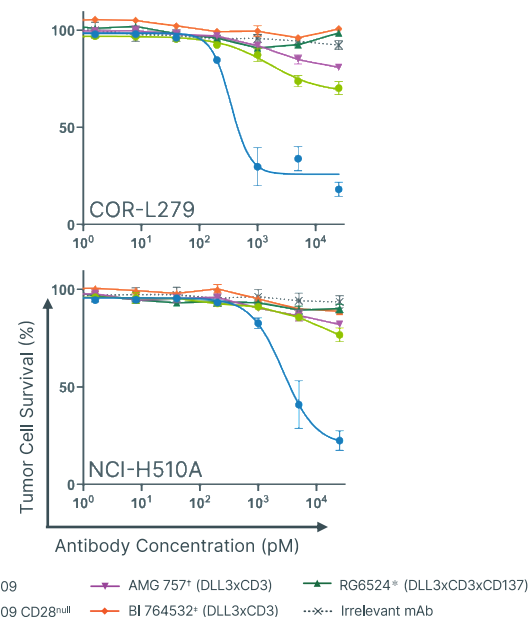
## Conditional Binding of CD28, Requiring Co-engagement of CD3; Obligate Cis Binding



## Improved T Cell Proliferation, Memory T Cell Expansion and Sustained Cytotoxicity



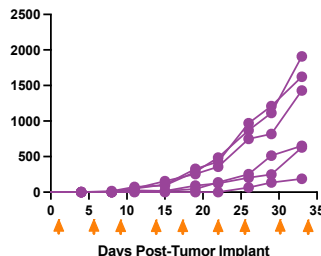
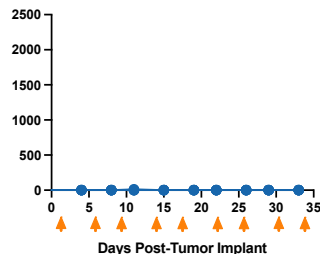
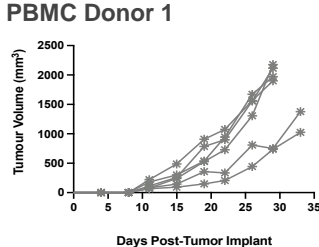
## Improved Cytotoxicity Over Bispecifics in Low E:T Conditions



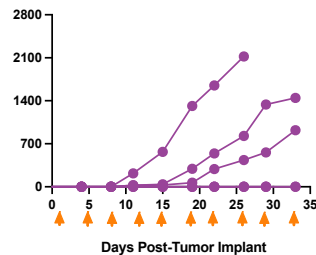
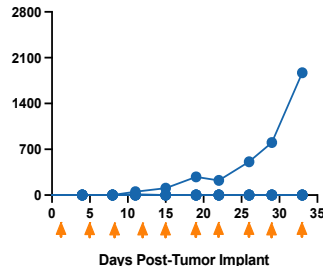
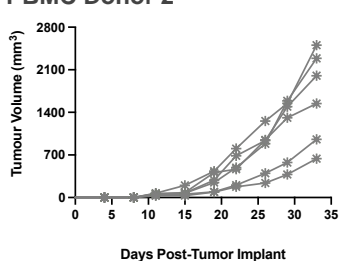
# ZW209: Mediates Enhanced Anti-Tumor Activity and Favorable Safety Profile in *In Vitro* and Animal Studies

## ZW209 Mediates Enhanced Anti-Tumor Activity *In Vivo* Compared to Benchmark Bispecific TCE in Humanized SCLC Models

PBMC Donor 1



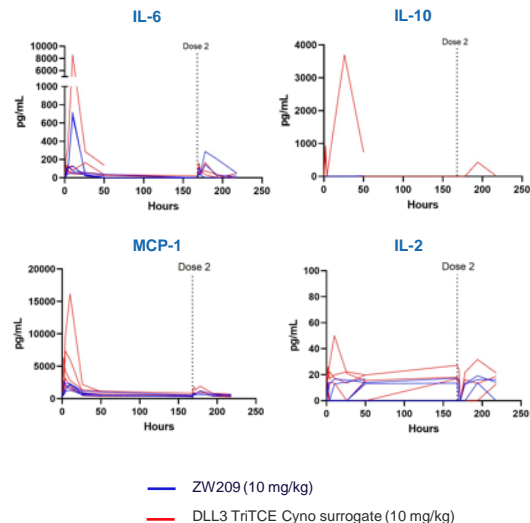
PBMC Donor 2



—\*— Untreated  
—●— ZW209 2.85 nmol/kg  
—●— AMG 757 2.85 nmol/kg

## Well Tolerated in Non-Human Primates

Transient, Minor Increases in Serum Cytokine Post-Dosing



Note: Peak 10 mg/kg surrogate values are male with ↑ CRP

# AD-VAN-CE Portfolio: Progressing “First In Class” Therapeutics

1. **Focus on novel “first in class” multi-functional therapeutics:** novelty of modality, mechanism of action (MoA), and/or targeting strategy. Disruptive therapeutics with high potential benefit to patients.
2. **Build on competitive edge in ADCs and protein engineering:** cross complementary MoA and pathway axes across Zyme portfolio.
3. **Continue to focus on select therapeutic opportunities in solid tumors:** expand portfolio coverage with GI tract and thoracic cancers.
4. **Expand technology application to Heme-Onc, Autoimmune and Inflammatory Disease:** targeted areas conducive to multi-functional therapeutic intervention; overlap with company expertise.

## Antibody-Drug Conjugates

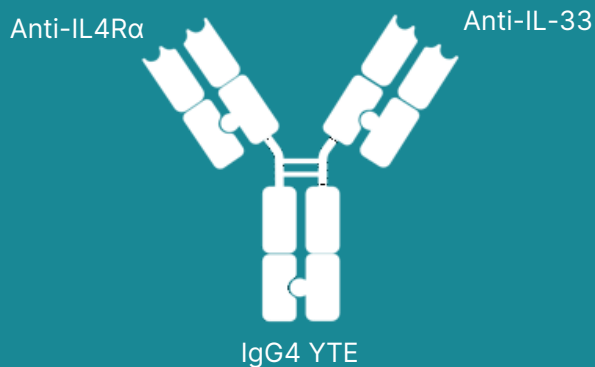
- Novel Payload(s) – beyond TOPO1i
- Bispecific/Biparatopic(s)
- Novel Targets and Target Pairs
- Payload modalities beyond cytotoxics

## Cell Engagers

- Multispecific T Cell Engagers
- Multi-antigen targeting
- Conditional activation
- Novel targets (e.g. proteomics)
- Intracellular antigens

## Cytokine Engineering

- Tumor specific cytokine activation
- Combination Checkpoint Inhibition/cytokine activation
- Chemokine incorporation
- Multi-cytokine blockade (Autoimmune)



# ZW1528

## Bispecific Designed to Address Respiratory Inflammation

On track for IND submission 2H 2026

### Optimized Design

- IL-4Rα x IL-33 bispecific molecule that inhibits multiple pathways within complex pathophysiology of inflammation in diseases such as mixed-type COPD
- In-house antibody discovery of novel anti-IL4Rα and IL-33 paratopes
- Native IgG-like geometry

### Differentiated Profile

- Potently blocks two complementary pathways of respiratory inflammation: IL-4Rα and IL-33
- Targets three cytokines in a single biologic
- Offers a unique approach that leverages clinically validated targets
- Demonstrates high manufacturability and incorporates half-life extending Fc modifications
- Aligns with requirements for successful AIID therapeutics

### Significant Patient Need

- Mixed-type COPD patients are hospitalized 2-3.6 times more often than those with other COPD phenotypes<sup>1</sup>

1. <https://pubmed.ncbi.nlm.nih.gov/25844673/#:~:text=Measurements%20and%20main%20results:%20Of,%3C%200.05%20for%20all%20comparisons>.  
AIID: Autoimmune and inflammatory disease, COPD: Chronic obstructive pulmonary disease

# Bispecific Antibody Therapeutics as the Potential Answer to Complex Biology of AILD and Hematology Oncology

## Patients

- Serious, difficult-to-treat diseases (e.g., ALL, cHL, MM, COPD, and NHL)
- Contribution of multiple (targetable) pathways
- Large patient population
- Restricted access to advanced therapeutics
- Urgent need for treatments in refractory or multidrug-resistant cases
- Poor outcomes

## Clinical Science

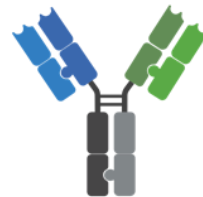
- + Clinically validated targets
- + Benefits of combination



- Inconvenience and cost of clinical implementation

## Technology

- + Clinically validated platform
- + Compatibility with Fc modifications (HLE)



- + High efficacy, convenient, cost-effective solution

Zymeworks' differentiated multifunctional therapeutics provide opportunity to improve upon existing treatment approaches and current standard of care in areas of high unmet need

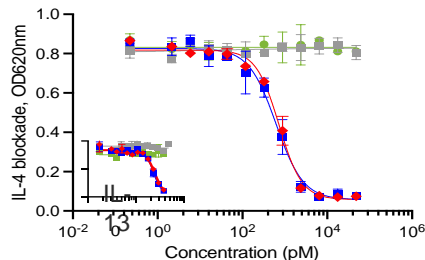
ALL: Acute lymphocytic leukemia, cHL: Classical Hodgkin Lymphoma, MM: Multiple myeloma, COPD: Chronic obstructive pulmonary disease, NHL: non-Hodgkin lymphoma, HLE: Half-life extension.

# ZW1528: A Potential New Treatment Option in COPD

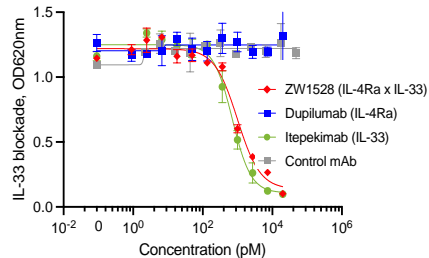
Potently blocks two complementary pathways of respiratory inflammation, while aligning with requirements for successful AIID therapeutics

## Effectively Blocks of IL-4/13 and IL-33 Signaling

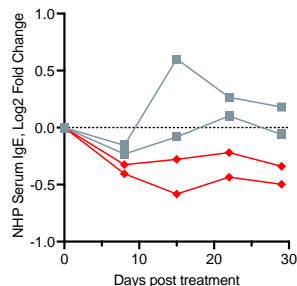
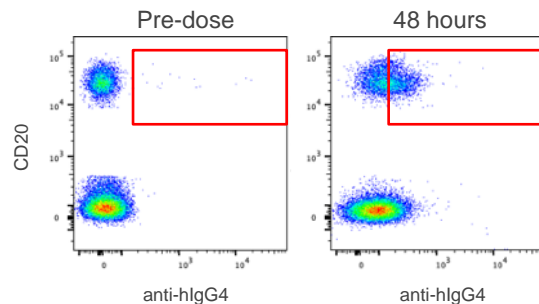
### Blockade of IL-4/13



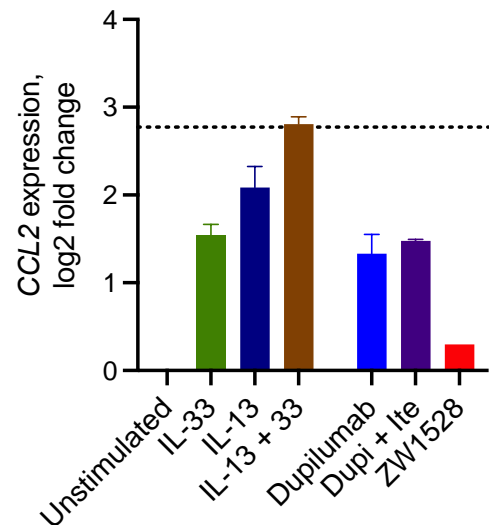
### Blockade of IL-33



## Demonstrates Biomarkers of IL-4Rα/IL-33 Blockade in NHP Up to 6 Weeks After Single Administration

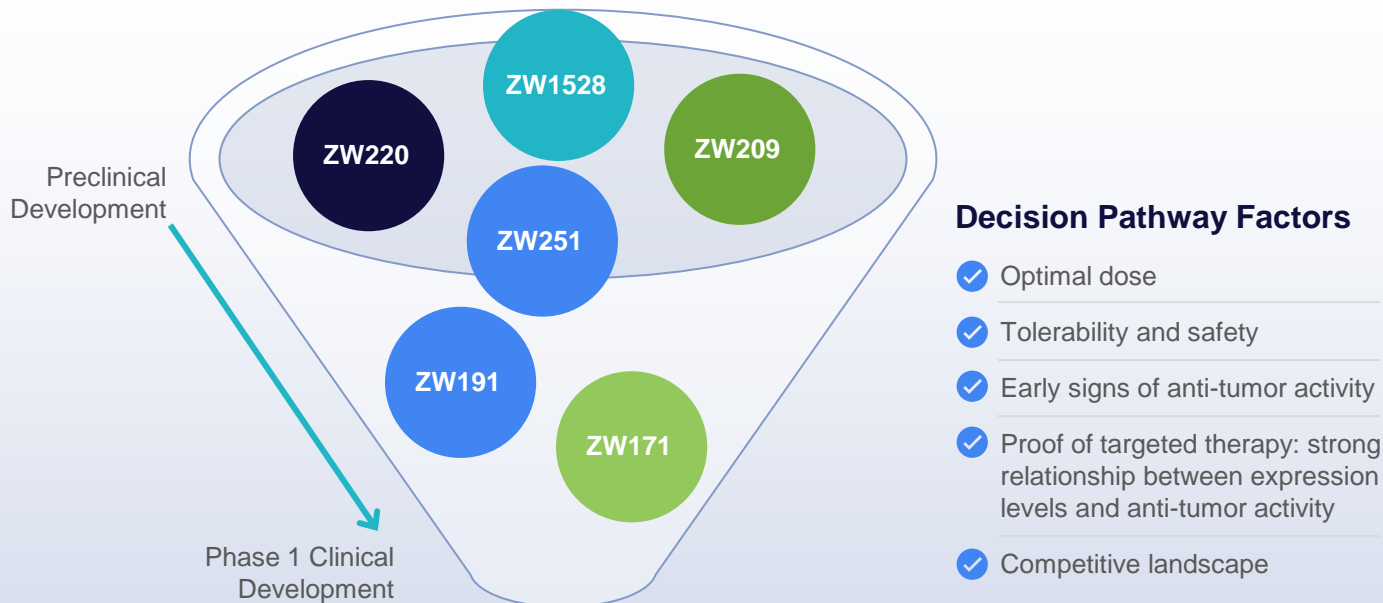


## Effectively Blocks Complementary Pathways of Immune Activation





# Multiple Candidates in Development Offer Strategic Pivot Points



Pipeline Resource Allocation

Partnership Optionality

Combination Approaches

Accelerated Development  
into Phase 2/3

# Executive Summary



With nomination of ZW209, 5x5 solid tumor portfolio construction is 18 months ahead of schedule



Recent approval of zanidatamab demonstrates our experience and abilities to develop unique and differentiated therapeutics with clinically meaningful benefits for patients



ADVANCE portfolio broadly diversified into hematological cancers and AIID in addition to solid tumors with initial IND planned for 2H-2026 for ZW1528



Clear decision-making processes to advance or cease development activities on product candidates based on clinical data generated



Enhanced optionality for partnerships and collaborations to share capital and development risk



Strong financial position to provide opportunity for retaining certain product rights

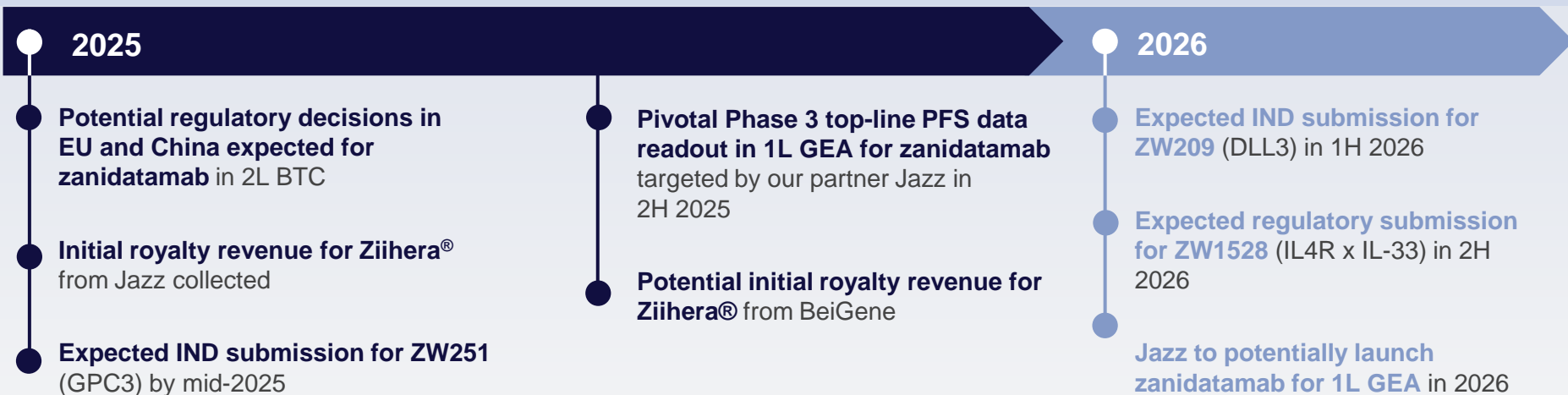


R&D organizational structure in place to drive continued progress in both '5x5' and ADVANCE portfolios



Additional solid tumor research focused on digestive system cancers, including CRC and PDAC

# Meaningful Catalyst Events Anticipated Throughout 2025 & 2026



CASH<sup>1</sup> RUNWAY FORECAST INTO 2H 2027 WHEN COMBINED WITH RECEIPT OF CERTAIN ANTICIPATED REGULATORY MILESTONE PAYMENTS

## Company Contacts

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