

# Making a Meaningful Difference

On a mission to improve the standard of care for difficult-to-treat diseases

**Investor and Analyst Presentation** 

**NOVEMBER 2024** 

## **Legal Disclaimer**



This presentation and the accompanying or al commentary include "forward-looking statements" or information within the meaning of the applicable securities legislation, including Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended.

Forward-looking statements in this presentation and the accompanying or al commentary include, but are not limited to, statements that relate to Zymeworks' expectations regarding implementation of its strategic priorities; the anticipated benefits of its collaboration agreements with Jazz, BeiGene and other partners, including ongoing clinical studies and regulatory reviews; the conduct of an ongoing confirmatory trial to evaluate the efficacy and safety of zanidatamab; Zymeworks' ability to receive any future milestone payments and royalties thereunder; the potential addressable market of zanidatamab; the timing of and results of interactions with regulators; Zymeworks' clinical development of its product candidates and enrollment in its clinical trials: the timing and status of ongoing and future studies and the related data; anticipated preclinical and clinical data presentations; expectations regarding future regulatory filings and approvals and the timing thereof; the timing of and results of interactions with regulators; potential safety profile and therapeutic effects of zanidatamab and Zymeworks' other product candidates; expected financial performance and future financial position; the commercial potential of technology platforms and product candidates; Zymeworks' ability to satisfy potential regulatory and commercial milestones with existing and future partners; the timing and status of ongoing and future studies and the release of data; anticipated continued receipt of revenue from existing and future partners; Zymeworks' preclinical pipeline; expectations for future investigational new drug and foreign equivalent applications submissions and Zymeworks' ability to execute new collaborations and partnerships and other information that is not historical information. When used herein, words such as "plan", "believe", "expect", "may", "continue", "anticipate", "potential", "will", "progress", and similar expressions, or any discussion of strategy, are intended to identify forward-looking statements. In addition, any statements or information that refer to expectations, beliefs, plans, projections, objectives, performance or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking. All forward-looking statements are based upon Zymeworks' current expectations and various assumptions, including, without limitation, Zymeworks' examination of historical operating trends. Zymeworks believes there is a reasonable basis for its expectations and beliefs, but they are inherently uncertain. Zymeworks may not realize its expectations, and its beliefs may not prove correct. Actual results could differ materially from those described or implied by such forward-looking statements as a result of various factors, including, without limitation: any of Zymeworks' or its partners' product candidates may fail in development, may not receive required regulatory approvals, or may be delayed to a point where they are not commercially viable; Zymeworks may not achieve milestones or receive additional payments under its collaborations; regulatory agencies may impose additional requirements or delay the initiation of clinical trials; the impact of new or changing laws and regulations; market conditions; the impact of pandemics and other health crises on Zymeworks' business. research and clinical development plans and timelines and results of operations, including impact on its clinical trial sites, collaborators, and contractors who act for or on Zymeworks' behalf; clinical trials may not demonstrate safety and efficacy of any of Zymeworks' or its collaborators' product candidates; Zymeworks' assumptions and estimates regarding its financial condition, future financial performance may be incorrect; inability to maintain or enter into new partnerships or strategic collaborations; and the factors described under "Risk Factors" in Zymeworks' quarterly and annual reports filed with the Securities and Exchange Commission (copies of which may be obtained at www.sec.gov and www.sedarplus.ca).

Although Zymeworks believes that such forward-looking statements are reasonable, there can be no assurance they will prove to be correct. Investors should not place undue reliance on forward-looking statements. The above assumptions, risks and uncertainties are not exhaustive. Forward-looking statements are made as of the date hereof and, except as may be required by law, Zymeworks undertakes no obligation to update, republish, or revise any forward-looking statements to reflect new information, future events or circumstances, or to reflect the occurrences of unanticipated events.

# Zymeworks: A Differentiated Product Pipeline Built on Unique Capabilities in Antibody Engineering and Medicinal Chemistry



## Seeking to address unmet patient needs in HER2+ GI Cancers

#### zanidatamab

(HER2 bispecific antibody)

- Licensed to Jazz and BeiGene
- 2L BTC (IHC3+) U.S. FDA Approval
- 1L BTC confirmatory trial ongoing
- Phase 3 GEA top-line PFS readout estimated 2Q25
- Phase 3 EmpowHER-BC-303 breast cancer trial now enrolling
- Initiated Phase 2 DiscovHER-Pan-206

## **5 new INDs planned** Focus on Gyn CA, Lung CA, & GI CA

- ZW171 (Phase 1 Initiated)
   MSLN x CD3 bispecific antibody
- ZW191 (Phase 1 Initiated)
   FRα TOPO1i ADC
- #IL 33VQ20 (IND 1H 2025)
  NaPi2b TOPO1i ADC
- ZW251 (IND 2H 2025)
   GPC3 TOPO1i ADC
- Candidate 5 TBD (IND 1H 2026)
   Pre-clinical TriTCE candidate
   nomination expected in 2H 2024

## Continuing to innovate and move beyond oncology

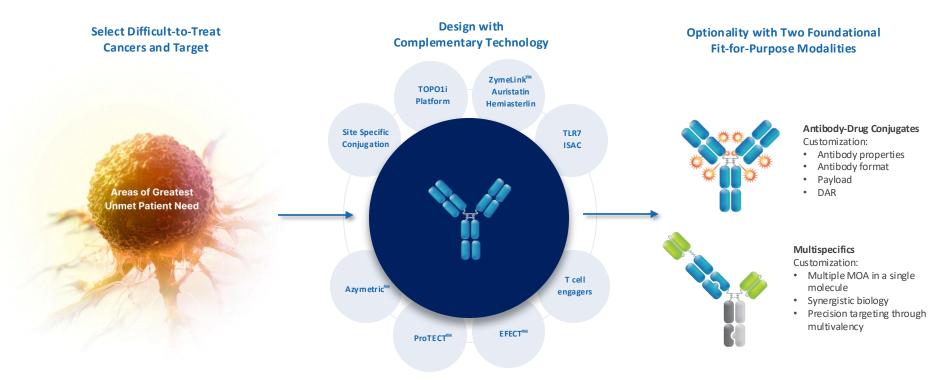
- Unique/differentiated platform to build nextgen ADC's and TriTCE's
- Therapeutic focus to be expanded into autoimmune and inflammatory disease (AIID)
- Research scope to potentially expand into multifunctional engineered cytokines and dual checkpoint inhibitors

Expanding product pipeline with US approval and launch of zanidatamab. Cash runway forecast into 2H 2027, with receipt of certain anticipated regulatory milestone payments.

11: first-line (treatment); 21: second-line (treatment); 22: second-line (treatment); ADC: antibody-drug conjugate; BLA: Biologics License Application; BTC: billiary tract cancers; CD3: duster of differentiation 3 protein complex and Ticell co-receptor; FRc: foliate receptor a lpha; FDA: U.S. Food and Drug Administration; GEA: gastroscophageal adenocarismas, GICA: gastrointestinal cancer; GPC3: glypican-3; Gyn CA: gynecological cancer; HER2: human epidermal growth factor receptor 2; IND: investigational new drug (application); Lung CA: lung cancer; MSLN: mesothelin; NaPt2b: sodium-dependent phosphate transporter 2b; NSQLC: non-small cell lung cancer; PDUFA: Prescription Drug User Fee Act; TOPO1i: tood/somerase-1 inhibitor.

# Unique Capabilities in Protein Engineering Provide Opportunity for Differentiated Pipeline of ADCs and Multispecific Antibodies





5 novel therapeutics expected to be in active clinical trials by 2026

DAR: drug to antibody ratio; ISAC: immune stimulating antibody conjugate; MOA: mechanism of action; TLR7: toll-like receptor 7.

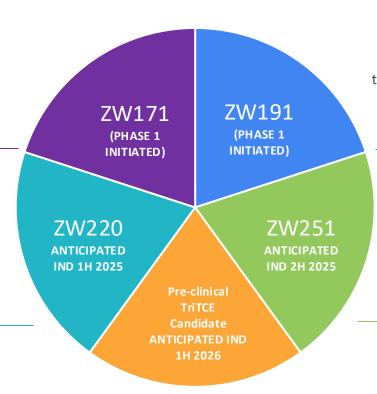


## **ZW171 (MSLN)**

Bispecific T Cell Engager (2+1) targeting ovarian, NSCLC, and other mesothelin-expressing cancers

### **ZW220 (NaPi2b)**

Antibody-Drug Conjugate targeting NaPi2b-expressing nonsmall cell lung cancer and ovarian cancer



#### **ZW191 (FRα)**

Antibody-Drug Conjugate targeting folate receptor alpha expressing tumors including ovarian, other gynecological, and non-small cell lung cancer

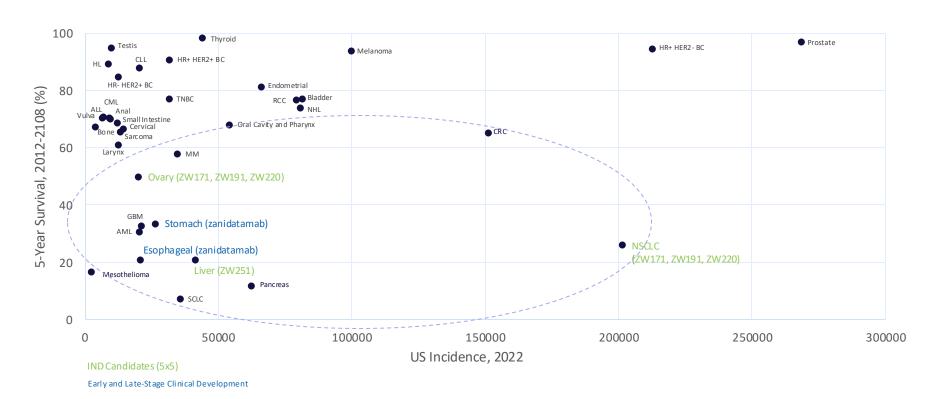
#### **ZW251 (GPC3)**

Antibody-Drug Conjugate targeting GPC3-expressing hepatocellular carcinoma

TriTCE: trispedific t cell engager

## **R&D Focus on Cancers With Highest Unmet Medical Need**





P.C. branch concern CP.C. colored tal concern SEE P\* Evalur or incommed 1.0 Oct 2002

## **Extensive News Flow Completed in 2024 and Expected in 2025**



1H 2024 2H 2024 2025

#### PIPELINE EVENTS

- BLA accepted and granted Priority Review in the USA by our partner Jazz for zanidatamab in 2L BTC
- Jazz initiated a Phase 3 global confirmatory trial for zanidatamab in 1L BTC
- Jazz Initiated Phase 3 EmpowHER trial in late-line HER2+ breast cancer.
- Jazz confirmed that the European Medicines Agency validated the Marketing Authorization Application for zanidatamab in 2L BTC

- BLA accepted in China by our partner BeiGene for zanidatamab in 2L BTC
- Phase 1 Initiated for both ZW171 & ZW191
- Jazz initiated a Phase 3 trial for zanidatamab in patients who have progressed on previous T-DXd treatment by our partners Jazz
- Nomination of Tri-TCE product candidate
- U.S. FDA approval and launch of Ziihera® (zanidatamabhrii) for the treatment of adults with previously treated, unresectable or metastatic HER2+ (IHC 3+) BTC 2I
- Jazz Initiated Phase 2 DiscovHFR-Pan-206
- Virtual & In-Person R&D Day in New York on December 12, 2024

- Pivotal Phase 3 top-line data readout in GEA 1L targeted by our partner Jazz in 2Q 2025
- Potential China approval for zanidatamab in 2L BTC in Q2 2025
- Initial royalty revenue from partners Jazz and BeiGene
- Expected IND submission for ZW220 (NaPi2b) in 1H 2025
- Expected IND submission for ZW251 (GPC3) in 2H 2025

#### **PUBLICATIONS & CONFERENCES**

- ASCO GI (January 18-20)
- JSMO (February 22-24)
- World ADC London (March 12-15)
- AACR (April 5-10)
- PEGS (May 13-17)
- ASCO (May 31-June 4)

- WCGQ (July 3-6)
- ESMO (September 13-17)
- EORTC-NCI-AACR (October 23-25)
- SITC (November 6-10)
- SABCS (December 10-14)

Illustrative. Key news flow only. AACR: American Association for Cancer Research; ASCO: American Society of Clinical Oncology; ASCO Gt. ASCO Gastrointestinal Cancers Symposium; BIA: biologics license application; EORTC-NCI-AACR: EORT G-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics; EMA: European Medicines Agency, ESMO: European Society for Medical Oncology; JSMO: Japansee Society of Medical Oncolo

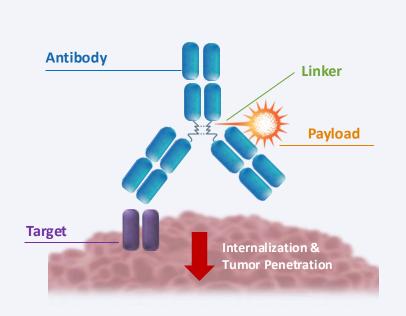


Antibody-Drug Conjugate (ADC) Program

# **Building Next-Generation ADCs**

## **Core Competencies Utilized in Next-Generation ADC Design**





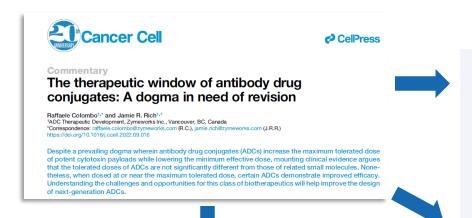
- Focusing on validated targets provides opportunity for benchmarking in preclinical development and expected clinical differentiation; novelty of targets anticipated to increase over time
- Exploiting our proprietary TOPO1i payload (ZD06519) while exploring alternate mechanisms of action for longer-term development
- Leveraging validated peptide-cleavable linkers and stochastic conjugation. New chemistries under development to complement novel payloads
- Optimizing antibody properties for the ADC mechanism, such as target-mediated binding and enhanced internalization. Biparatopic and bispecific ADC formats may also provide future differentiated therapeutics
- Utilize 3D cancer cell line spheroid models to select optimal ADC antibodies based on tumor spheroid penetration and cytotoxicity

Multiple proprietary topoisomerase I inhibitor ADCs<sup>1,2</sup> advancing towards the clinic with broad investment in ADC technologies to support future programs

Colombo R, Rich JR. Cancer Cell 2022 (40), 1255-1263;
 Colombo R, Barnscher SD, Rich, JR. Cancer Res 2023, 83 (7). Abstract #1538 presented at AACR 2023.

## Platform Design Criteria Draw on Well Validated ADC Technologies

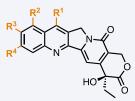




#### **Payload**

Novel camptothecin with moderate potency and strong bystander activity

- Acknowledges complex mechanisms driving TOPO1i ADC action
- Sufficient tolerability to achieve ADC dose > 5 mg/kg



#### Linker

#### Traceless, plasma-stable, cleavable peptide

- Common to majority of approved ADCs
- · Compatible with desired bystander activity
- Avoids highly stabilized linker-antibody conjugation to limit off target toxicities



### Conjugation

Thiol-maleimide chemistry

- Stochastic conjugation utilized in all approved ADCs
- · Facilitates DAR optimization
- Good balance of stability, safety, and anti-tumor activity



Colombo R. Rich JR. Cancer Cell 2022 (40)

## **Differentiated Development of Antibody-Drug Conjugates**

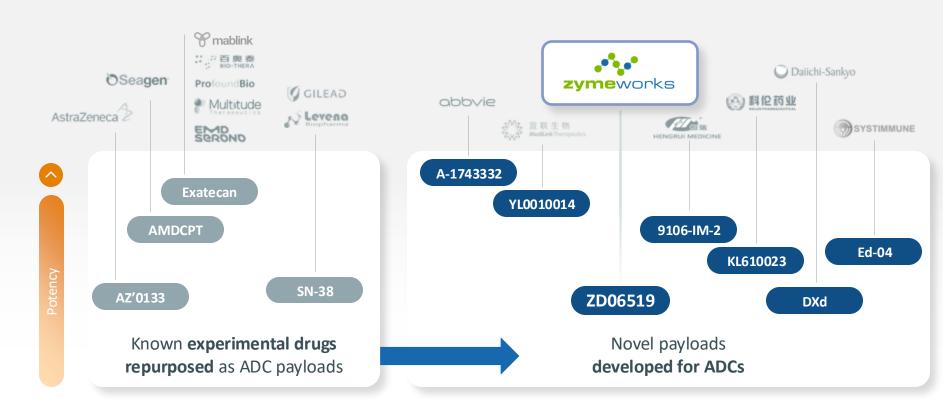


Designing next-generation antibody-drug conjugates on targets with evidence of clinical activity and addressing areas of unmet therapeutic potential

Program	Potential Indication	Target(s)	Payload	DAR (Range)	Preclinical	Phase 1	Phase 2	Pivotal	Collaboration Partners
ZW191 ADC targeting folate receptor-alpha	OVCA, other gynecological cancers, NSCLC	FRα	Topoisomerase I Inhibitor (ZD06519)	8	ΝC106555744	Phase	1 clinical trial initiated		
<b>ZW220</b> ADC targeting Napi2b	OVCA, NSCLC	NaPi2b	Topoisomerase I Inhibitor (ZD06519)	4	On tra	ack for IND filing in 1	H 2025		
<b>ZW251</b> ADC targeting GPC3	Hepatocellular carcinoma	GPC3	Topoisomerase I Inhibitor (ZD06519)	4	On tra	ack for IND filing in 2	2H 2025		

## **Zymeworks Novel Camptothecin Payload Was Selected With ADCs In Mind**





Design of novel payloads enables incorporation of properties tailored for ADC mechanism





# **ZW191** FRα-targeting ADC

FR $\alpha$  is found in ~75% of high-grade serous ovarian carcinomas<sup>1</sup> and ~70% of lung adenocarcinomas<sup>2</sup>



#### **Optimized Design**<sup>3</sup>

- IgG1 antibody selected for its enhanced internalization and tumor penetration
- Novel moderate potency topoisomerase I inhibitor payload with bystander activity (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>3</sup>
- Favorable safety profile in non-human primate toxicology studies<sup>3</sup>
- Opportunity to treat broader range of FRα-expressing cancers



#### Status

Initiated Phase 1 clinical trial (NCT06555744)

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

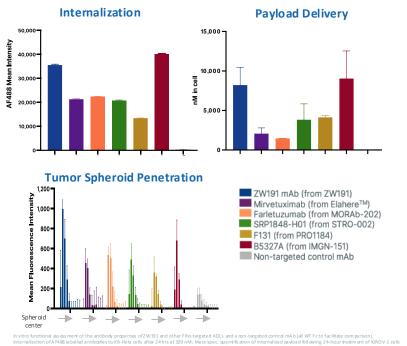
<sup>2.</sup> O'Shannessy DJ, et al., On cota rget. 2 012 Apr; 3(4):414-25.

<sup>3.</sup> Lawn S et al. Abstract #2641 Presented at AACR 2023.

## ZW191: Key Design Considerations; On Track for Clinical Studies in 2024

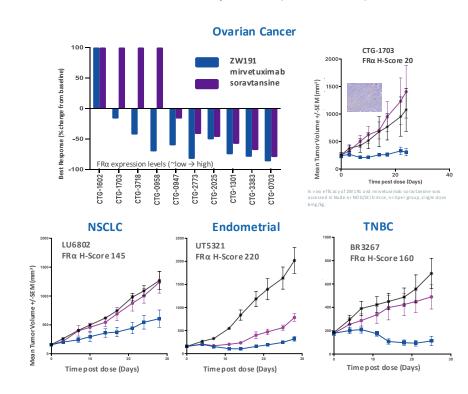


ZW191's Novel mAb Drives Superior Internalization, Payload **Delivery, and Tissue Penetration** 



with 10 nM of ADCs comprising ZW 191 mA bor other FRa-targeted mA bs conjugated to ZymeLink Auristatin (ZLA); Penetration of AF 488 labelled antibodies as quantified by high content i maging of spheroid layers at 24hours post-treatment at 50 nM.

#### **Anti-tumor Activity Across Multiple Tumor Types And Range** of FRα Expression (PDX models)



Fc: fragment crystallizable region of antibody; PDX: patient derived xenografts; TNBC: triple-negative breast cancer; WT: wild type. Wong Jetal, Abstract #3127 presented at American Association for Cancer Research annual meeting 2024; Lawn S. et al. Abstract #1862 presented at American Association for Cancer Research annual meeting 2024.

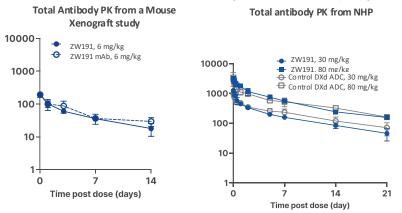
## **ZW191: Novel and Proprietary TOPO1i Payload Well-Tolerated**



#### ZW191 shows a favorable tolerability profile of 60 mg/kg in NHP<sup>1</sup>

Dose mg/kg	Observations	Histopathology	Chemistry	Hematology & coagulation	Adverse effects	HNSTD
10	None	None	↑ AST, ALT (n=1)			
30	Emesis/vomitus	↓ Thymic lymphocytes, ↓ PACS	↑ AST, ALT	No effects	None	60 mg/kg
60	Liquid/discolored feces Emesis/vomitus ↓ activity level (n=1)	$\downarrow$ Thymic lymphocytes, $\downarrow$ PACS	↑ AST, ALT ↑ CK			0. 0

#### ZW191 has a favorable pharmacokinetic (PK) profile<sup>2</sup>



- No mortality or body weight effects
- No ophthalmic effects
- All effects were non-adverse and reversible
- HNSTD in NHP of 60 mg/kg presents a compelling profile, enabling expectation of achieving efficacious dose level

- ZW191 displays favorable PK and is well tolerated in NHP at exposure levels above those projected to be efficacious
- GMP process development is underway to support an expected 2024 IND filing

ALT: alanine a minot ransferase; AST: aspartate aminotransferase; CK: creatine kinase; GMP: good manufacturing practices; HNSTD: highest non-severely toxic dose; MTD: maximum tolerated dose; NHP: non-human primates; PACS: pancreatic acinar cell secretion.

1. Lawn S. et al. ZW191 – a FRx: targeting antibody-drug conjugate with strong preclinical activity across multiple FRx-expressing indications. Abstract# 1862 presented at American Association for Cancer Research annual meeting 2024.

2. Lawn S. et al. ZW191 ... a novel FRx-targeting antibody-drug conjugate with a cool somerase linhibitor or avaioad. Abstract# 2641 presented at American Association for Cancer Research annual meeting 2023.

## Differentiation is Critical for ZW191 in the Competitive FRα ADC Space for TOPO1i



#### A novel design to target FRa

#### 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.

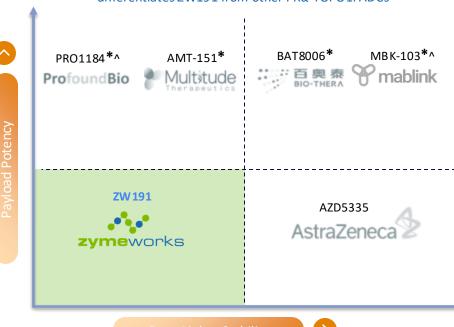
#### 4. Moderate antibody-linker stability

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



Drug-Linker Stability



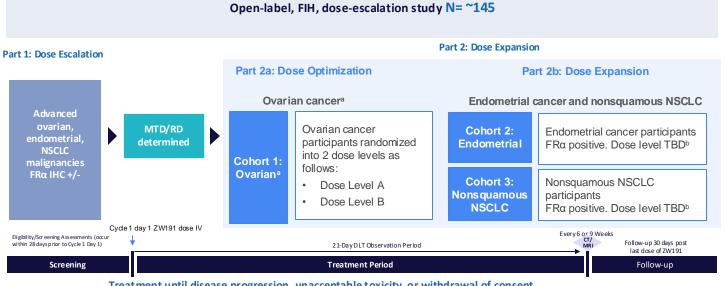
<sup>\*</sup> Denotes use of exatecan payload
^ Denotes use of Fc-silenced antibody

<sup>^</sup> Denote

<sup>1.</sup> Lawn S et al. Abstract # 2641 Presented at AACR 2023; 2. Meric-Bernstam F, et al., Journal of Clinical Oncology 2023 41:17; 3. Moore K, et al., Jannonc. 2023.09.1924; 4. Colombo R, Barnscher SD, Rich JR. Cancer Res 2023, 83 (7). Abstract #1538 or esented at AACR 2023 5. Lawn S. ZW191: A Potential Best-in-Class TO PO1 i ADC for Treatment of FRo-Expressing Solid Tumors, Presented at World ADC London 2023.

## ZW191 Global Phase 1 Study in FRα-Expressing Solid Tumors (NCT06555744)





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

Part 1: Do	se Escalation	Part 2: Dose Expansion			
Primary Endpoint     Safety and tolerability     MTD/MAD	Secondary Endpoints • PK, ADA • cORR (RECIST)	Primary Endpoints     OBD     Safety and tolerability     cORR	Secondary Endpoints  • PK, ADA  • PFS  • DOR  • OS		

#### **KEY ELIGIBILITY CRITERIA**

#### Inclusion criteria

- Pathologically confirmed ovarian cancer, endometrial cancer. NSCI C
- Progressive disease refractory to all SOCs that confer clinical benefit
- Measurable disease per RECIST v1.1
- FCOG PS 0-1
- Adequate organ function

#### Exclusion criteria

- Known additional malignancy that is progressing or that has required active treatment
- Ongoing clinically significant toxicity (Grade ≥2)
- Advanced/metastatic, symptomatic, visceral spread, at risk of lifethreatening complications in the short-term

aOvarian cancer includes primary peritoneal and fallopian tube cancers, 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,

ADA: anti-drug antibody-drug conjugate: AE: adverse event: AESI: adverse event of special interest; CNS: central nervous system; CT/MRI: computed tomography/magnetic resonance imaging; ECOG PS: Eastern Cooperative Oncology Group RDE: recommended dose for expansion: RECIST: Response Evaluation Criteria in Solid Tumors; SAE: serious adverse event; SMC; safety monitoring committee; SOC; standard of care; TBD; to be determined; TOPO1i; topoisomerase-1 inhibitor





## ZW220 NaPi2b-targeting ADC

NaPi2b is found in ~96% of ovarian serous adenocarcinomas<sup>1</sup> and ~87% of non-small cell lung adenocarcinomas<sup>1</sup>



#### Design<sup>2</sup>

- IgG1 antibody selected for its strong binding and internalization
- Moderate potency topoisomerase I inhibitor payload with bystander activity (ZD06519)
- Intermediate drug-to-antibody ratio ~ 4
- Validated peptide cleavable linker sequence



#### **Profile**

- Strong preclinical activity in models with a breadth of NaPi2b expression<sup>1</sup>
- Encouraging tolerability in repeat dose non-human primate toxicology studies<sup>2</sup>
- First-in-class ADC potential for NaPi2b-expressing solid tumors



#### Status

Expected IND filing in 1H 2025

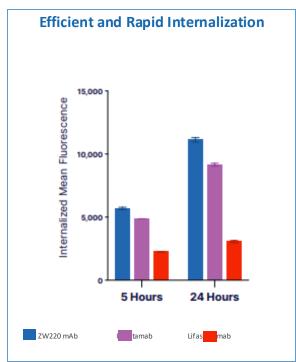
<sup>1.</sup> Lin K, et al. Clin Cancer Res. 2015;21(22):5139–5150 (prevalence % based on 26 cases of ovarian serous adenocarcinomas and 31 cases of non-small cell lung adenocarcinomas)

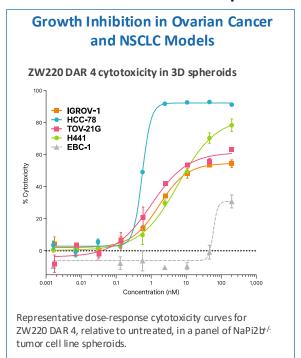
<sup>2.</sup> Hernandez Roja's A et al., Abstract #1533 presented at AACR 2023

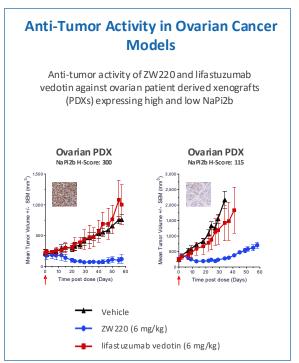
## **ZW220:** Potential Utility in Multiple Cancers; On Track for Clinical Studies in 1H 2025<sup>1,2</sup>



#### Customized format for function with best-in-class and first-in-class potential







Cell line spheroids with NaPi 2b/Cell expressed: IGROV-1 (Ovarian) 1,770,00 expressed; HCC-78 (NSCLC) 820,000 expressed; TOV21G (Ovarian) 350,000 expressed; H441 (NSCLC) 41,000 expressed; EBC-1 (NSCLC) 0 expressed. Data generated with ZW220 wildtype (wt) fragment crystallizable region of antibody (Fd).

1. Hernandez Roias A et al., Abstract #15 33 presented at AACR 2023; 2. Hernandez Roias A et al., Presentation at World ADC 2023.

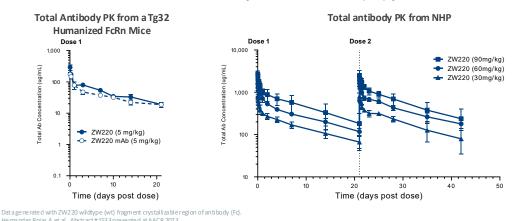
## **ZW220:** Novel and Proprietary TOPO1i Payload Well-Tolerated



ZW220 3-dose non-GLP NHP toxicology study, Q3Wx3						
Test artide	Dose	Tolerated?	Histopathology; Clinical Chemistry; Hematology	MTD		
	30 mg/kg	Yes	None			
ZW220	60 mg/kg	Yes	None	90 mg/kg		
	90 mg/kg	Yes	None	3, 3		

- The MTD of ZW220 in NHPs is 90 mg/kg
- No mortality or adverse pathology findings were observed at high doses

#### ZW220 has a favorable pharmacokinetic (PK) profile

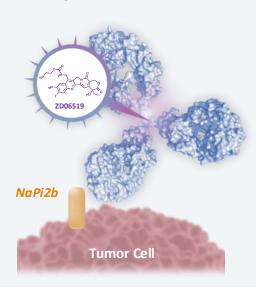


- ZW220 displays desirable PK characteristics and is well tolerated at high doses
- IND enabling activities are underway

## **ZW220:** A NaPi2b-Targeting Antibody-Drug Conjugate



## Design

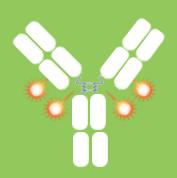


	Design Feature	Benefit
1	Strong internalizing antibody	Strong internalization and payload delivery may result in the potential for improved antitumor activity and the ability to target lower levels of NaPi2b <sup>1,2,3</sup>
2	Topoisomerase I inhibitor (TOPO1i) payload mechanism	Proven ADC mechanism in solid tumors across multiple tumorassociated antigens $^{1}$
3	Moderate payload potency	NHP MTD ≥90 mg/kg; potential for high doses in humans
4	Moderate antibody-linker stability	Limits antibody-driven toxicities <sup>4</sup>
5	Strong bystander activity	Beneficial when treating tumors with low and heterogenous expression of NaPi2b
6	DAR4	Balance desired antitumor activity with potential for on-target toxicities <sup>1,5</sup>
7	FcγR silenced	Potential to minimize toxicities driven by cellular uptake via $\text{Fc}\gamma\text{R}^{6,7,8}$

FcyR: Fc g amma re ceptor; FIH: first in human.

1. Herma ndez Rojas A et al. Presentation at World ADC 2023; 2. Hernandez Rojas A et al. Presentation at AACR-NCI-EORT C 2023; 5. Oka jima D, et al. Mol Cancer Ther. 2021; 20(12):2329-2340; 6. Maha lingaiah PK, Pharmacol Ther. 2019; 200:110-125; 7. Kumagai K, et al. Cancer Sci. 2020; 111: 4636–4645; 8. Koganemaru S, et al. Abstract#5760 presented at AACR 2024.





# **ZW251 Glypican 3-targeting ADC**

GPC3 is expressed in 76% of hepatocellular carcinomas (HCC)<sup>1</sup>



#### Design<sup>2</sup>

- An IgG1 antibody with enhanced ADC characteristics
- Topoisomerase I inhibitor mechanism of action
- Novel moderate potency payload with bystander activity (ZD06519)
- Intermediate drug-to-antibody ratio ~ 4
- Validated peptide cleavable linker sequence



#### **Profile**

- Strong preclinical activity in models with a breadth of GPC3 expression<sup>2</sup>
- Noteworthy tolerability in repeat dose non-human primate toxicology studies<sup>2</sup>
- First-in-class ADC potential for HCC
- Glypican 3 is expressed in 76% of hepatocellular carcinomas (HCC), with high expression observed in ~55% of HCC¹



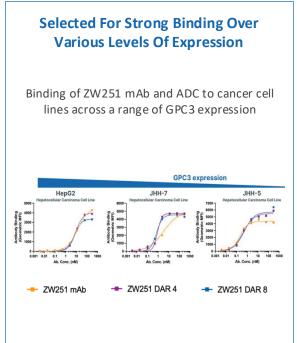
#### Status

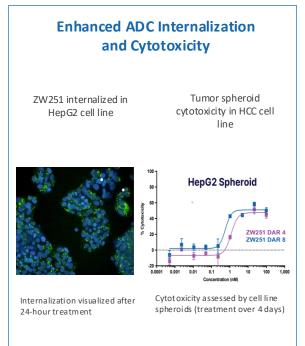
Expected IND in 2H 2025

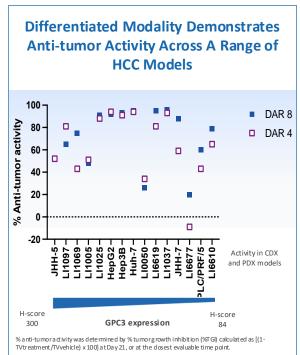
# **ZW251:** Potential Utility in Hepatocellular Carcinoma<sup>1,2</sup>; On Track for Clinical Studies in 2025



#### ZW251 demonstrates target-mediated uptake and anti-tumor activity





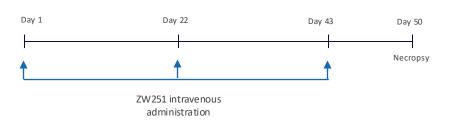


CDX: cell derived xenograft

## **ZW251: Novel and Proprietary TOPO1i Payload Well-Tolerated**



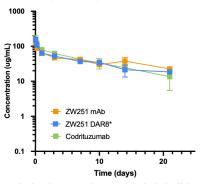
#### Three Dose Non-Human Primate (NHP) Toxicology Study



Test Article	Doses			
ZW251 DAR 8	10 mg/kg	30 mg/kg	60 mg/kg	
ZW251 DAR 4	20 mg/kg	60 mg/kg	120 mg/kg	

- Minimal changes in body weight, hematology parameters, and clinical chemistry parameters in all treatment groups
- · No mortality observed in any treatment group prior to necropsy

#### Total IgG in Tg32 Mouse Serum



\*Analog utilizes ZW251 mAb conjugated to a closely related linker-payload.

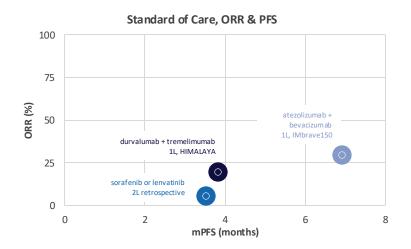
- ZW251 mAb exhibits comparable PK to a clinical-stage antibody comparator
- PK of ZW251 mAb unaffected by conjugation
- No mortality was observed in a repeat dose NHP toxicology study with doses up to 60 mg/kg (DAR 8) or 120 mg/kg (DAR 4)

## Potential Therapeutic Agent with Alternative Mechanism for HCC Patients



#### **HCC: Limited Treatment Options**

- Globally, liver cancer is the sixth most common cancer and third most common cause of death from cancer<sup>1</sup>
- In USA, 1L and 2L SOC provide < 9 months PFS



As a potential first-in-class TOPO1i-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** 

- GPC3 highly expressed in HCC and being targeted by other modalities including TCEs and engineered T cells.
- ADC approach provides alternate to counter limitations associated with immune-related suppressive HCC microenvironment and a potential therapeutic strategy amenable to combination with SOC.
- ZW251 drug design with potential first-in-class potential
  - Bystander active TOPO1i payload with tailored potency
  - Optimized drug-linker stability and intermediate DAR
  - Strong tumor growth inhibition across tumors displaying range of GPC3 expression

ORR: objective response rate; PFS; progression-free survival; SOC: st-andard of care; TCE: Tcell engager.
Film RSetal NEIM 2000; Abou-Alfa GK et al NEIM Evid 2002; Yoo C et al Liver Cancer 2021.

1. WHG. International Agency of Cancer Research. Cancer Today. 2020. Available at: https://scer.cancer.gov/statfac



Multispecific Antibody Therapeutic (MSAT) Program

# **Driving The Evolution of MSATs**

## **Differentiated Development of Multispecific Antibody Therapeutics**



Versatile multispecific antibody therapeutics enhancing potency and precision with proven track record and robust clinical pipeline

Program	Potential Indication	Target(s)	Preclinical Ph	hase 1	Phase 2	Pivotal	Collaboration Partners
<b>Zanidatamab</b> Bis pecific	втс	HER2 x HER2	U.S. FDA Approval in 2L B	3TC, 1L confirmat	ory study under w	<i>r</i> ay	Jazz Pramaceuticals.
	GEA	HER2 x HER2	HERIZON-GEA-01				Jazz Pharmacouticals
	ВС	HER2 x HER2	EMPOWHER <sup>1</sup>				Jazz Pharmaceuticals     BeiGene
	BC and other solid tumors	HER2 x HER2	8+ ongoing Phase 1 and Phase	se 2 trials ( <u>view</u> )			Jazz Pramacuticals  BeiGene
<b>ZW171</b> Bis pecific T cell Engager	OVCA, NSCLC and other MSLN-expressing cancers	MSLN x CD3 (2+1)	NCT06523803	Phase 1	clinical trial Initiat	red	
<b>TriTCE Co-Stimulatory</b> Trispecific T cell engager	Under active evaluation	CLDN18.2 x CD3 x CD28 DLL3 x CD3 x CD28	IND car	andidate nominat	tion studies		
TriTCE Checkpoint Inhibition Trispecific T cell engager	Under active evaluation	TAA x PD-L1 x CD3	Pilot toxicology	y studies			
Selected Partnered Programs							
<b>JNJ-78278343</b> Bis pe ci fic	Castration-Resistant Prostate Cancer	CD3 x KLK2	Azymetric™   EFECT™				Johnson-Johnson

CD28: cluster of differentiation 28; CLD N: claudin; DLL3: delta-like ligand 3; KUK2: kallikrein-related peptidase 2; PD-L1: programmed cell death ligand 1; TAA: tumor associated antigen.

1. Trial initiation expected in the second half of 2024.

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



1

#### Entering market first in BTC with U.S. FDA Approval<sup>1</sup>

- U.S. FDA approval and launch of Ziihera® (zanidatamab-hrii) for the treatment of adults with previously treated, unresectable or metastatic HER2+ (IHC 3+) BTC 2L
- The CDE NMPA in China has accepted the BLA for zanidatamab for 2L BTC
- Confirmatory Phase 3 trial initiated in 1L metastatic BTC



Represents ~12,000 HER2+ cases annually<sup>2</sup> In USA, Europe<sup>3</sup>, and Japan

2

#### Path to approval in 1L GEA with sBLA

- HER2+/PD-L1 negative: opportunity to address unmet need and replace trastuzumab
- 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>



Represents larger patient opportunity with ~63,000 HER2+ cases annually<sup>2</sup> in USA, Europe<sup>3</sup>, and Japan

3

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

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

Ongoing trials in early breast cancer:

- I-SPY2 Trial<sup>4</sup>
- MD Anderson collaboration
- Phase 3 EmpowHER-BC-303 trial



Considerable market opportunity with more than 150,000 cases annually<sup>5</sup> in USA, Europe<sup>3</sup>, and Japan



#### Broad potential beyond BTC, GEA, and mBC in multiple HER2-expressing indications<sup>6</sup>

• Colorectal Initiated Phase 2 DiscovHER-PanSCLC

• Ovarian

- Endometrial
- Salivary Gland
- Pancreatic
- Ampullary

• Bladder

And other HER2-expressing solid tumors

Making a Meaningful Difference

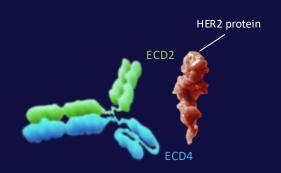
- 28

<sup>\*</sup>Adapt ed from Jazz Pharmaceuticals' Guidance

sBLA: supplemental biologics license application; CDE: Centerfor Drug Evaluation; NMPA: National Medical Products Administration.

<sup>1.</sup> Pending regulatory approvals, 2. Incidence sources: Kantar reports, ToGA surveillance report; SEER, cancer g.ov; ClearView Analysis; GLOBO CAN, Data on file, 3. Major markets, U.K., France, Germany, Spain, Italy, 4. NCT01 042379; 5. Incidence sources: Kantar reports, ToGA surveillance report; SEER, cancer g.ov; ClearView Analysis; GLOBO CAN, Data on file, 3. Major markets, U.K., France, Germany, Spain, Italy, 4. NCT01 042379; 5. Incidence sources: A more designation and expansion study, The Lancet Oncology, Volume 23, Issue 12, 2022, Pages 1558-1570, ISSN 1470-2045, Intbs://doi.org/10.1016/S1470-2045[2]00621-0.





## **Zanidatamab**

A Bispecific Antibody for HER2-Expressing Cancers

#### Zanidatamab's Unique Format

- Ability to target two distinct HER2 epitopes which results in HER2 binding across a range of expression levels (low to high)<sup>1</sup>
- HER2-receptor cross-linking, enhanced receptor clustering, internalization, and receptor downregulation<sup>1</sup>
- Inhibition of cellular proliferation
- Fc-mediated cytotoxicity: ADCC, ADCP, CDC<sup>1</sup>
- FDA Breakthrough Designation

## Biparatopic HER2-Binding of Zanidatamab Drives Multiple Mechanisms of Action



The geometry of zanidatamab prevents it from binding to the same HER2 molecule<sup>1</sup>

## Zanidatamab: Summary of Clinical Development Program for BTC and GEA



#### **Clinical Data**

Differentiated tolerability profile amongst HER2-targeted therapies; majority of adverse events low grade

## Single Agent Activity in Second-Line BTC Pivotal Study

 41.3% ORR (51.6% in the IHC3+ patients)<sup>1</sup>, 14.9 months mDoR<sup>2</sup>

## Combination Activity in First-Line GEA studies

- 79% ORR with a mDOR of 20.4 months and 84% 18-month OS rate<sup>3</sup>
- 75.8% ORR with mDOR 22.8 months and mPFS 16.7 months<sup>4</sup>

#### **Pivotal Trials**

#### **HERIZON-BTC-01**

A Global Pivotal Study in Second-Line HER2-Amplified BTC

 Results presented at ASCO 2023 with concurrent publication in The Lancet Oncology<sup>1</sup> & longer follow-up including overall survival findings at ASCO 2024<sup>2</sup>

#### **HERIZON-GEA-01**

A Global Pivotal Study in First-Line HER2-Positive GEA<sup>5</sup>

 Supported by promising Phase 2 clinical data presented at ASCO GI 2023<sup>3</sup> and Phase 1b/2 data at ESMO 2023<sup>4</sup>



#### **Key Milestones**

- U.S. FDA approval and launch of Ziihera® (zanidatamab-hrii) for the treatment of adults with previously treated, unresectable or metastatic HER2+ (IHC 3+) BTC 2L
- The CDE NMPA in China has accepted the BLA for zanidatamab for 2L BTC
- Jazz initiated a Phase 3 global confirmatory trial for zanidatamab in 11 BTC
- Pivotal Phase 3 top-line data readout in GEA
   1L targeted by our partner Jazz in 2Q 2025

Collaboration Partners:





## **Zanidatamab: Licensing Agreement with Jazz**



	Licensing Agreement Terms <sup>1</sup>
Counterparty	Jazz Pharmaceuticals.
Upfront Payments	\$375M received in 4Q22
BTC Milestone Payment	Zymeworks is eligible to receive \$25M
Remaining Regulatory Milestones	Up to \$500M
Commercial Milestones	Up to \$862.5M
Royalties	Tiered royalties of 10 to 20% of net sales
Territories	USA, EU, Japan and all other territories except those in APAC covered by BeiGene agreement
Future R&D Spend	Jazz to fund 100% of costs of future zanidatamab studies

#### **Key Benefits to Zanidatamab Licensing Agreement**

- Meaningful improvement to financial position and reduction in future expenditures allows focus on growth of exciting earlystage pipeline while zanidatamab advances to commercialization
- Accelerate and expand R&D programs (5x5 and ADVANCE) with a goal of advancing 5 new programs into clinical studies by 2026
- Continued development of zanidatamab program managed by Jazz
- Substantial potential milestone payments based on global regulatory milestones for zanidatamab in BTC and GEA with further upside from royalties and commercial milestones
- Leverage Jazz's global commercial infrastructure together with BeiGene's complementary strengths in APAC regions to optimize commercialization of zanidatamab without requirement for investment in commercial infrastructure within Zymeworks

APAC: Asia Pacific. . All dollar values in US Dollars.

## Zanidatamab: Licensing Agreement with BeiGene for Asia Pacific



	Licensing Agreement Terms <sup>1</sup>
Counterparty	<b>™</b> BeiGene
Upfront Payments	\$40M
Development and Commercial Milestones	Up to \$164M remaining
Royalties	Tiered royalties of up to 19.5% of net sales in BeiGene territories (up to 20% when royalty reduction of 0.5% reaches cap in the low double-digit millions of dollars)
Territories	Asia-Pacific region (excluding Japan and India)*
Co-development Funding	Currently for BTC and GEA global development

#### **Additional Details**

- Zymeworks has received \$53 million in upfront and milestone payments as well as certain co-development funding for zanidatamab clinical studies, not including the \$8 million milestone payment in connection with the CDE NMPA's acceptance of the BLA for zanidatamab for 2L BTC
- We remain eligible to receive up to \$164 million in additional development and commercial milestones from the original \$195 million
- BeiGene has development and commercial rights to zanidatamab
- Collaborate on certain global studies including HERIZON-BTC-01 and HERIZON-GEA-01 with BeiGene responsible for clinical and regulatory activities in their territory. Codevelopment funding agreed for any global studies

<sup>1.</sup> All dollar values in US Dolla

<sup>\*</sup> Zymeworks BC granted Bei Gene a royalty-bearing exclusive license for the research, development and commercialization of zarida tamab in Asia (excluding Japan but including the People's Republic of China, South Korea and other countries), Australia and New Zealand (collectively, the "Territory").

### Zanidatamab: Details on Pivotal Studies in BTC and GEA





#### **HERIZON-BTC-01**

A Global Pivotal Study in Second-Line HER2-Amplified BTC

Population: PATIENTS WITH HER2-AMPLIFIED BTC WHO RECEIVED PRIOR GEMCITABINE

N = 100

Cohort 1: 75 with IHC 2+ or 3+ Cohort 2: 25 with IHC 0 or 1+

Regimen: 28 Day Cycles

Day 1: Zanidatamab, 20 mg/kg IV Day 15: Zanidatamab, 20 mg/kg IV

Imaging every 8 Weeks

Locations: Canada, USA, Chile, France, Italy, Spain, United Kingdom, China, South Korea

Primary End Points: ORR (RECIST 1.1 by ICR1)

 $\textbf{Secondary End Points}: \textbf{Proportion of patients with DOR} \geq \! 16 \textbf{ weeks, DOR, DCR, PFS, OS,}$ 

safety

**Additional Details:** Meaningful clinical benefit demonstrated including ORR of 41.3%, median DOR of 12.9 months with a mPFS of 5.5 months presented at ASCO 2023, concurrent publication in The Lancet Oncology<sup>2</sup>.

#### **HERIZON-GEA-01**

A Global Pivotal Study in First-Line HER2-Positive GEA

**Population**: PATIENTS WITH HER2-POSITIVE ADVANCED OR METASTATIC GEA N = 918

Regimen: 21 Day Cycles

ARM 1: Trastuzumab + SOC chemotherapy<sup>3</sup>, N=238 ARM 2: Zanidatamab + SOC chemotherapy, N=238

ARM 3: Zanidatamab + tislelizumab + SOC chemotherapy, N=238 Imaging every 6 weeks for first 54 weeks, every 9 weeks thereafter

Locations: Australia, China, India, Malaysia, South Korea, Singapore, Taiwan, Thailand, Belgium, Czech Republic, Estonia, France, Italy, Georgia, Germany, Greece, Ireland, Netherlands, Poland, Portugal, Romania, Serbia, South Africa, Spain, Turkey, Ukraine and United Kingdom, Canada, Mexico, Guatemala, Argentina, Brazil, Chile, Peru

Primary End Points: PFS, OS (RECIST 1.1 by BICR1)

Secondary End Points: ORR, DOR, Safety, HRQoL

Additional Details: Anticipate topline readout in 2Q 2025

## **Zanidatamab: Epidemiology of Biliary Tract Cancers**



Biliary Tract Cancers (BTC) are molecularly diverse tumors which include gallbladder cancer (GBC), intrahepatic cholangiocarcinoma (ICC), and extrahepatic cholangiocarcinoma (ECC). Gall bladder cancer is the more prevalent diagnoses among BTC cases.

#### **Epidemiology (World)**

#### Incidence varies globally:

- Globally, it was estimated ~210,878 new cases of BTC in 2017, increasing to 219,420 in 2018.<sup>3</sup>
- Occurs at rate between 1-4 cases per 100,000 people / year in most regions; yet some regions exceed this age-standardized annual incidence rate <sup>4,5</sup>
- Chile had the highest incidence, followed by Japan and South Korea (10.83, 8.88, and 8.55/100,000, respectively)<sup>6</sup>



of all estimated new GBC cases occurred in Asia, with 10% (~12,570) in Europe in 2020<sup>7</sup>

#### **Epidemiology (United States)**

## Most cases are diagnosed at an advanced stage:

 BTC is reported to occur at a rate of 1.2 (GBC), 1.7 (ICC), 1.8 (other) per 100,000 people per year in the United States<sup>8</sup> which is estimated to be ~15,000 patients per year

#### Cases by stage at diagnosis 9,10



#### **Progression**

#### Second-line:

- Survival from first-line treatment is modest, ~35% of patients get second-line, but it ranges by geographical region<sup>11, 12, 13</sup>
- 2L chemotherapy yields response rates of < 10%; mOS of patients is often < 6 months<sup>14</sup> with a recent phase II trial reporting 8.6 months<sup>15</sup>
- ~40-60% of BTC patients have possible targetable alterations with differences between anatomical subgroups<sup>9,16</sup>

9% of GBC .7% of ECC .5% of ICC Overexpress HER2<sup>17</sup>

1. Boge herger JM et al., Precision Oncol. 2018; 2. Lazcano-Ponce E Cet al., CA: Cancer J Clin. 2001; 3. Ouyang G et al., Cancer 2021; 4. Tam V et al., Curr. Oncol. 2022; 5. Mirands-Filho A et al., Jint. J. Cancer 2020; 6. Zhang Y et al., Cancer F gide miology. 2021; 7. GLO BOCAN. World fact sheets (GalBladder), 2020; 8. NO. SEER Explorer: Access Feb 2023. conditions included intrahep, Gallb\_other; 9. Gómez-España MA, et al., Clin Transl Oncol. 2021; 10. Barales JM et al., Na Rev Gastroenterol Hepatol. 2020; 11. Nizzo A et al., Anticancer Research, 2019; 12. Chiang NJ et al., Biomole cules. 2021; 13. Formaro Let al., Br.J Cancer. 2014; 14. Lama roa Aetal., J in Oncol. 2019; 15. Yoo Cet al., Final results (NFTY) abstract 59 presented at ESMO Congress 2022; 16. Bridgewater J Aet al., Am Soc Clin Oncol Educ Book. 2016; 17. Galdy 5 et al., Cancer Metastasis Rev. 2017.

## **Zanidatamab: Targeted Treatment Options are Rapidly Evolving in BTC**



Actionable driver mutations have been identified and are generally mutually exclusive from one another (including FGFR pathway, IDH1, BRAF, NTRK, ERBB2 (HER2) MSI-high or MMR deficiency)<sup>1</sup>

#### **Advanced / Metastatic Biliary Tract Cancers**

First-line treatment options<sup>2</sup>

#### Guideline option from the ABC-02 trial<sup>3</sup>

gemcitabine + cisplatin

ORR = 26%, mPFS = 8.4 months,

mOS = 11.7 months

#### Guideline option from the TOPAZ-1 trial 4,5

cisplatin + gemcitabine + durvalumab

ORR = 26.7%<sub>IA</sub>, mPFS = 7.2 months,

mOS = 12.9 months

#### Recent option from the KN-966 trial<sup>6</sup>

cisplatin + gemcitabine + pembrolizumab

ORR = 28.7% BICR, mPFS = 6.5 months,

mOS = 12.7 months

#### **Progression in Metastatic Biliary Tract Cancers**

Second-line treatment options<sup>2</sup>

#### Guideline option from the ABC-06 trial<sup>7</sup>

FOLFOX ORR= 5%, mPFS= 4.0 months, mOS = 6.2 months

#### Is Targeted Treatment More Effective Than Chemotherapy?

FGFR2 fusions+: mPFS= 7.0 - 9.0, mOS= 17.5 - 21.7 months<sup>8</sup> IDH1 mutation: mPFS = 2.7 months, mOS = 10.3 months<sup>9</sup>

Ongoing Results from HER2 Targeting Agents in 2L+ Trials\*

trastuzumab + FOLFOX mPFS = 5.1 months, mOS = 10.7 months<sup>10</sup>

TDXd (HERB trial) mPFS = 5.1 months, mOS = 7.1 months<sup>11</sup>

trastuzumab + pertuzumab (MyPathway) mPFS = 4.0, mOS = 10.9 months<sup>12</sup>

BRAF: activating serine/t hreonine-protein kinase B-raf kinase; ERB82: receptor tyrosine-protein kinase erB-2; FGFR2 fusions+: fibroblast growth factor receptor 2 fusions and a lterations; FOLFOX: folinic acid, fluorour acil, and oxaliplatin; IDH1: isocitrate dehydrogenase 1; MMR: mismatch repair; MSI: microsatellite instability; NTRK: neurotrophic receptor tyrosine kinase. \* have not received FDA (or any regulatory authority) approval for BTC 2L indication.

1. Valle JW et al., Lancet 2021; 2. Vogel A et al., ESMO Open (BTC Guidelines) 2022; 3. Valle JW et al., NEJM 200; 4. Oh D-Y et al., NEJM 200; 4. Oh D-Y et al., Annals of Oncol 2022; 5. Oh D-Y et al., Annals of Oncol 2022; 6. Fin R et al., ASCO 2024 7. Lamarca et al., J Clin Oncol 2019; 8. Vogel A et al., J Clin Oncol 2023; 9. TIBSOVO US Pl Aug 2021; 10. Lee, C-K et al., Lancet Gastroenter ol. Hepatol. 2023; 11. Ohba A et al., J Clin Oncol 2024; 12. Sweeney et al., J Clin Oncol 2023.

## Zanidatamab: Epidemiology of Gastroesophageal Adenocarcinoma



- Gastroesophageal adenocarcinoma (GEA) encompasses gastric (stomach), gastroesophageal junction (GEJ) and esophagus adenocarcinomas
- As of 2020, global incidence rate of gastric cancer is estimated to be 5.6%, while esophageal cancer is 3.1% <sup>1</sup>
- There is a wide geographic variation incidence: 15- to 20-fold difference between high- and low-incidence regions<sup>4</sup>
- Most patients present at a late stage of disease 1,2,3

#### Gastric Cancer<sup>1,2</sup>

Globally,  $^{\sim}1.1$  million patients diagnosed with an estimated increase of 62% to 1.77 million by 2040

 Majority of gastric cancers are adenocarcinomas (~95%)<sup>5</sup>



of all estimated new gastric cancer cases occurred in Asia in 2020

#### Incidence rates<sup>11</sup>

USA	Europe	Japan
1.2%	3.1%	13.5%

#### Esophageal Cancer<sup>1,3</sup>

Globally, 604,100 patients diagnosed annually, with an estimated increase by 58.4% to ~957,000 by 2040

 85,672 esophageal cancer patients were diagnosed with esophageal adenocarcinoma (EAC)



of those patients were diagnosed with EAC in high developed countries in 2020

#### Incidence rates<sup>11</sup>

USA	Europe	Japan
0.8%	1.2%	2.6%

#### **HER2-Positivity**

HER2+ in GEA ranges 7-34%<sup>6,7</sup>

- Men > Women
- Moderate > Poor differentiated
- GEJ (32.2%) > Gastric (21.4%)
- Intestinal > Diffuse subtype

Prognostic significance of HER2 is unclear, <sup>8</sup> and influenced by:

- Intra-tumoral heterogeneity
- · Treatment line
- Clonal evolution<sup>8,9,10</sup>

1. Sung H et al., (Globocan 2020) CA Cancer J Clin. 2021; with factsheet https://goc.iarc.fr/today/fact-sheets-populations; 2. Morgan E et al., Lanœt 2022; 3. Morgan E et al., Gastroenterology 2022; 4. Sitarz R et al., Cancer Manag Res 2018; 5. Ajani JA, et al., Nat Rev Dis Primers 2017; 6. Gambardella V et al., Ann Oncol 2019; 7. Van Custem E et al., Gastroenterology 2022; 4. Sitarz R et al., Cancer Manag Res 2018; 5. Ajani JA, et al., Nat Rev Dis Primers 2017; 6. Gambardella V et al., Ann Oncol 2019; 7. Van Custem E et al., Gastroenterology 2022; 4. Sitarz R et al., Cancer Manag Res 2018; 5. Ajani JA, et al., Nat Rev Dis Primers 2017; 6. Gambardella V et al., Ann Oncol 2019; 7. Van Custem E et al., Gastroenterology 2022; 4. Sitarz R et al., Cancer Manag Res 2018; 5. Ajani JA, et al., Nat Rev Dis Primers 2017; 6. Gambardella V et al., Ann Oncol 2019; 7. Van Custem E et al., Gastroenterology 2022; 4. Sitarz R et al., Cancer Manag Res 2018; 5. Ajani JA, et al., Nat Rev Dis Primers 2017; 6. Gambardella V et al., Ann Oncol 2019; 7. Van Custem E et al., Gastroenterology 2022; 4. Sitarz R et al., Cancer Manag Res 2018; 5. Ajani JA, et al., Nat Rev Dis Primers 2017; 6. Gambardella V et al., Ann Oncol 2019; 7. Van Custem E et al., Gastroenterology 2022; 4. Sitarz R et al., Cancer Manag Res 2018; 5. Ajani JA, et al., Nat Rev Dis Primers 2017; 6. Gambardella V et al., Ann Oncol 2019; 7. Van Custem E et al., Gastroenterology 2022; 4. Sitarz R et al., Cancer Manag Res 2018; 5. Ajani JA, et al., Nat Rev Dis Primers 2017; 6. Gambardella V et al., Ann Oncol 2019; 7. Van Custem E et al., Gastroenterology 2022; 4. Sitarz R et al., Cancer Manag Res 2018; 5. Ajani JA, et al., Nat Rev Dis Primers 2017; 6. Gambardella V et al., Ann Oncol 2019; 7. Van Custem E et al., Gastroenterology 2022; 4. Sitarz R et al., Cancer Manag Res 2018; 5. Ajani JA, et al., Nat R et al.,

## **Zanidatamab: Targeted Treatment Options For Patients with HER2+ GEA**



Summary: First-line treatment guidelines for patients with HER2+ Gastric and GEJ adenocarcinoma 1,2,3,4

# Advanced / Metastatic HER2+ Gastric or GEJ Adenocarcinoma

Guideline option based on the ToGA trial<sup>4</sup>

Doublet chemo (fluoropyrimidine + platinum)

± trastuzumab

ORR = 47 vs 35% mDOR = 6.9 vs 4.8 months mPFS = 6.7 vs 5.5 months mOS = 13.8 vs 11.1 months

# Advanced / Metastatic HER2+ Gastric or GEJ Adenocarcinoma

Guideline option for patients based on Keynote 811 trial<sup>5</sup> (CPS ≥1 and if no contraindications exist for immunotherapy)

Doublet chemo (fluoropyrimidine & platinum)+trastuzumab ±pembrolizumab

> ORR = 73.2 vs 58.4% mDOR = 11.3 vs 9.5 months mPFS = 10.9 vs 7.3 months mOS = 20.1 vs 15.7months

Early ITT data led to accelerated approval by FDA (ORR: 74vs 52%) May 2021. FDA and EMA approval for PD-L1 CPS≥1 with dataset from second and third interim analyses

NCT03615326

Options for patients with esophageal adenocarcinoma: ToGA (and many other HER2-directed trials in the advanced setting) excluded esophageal adenocarcinoma: in clinic, these patients can be treated with chemotherapy (capecitabine + cisplatin or fluorouracil + cisplatin) + trastuzumab in the first-line setting<sup>1,2</sup>

CPS: combined positive score; GEI: gastroescoptageal junction'; HER2\*: epidermal growth factor receptor 2 positive; HT: intention-to-treat population; mOS: median overal survival.

1. Catenacci et al., ESMO Open 2022 7(1) 2. Ajani JA et al., J Natl Compr Canc Netw 2022; 3. Lordick F et al., Am Oncol 2022; 4. Bang et YJ, Lancet 2010-TOGA updated OS (13.1 vs 11.7months) reported in FDA label, accessed https://www.accessdata.fdag.ov/drugsatfda\_docs/label/2010/103792s5250bl.pdf; 5. Janjigian Y et al., ESMO 2024.

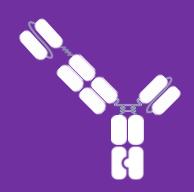
# Zanidatamab: Regulatory Designations, Exclusivity & IP



Designation	Indications/ Patent description	Company	Territory	Status
Breakthrough therapy	BTC that has failed prior systemic therapies	BeiGene	China	Granted
Breakthrough therapy	Previously treated HER2 gene-amplified locally advanced /unresectable or metastatic BTC	Zymeworks	USA	Granted
Fast Track	HER2-overexpressing GEA (in combination with standard of care chemotherapy) and previously treated or recurrent gene-amplified BTC	Zymeworks	USA	Granted
Orphan drug	ВТС	Zymeworks	USA EU	Granted
Orphan drug	Gastric Cancer HER2 expressing Gastric Cancer	Zymeworks	USA EU	Granted
Key patents	Bispecific antigen binding constructs targeting HER2	Zymeworks	USA	Granted

<sup>1.</sup> Patent end date includes certain regulatory extensions including term extensions and supplementary production certificates.





# ZW171 MSLN x CD3 Multispecific

MSLN has strong expression in ovarian cancer (~84%)<sup>2</sup>, with moderate to strong expression levels within NSCLC (~36%)<sup>2</sup>



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

- Optimized 2+1 avidity driven geometry incorporating novel low affinity CD3 binder to direct T cell targeting of MSLN expressing tumors
- Engages immune system via MSLN-dependent
   T cell activation to direct efficient tumor killing with limited cytokine release



### 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

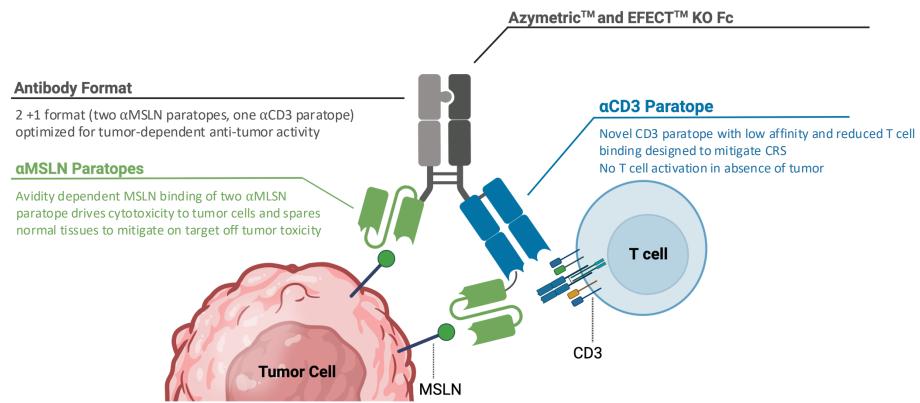


### Status

• Initiated Phase 1 clinical trial (NCT06523803)

# ZW171: Designed to Widen the Therapeutic Window with Enhanced Safety and Anti-Tumor Activity

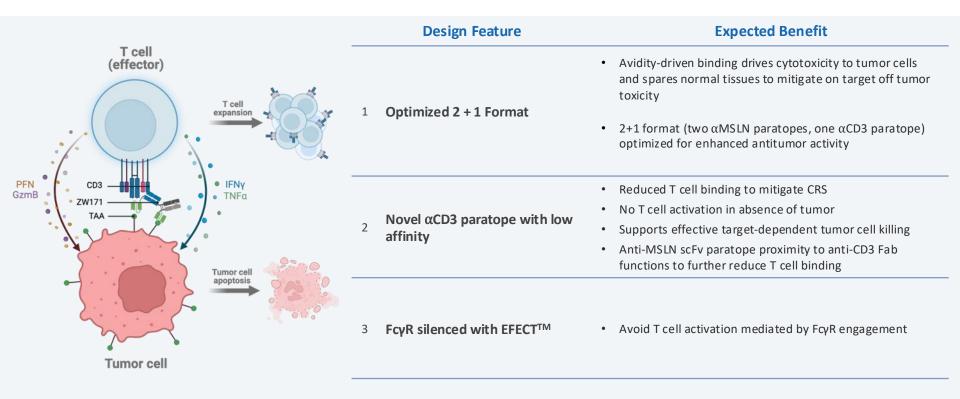




CRS: oyt oki ne re lea se syndro me.

# **ZW171: A MSLN-Targeting T Cell Engaging Bispecific Antibody**

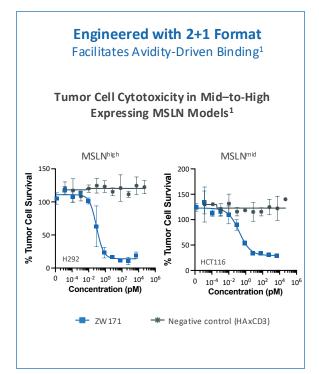


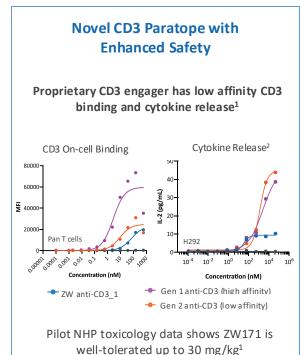


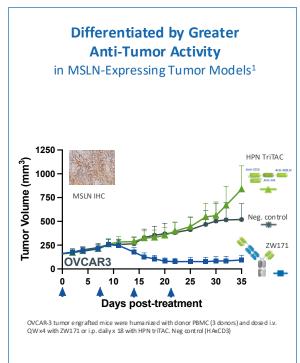
PFN: Perforin; GzmB: Granzyme B; IFNy: Interferon gamma; TNFα: Tumor necrosis factor alpha; CRS: Cytokin e release syndrome; FcyR: fragment crystallizable receptor)

# **ZW171: Key Design Considerations**







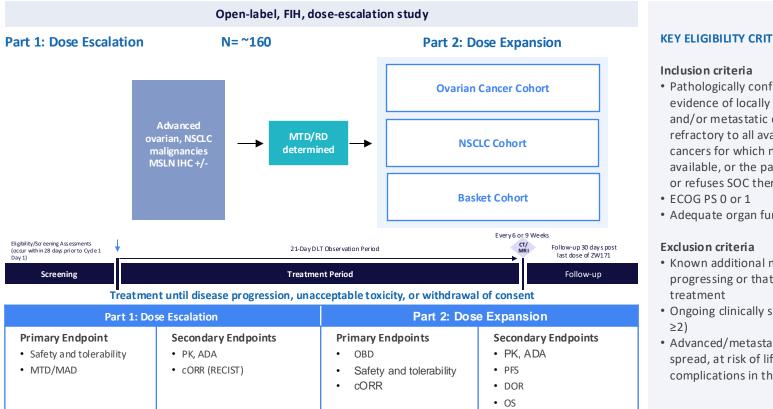


bsAb: bispecific antibody; gen: generation

1. Afacan N et al., Abstract #2942 presented at AACR 2023; 2. Cytokine release from T cell dependent cytotoxicity assay with pan T cells and H292 tumor cells at 5.1 E.T.

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





#### **KEY ELIGIBILITY CRITERIA**

- Pathologically confirmed of cancers with evidence of locally advanced (unresectable) and/or metastatic disease. Cancers that are refractory to all available SOC treatment. cancers for which no SOC treatment is available, or the participant cannot tolerate or refuses SOC therapy
- Adequate organ function
- · Known additional malignancy that is progressing or that has required active
- Ongoing clinically significant toxicity (Grade
- Advanced/metastatic, symptomatic, visceral spread, at risk of life-threatening complications in the short-term

ADA: anti-drug antibodies; cORR: confirmed objective responser ate; DL: dose level; DOR: duration of response; ECOs: Eastern Cooperative Oncology Group; FIH: first in human; GEA: gastrointestinal adenocar grown as; IHC: immunohist ochemistry; MAD: maximum administered dose; MTD: maximum tolerated dose; MTD: maximum tolerated dose; MSLN: mesothelin; mTPI; modified toxicity probability interval; NSCLC: non-small cell lung cancer; OBD: optimal biological dose; OS: overall survival; PFS; progression-free survival; PK: pharmacokinetics; pts: patients; PS: preferred status; Q3W: every 3 weeks; RD: recommended dose; SC: subcuta neous; SOC. to be confirmed



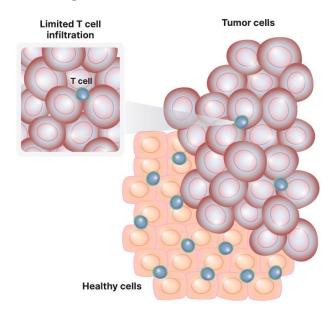
Multispecific Antibody Therapeutic Development

# TriTCE Co-Stimulatory Therapeutic Program

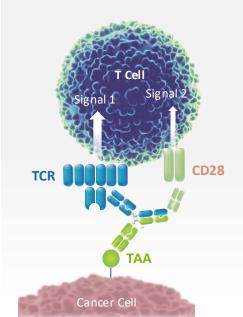
# Zymeworks Trispecific Co-Stimulatory TCE: Overcoming Lack of Efficacy and Durability of Responses in Solid Tumors by Optimization of Signal 1 and 2



# Low T cell infiltration and T cell anergy remain challenges in the treatment of solid tumors



## **Zymeworks Trispecific Co-Stimulatory Program**



Provides Signal 1 (CD3) and Signal 2 (CD28) in one molecule to increase T cell activation and proliferation

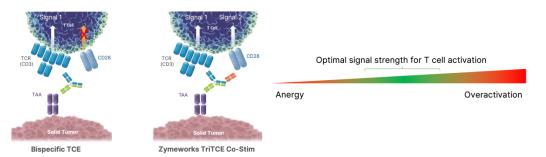
Engineered to balance signal 1 and 2 for optimized **TAA-dependent T cell activation** and expansion

TriTCE Co-Stim have the potential **to provide more durable responses** and reinvigorate T cell responses in 'cold' tumors with lower T cell infiltration

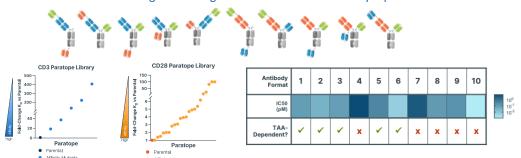
# Novel Engineering and Screening Approach Identifies Co-Stimulatory Trispecifics with Greater Anti-Tumor Activity and Target-Dependent T Cell Activation



Co-Stimulatory trispecific TCEs (TriTCE Co-Stim) have the potential to provide more durable responses and re-invigorate 'cold' tumors with lower T cell infiltration



Novel screening approach enables identification of optimal TriTCE format and paratope affinities for robust 'Signal 1' + 'Signal 2' T cell activation and synapse formation



- Engineering solutions employed to optimize signal strength for T cell activation and anti-tumor activity, including modifications to paratope affinities and antibody format geometries
- In vitro screening identified TriTCE Co-Stim molecules with enhanced TAAdependent anti-tumor activity compared to a bispecific TCE, and transferability across TAA targets

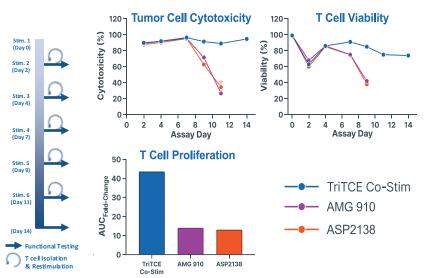
Newbook Let al., TriTCE Co-Stim, next generation costimulatory trisped fix Ticellengagers for the treatment of solid tumors. Abstract #5121 presented at American Association for Cancer Research annual meeting 2023.

# TriTCE Co-Stim: A Next Generation Trispecific T Cell Engager Platform



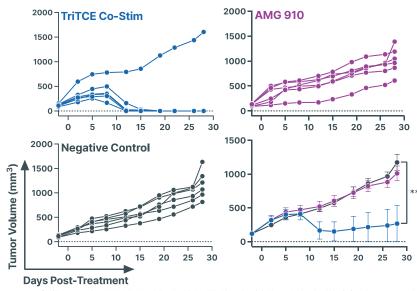
- Designed to enhance T cell activity and provide more durable anti-tumor control
- CLDN 18.2 used as a model tumor antigen and activity benchmarked against clinical stage bispecific TCEs

### Sustained T cell Cytotoxicity and T cell Fitness



# E:T: Effector to Target ratio; NCG: nucle, complement deficient, gamma-irradiated; PBMC: peripheral blood mononuclear œlls; SC: subcutaneous. AMG910 (LDN 18.2/CD3 bispecific Teell engagen) & XSP2138 (LDN 18.2/CD3 2+1 bispecific antibody) replicas produced in-house. Newhook Let et al. Abstrat di RG719 presented at AACR. Annual Meet in 2 CD4.

# **Enhanced Anti-Tumor Activity in Established Gastric Cancer Humanized Xenograft Model**



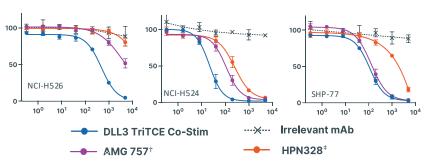
In vivo efficacy following treatment with CDMB2 7 frit ECO-Sim. NCG mice (n=6) were injected 5C with SNU 620 (gast ic) target cells, engost ed with human PBM Cs, and treated IV with 0.05 mg/kg of test antide q twist. A Mcc were a series from the human pBm Cs, and treated IV with 0.05 mg/kg of test antide q twist.

# **DLL3 TriTCE Co-Stim: A Next Generation Trispecific T Cell Engager**



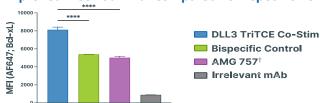
Designed to incorporate CD28 costimulation to improve activity beyond conventional DLL3xCD3 bispecifics by enhancing T cell activity and providing more durable responses in poorly infiltrated 'cold' tumors

### **Enhanced T Cell Cytotoxicity (SCLC)**



DLL3 TriTCE Co-Stim displays superior in vitro cytotoxicity relative to clinical benchmarks across multiple DLL3-positive SQ.C tumor cell lines. Test articles were incubated with Ticels co-cultured with DLL3-expressing tumor cell lines (E:T=1:2) for 7 days and evaluated for cytotoxicity.

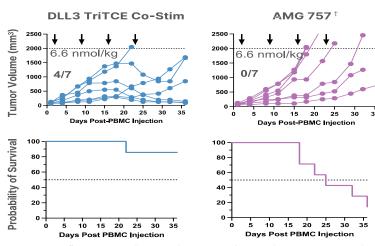
### Improved T Cell Survival Compared To Bispecific TCEs



DLL3 TriTCE Co-Stim Increases T cell prolife ration and upregulation of anti-apoptotic marker Bcl-xL. Test articles (5 nM) were incubated with T @lls co-cultured with NO-H82 cells for 48 hours and evaluated for Bcl-xL expression by flow cytometry. \*\*\*\* p<0.0001

SCIC: small cell lung cancer. + AMG 757 (DLL3/CD3 bispecific tcell engager) produced in-house. Repenning P et al., #bstract #6716 Presented at AACR Annual Meeting 2024.

# Superior Anti-tumor Activity in Established SCLC Humanized Xenograft Model



DLL3 TriCE Co-Stim efficacy in vivo. SHP-77 cells were injected s.c. in NGG mice. Following PBMC humanization, mice were treated IV with test article q1w x.4. Tumor volume over time of mice treated with DL3 TriCE Co-Stim (6.6nmo)/kg), AMG757 6 monl/kg). Full or partial tumor regression was observed in 4/7 micet reated with DL3 TriTCE Co-Stim. Arrows indicate treatment days. Kaplan-Meler curves showing probability of survival of tumor-bearing mice treated with DL3 TriTCE Co-Stim (blue), AMG 757 (purple, MS = 25 days). Death events represent eutharized animals due to reaching experimental endpoint (TV > 2000 mma).

# **TriTCE Co-Stim: Differentiated Co-Stimulatory (CD28) Platform vs. Competitors**



Co-Stimulatory (CD28) TCE Strategies	Zymeworks' Potential Advantage and Limitations of Alternative Strategies		
Zymeworks TriTCE Co-Stim	<ul> <li>✓ Zymeworks TriTCE Co-Stim provides balanced CD3 and CD28 activation to prevent overactivation of T cells<sup>1,2</sup></li> <li>✓ Tumor Target-dependent activity associated with sustained T cell viability and cytotoxicity resulting in improved anti-tumor activity in preclinical models compared to bispecific TCEs<sup>1,2,3,4,5</sup></li> <li>✓ No CD28 binding in absence of CD3 engagement, lowering risk of CD28-mediated immune related adverse events (irAEs), well tolerated in both in vivo CRS models<sup>1,2</sup> and in non-human primates<sup>3</sup></li> </ul>		
CD28xTAA Bispecific (e.g. Regeneron, Xencor)	<ul> <li>□ Optimized for strong CD28 agonism, potentially difficult to optimize by dose adjustment<sup>6,7</sup></li> <li>□ Dependent on presence of signal 1 primed T cells in TME<sup>6,7</sup></li> <li>□ Potential for severe irAEs in combination with anti-PD-1, similar to CPI toxicities<sup>8,9,10,11,12</sup></li> </ul>		
CD3xTAA + CD28xTAA Bispecific Combinations (e.g. Regeneron, Janssen, Roche)	<ul> <li>□ Increased development and challenging dose optimization requirements for two molecules<sup>13</sup></li> <li>□ Potential for CD28 bispecific irAEs<sup>9</sup></li> <li>□ Challenging TAA pairs or non-overlapping epitope targets requirements<sup>6</sup></li> </ul>		
CD28xCD3xTAA Trispecific (Sanofi)	<ul> <li>□ High affinity CD3 and CD28 paratopes, activation of peripheral T cells<sup>14,15</sup></li> <li>□ T cell binding and TMDD observed in the periphery<sup>14,15</sup></li> <li>□ CD28 paratope based on CD28 super-agonist, potentially limiting application<sup>14,15</sup></li> </ul>		

CPI: checkpoint inhibitor; PD-1: programmed cell death protein 1; TMD D: tumor mediated drug disposition; TME: tumor microenvir onment.

1. Newhook et al., Cancer Res. (2023); 2. Newhook et al., SITC (2023); 3. Newhook et al., SITC (2023); 6. Skokos et al., SG. Transl. Med. (2020); 7. Dragovich et al., Cancer Research (2023); 8. Stein et al., Journal Clinical Oncology (2023); 9. Martins et al., Nature Reviews Clin Oncol (2019); 10. Eastwood et al., Rature Reviews Clin Oncol (2011); 12. Hui et al., Science (2017); 13. Humphrey et al. (2011) J Natl Cancer Inst. 14. Seung et al., Nature (2022); 15. Promsote et al., Nature (2022); 15. Pro



# Next Generation CD28 Co-Stimulatory Trispecific T cell Engager

Designed to provide more durable responses in solid tumors and superior activity in 'cold' tumors



### Therapeutic Rationale

 Next Gen TriTCE Co-Stim can provide increased T cell fitness, activation, and proliferation via tumordependent T cell co-stimulation



### **Product Differentiation**

- Novel approach of modular geometry and avidity screening of trispecifics to optimize T cell activation by Signal 1 and Signal 2
- TriTCE Co-Stim show superior anti-tumor activity to bispecific benchmarks and exhibit no activation of T cells in absence of tumor cells



### **Status**

- IND candidate nomination expected in 2H 2024
- Potential to expand utility to additional tumor targets

# **Expansion of R&D Strategy**





## Long-Term R&D Strategy ("ADVANCE")

- Focus on developing new product candidates with the potential for two new IND's annually from 2027+
- Therapeutic focus to be expanded into autoimmune and inflammatory disease
- Expand research interests in multifunctional engineered cytokines and immune modulators



## Therapeutic Optionality

- ADC development to focus on novel payloads and bispecific/biparatopic binding
- MSAT development to focus on novel trispecific platforms, including dual TAA's



### **Financial Structure**

Combination of internally-funded and partnered development programs

# <u>ADVANCE</u> Portfolio Framework



Advancing design of ADCs and Multispecifics to address complex disease states

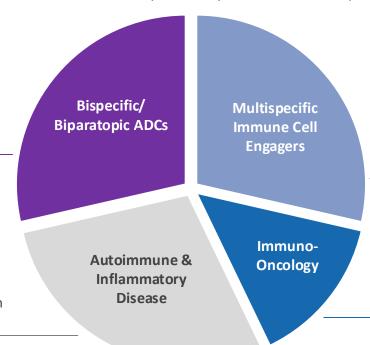
Continue to apply technology to hard-to-treat cancers and expand utility to additional therapeutic applications

## **ADCs**

- Bispecific/Biparatopic(s)
- Novel Payload(s)
- Dual Payloads
- Solid tumors/Hem Onc

### <u>AIID</u>

- Bispecifics
- Dual cytokines or disease pathways
- Existing platform technology application



### Multispecific Cell Engagers

- Next-Gen T Cell Engagers
- Alternative Immune Cell recruitment
- **Dual Tumor Associated Antigens**
- Solid Tumors/Hem Onc

### **Additional IO**

- <u>Cytokine Engineering</u>
- Multifunctional Immune Modulators

Potential for 2 IND-ready molecules per year from 2027+

# Differentiated, Multifunctional Antibody Therapeutics for Oncology and Other Potential Diseases with the Greatest Unmet Patient Need





# On A Mission to Improve the Standard of Care For Difficult-to-Treat Diseases

Committed to transform current standard of care for cancer patients with poor prognosis (e.g., lowest 5-year overall survival)

Potential to expand beyond oncology to AIID patients



### **Integrated R&D Engine**

Current pipeline provides diversity and multiple opportunities for success with 5 novel therapeutics expected to be in active clinical trials by 2026

ADVANCE provides opportunity for further innovation and broader R&D scope with 2 potential IND's annually from 2027+



### **Desired Product Profile**

First and second-line market opportunities

Pursuing products with global peak sales potential >\$1 BN

Strategy to retain US commercial rights and collaborate in ex-US markets

1. Combina ble propriet ary technologies indude: Azymetric ; EFECT ; ProTECT ; ADC Platformincludes cysteine insertion technology and novel payloads.

# Milestone Opportunities in 2024 & 2025





Cash resources\* as of September 30, 2024 **\$374.9M** 



Several opportunities for business development with unencumbered global rights for novel compounds



Substantial potential milestone payments for zanidatamab in GEA with further upside from royalties and commercial milestones



Multiple value generating opportunities expected in 2024 and 2025, with 5 novel therapeutics expected to be in active clinical trials by 2026



**Potential to nominate** 2 candidates every year from 2027+



- Potential China approval for zanidatamab in 2L BTC during 2025
- Pivotal Phase 3 top-line data readout in GEA 1L targeted by our partner Jazz in 2Q 2025

\*includes cash, cash equivalents and marketable securities





# **Company Contacts**

### **Investor Relations**

## **Shrinal Inamdar**

Director, Investor Relations ir@zymeworks.com +1 604 678 1388

## **Media Relations**

## **Diana Papove**

Senior Director, Corporate Communications media@zymeworks.com +1 604 678 1388

