# **zyme**works

## **Research & Development Day**

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

December 12, 2024

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## Today's Agenda



08:30 AM	<b>Zymeworks R&amp;D Vision</b> Dr. Paul Moore	10:20 AM	<b>Beyond Solid Tumors</b> Dr. Paul Moore Dr. Alexey Berezhnoy
08:50 AM	<b>Gynecological Cancer</b> Dr. Susana Banerjee	10:50 AM	<b>Next Generation Technologies</b> Dr. Jamie Rich
09:00 AM	<b>Lung Cancer</b> Dr. Hatim Husain		Stuart Barnscher Dr. Nina Weisser Dr. Thomas Spreter Von Kreudenstein
09:10 AM	<b>Gastrointestinal Cancer</b> Dr. Jaffer Ajani	11:20 AM	<b>Closing Remarks</b> Kenneth Galbraith
09:20 AM	<b>Solid Tumor Program</b> Dr. Jeff Smith Dr. Paul Moore	11:30 AM	Q&A Session #2
09:50 AM	Q&A Session #1	12:00 PM	Networking Session





#### **ZYMEWORKS R&D STRATEGY**

## Zymeworks R&D Strategy

Paul Moore, PhD Chief Scientific Officer



## 10+ Years of Pioneering Multi-Functional Antibody Development



Leading the development of next generation antibody-drug conjugates





Dedicated to Advancing Targeted Therapies that Address Some of The Most Challenging Diseases, Including Aggressive Cancers and Autoimmune Disorders



### 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, J&J, and others. Internally Developed Approved Drug

**Ziihera® (zanidatamab-hrii)** (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



#### Multiple Modalities and Therapeutic Areas

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

**2 INDs Planned in 2025:** ZW220 & ZW251

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



#### Making a Meaningful Difference

## Azymetric<sup>™</sup> – 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 (eg YTE). 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







### Multispecific Antibody Development Requires Optimization of Multiple Parameters Specific to Desired MOA



Understanding the interplay of antibody geometry with optimal paratope affinity, valency, and target epitope is critical to identifying best-in-class multispecific antibody therapeutics





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



ADVANCE

- Potential best-in-class activity requires screening of epitopes, affinities and target engagement geometries
- Unique flexibility of Azymetric<sup>™</sup> enables format and affinity optimization for potential best-in-class attributes
- **Discovery of unique biology** and differentiation to combination approaches

#### Biparatopic

#### Zanidatamab

- Optimization of affinity and format for highest biparatopic activity
- Unique biparatopic MOA
- Superior activity 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



## Multi-Cytokine Blocker

#### ZW1528 (IL4Rα – IL-33)

- IgG-like format, manufacturability and PK
- IL4Ra and IL-33 blockade equivalent to bivalent benchmarks
- Unique bispecific activity, potentially superior to combination



#### **Trispecific T Cell Engager**

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#### 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



5X5

Increased Complexity

## **Historical Observations Guide Our Approach to ADC Design**





1. R. Colombo and J.R. Rich, Cancer Cell 2022, 40(11):1255-1263; 2. R. Colombo et al, Cancer Discov 2024, 14(11):2089–2108; 3. A.T. Lucas et al, Antibodies 2019, 8(1):3; 4. J. Cortés et al, N Engl J Med 2022, 386:1143-1154

## Building Clinically and Commercially Relevant ADCs Requires Careful Selection of Target, Antibody, Linker/Conjugation, and Payload



Historical Observations Guide Our Approach to ADC Design



1. Colombo R, Rich JR. Cancer Cell 2022 (40), 1255-1263; 2. Colombo R, Barnscher SD, Rich, JR. Cancer Res 2023, 83 (7). Abstract #1538 presented at AACR 2023.

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





## **ADC in vitro potency** In vitro potency: target-dependency and bystander activity In vivo efficacy & PK Robust efficacy in multiple CDX and PDX models NHP toxicology & TK MTD in NHPs: DAR8: ≥30 ma/ka DAR4: ≥120 mg/kg Potency

- Moderate potency to enable higher ADC dose
- Bystander active
- ZW191 first in human trial (NCT0655574)
- ZW220 and ZW251 expected to enter clinic in 2025



## Zymeworks' TOPO1i ADC Assets Have Potential to Address Multiple Diverse Patient Populations

	7W101	ZW220	TW251		
	2 10 19 1	2 44 2 2 0	200251		
Target	FRα	NaPi2b	GPC3	Novel targets in digestive tract tumors and heme-onc	
Payload mechanism	TOPO1i	TOPO1i	TOPO1i	Novel mechanisms	
Antibody	Mono	Mono	Mono	Novel formats	
Potential Indications	Ovarian cancer, endometrial cancer, and NSCLC	Ovarian cancer, NSCLC, CRC	Liver cancer		
Stage	Phase 1	IND on track for 1H 2025	IND on track for 2H 2025	Discovery; INDs anticipated in 2027+	

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## 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 FRα 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

TCGA bulk RNA-sequencing data were obtained from TCGA-OV, workflow STAR – Counts from <a href="https://portal.gdc.cancer.gov/repository">https://portal.gdc.cancer.gov/repository</a>. The median TPM (Transcript per Million) for each gene in each patient was plotted on a violin plot using ggplot21. This dataset contains 421 samples (patients) from Ovarian Serous Cystadenocarinoma (OV) and 521 sample from lung adenocarinoma. The width of the shape/violins indicates the density of samples TPM: transcript per Million]. Units additionation of the shape/violins indicates the density of samples TPM: transcript per Million]. Units additionate: TCE: t cell engager: NSCLC: non-small cell lung cancer Periate New York. ISBN 978-3-319-24277-4. https://govers.crg.ADC: antibody-drug conjugate: TCE: t cell engager: NSCLC: non-small cell lung cancer Periate New York. ISBN 978-3-319-24277-4. https://govers.crg.ADC: antibody-drug conjugate: TCE: t cell engager: NSCLC: non-small cell lung cancer Periate New York. ISBN 978-3-319-24277-4. https://govers.crg.ADC: antibody-drug conjugate: TCE: t cell engager: NSCLC: non-small cell lung cancer Periate New York. ISBN 978-3-319-24277-4. https://govers.crg.ADC: antibody-drug conjugate: TCE: t cell engager: NSCLC: non-small cell lung cancer Periate New York. ISBN 978-3-319-24277-4. https://govers.crg.ADC: antibody-drug conjugate: TCE: t cell engager: NSCLC: non-small cell lung cancer Periate New York. ISBN 978-3-319-24277-4. https://govers.crg.ADC: antibody-drug conjugate: TCE: t cell engager: NSCLC: non-small cell lung cancer Periate New York. ISBN 978-3-319-24277-4. https://govers.crg.ADC: antibody-drug conjugate: TCE: t cell engager: NSCLC: non-small cell lung cancer Periate New York. ISBN 978-3-319-24277-4. https://govers.crg.ADC: antibody-drug conjugate: TCE: t cell engager: NSCLC: non-small cell lung cancer Periate New York. ISBN 978-3-319-24277-4. https://govers.crg.ADC: antibody-drug conjugate: TCE: t cell engager: NSCLC: non-small cell lung cancer Periate New York. ISBN 978-3-319-2

## **Development Pipeline**



1-1.OIO



Fc WT: Fast continuous wavelet transform; Mut: Methylmalonyl-CoA mutase; HCC: hepatocellular carcinoma; PDAC: pancreatic ductal adenocarcinoma



#### SOLID TUMOR PROGRAM

## ZW171 and ZW191

Jeff Smith, MD, FRCP Executive Vice President and Chief Medical Officer



### Zymeworks' Pipeline has an Opportunity to Address Unmet Needs Across Indications



	Ovarian Cancer	Endometrial Cancer	NSCLC	SCLC	Pancreatic Cancer	Hepatocellular Carcinoma
<b>ZW171</b> MSLN x CD3 TCE	<ul> <li>Image: A start of the start of</li></ul>					
<b>ΖW191</b> FRα TOPO1i ADC	<ul> <li>Image: A start of the start of</li></ul>					
<b>ZW220</b> NaPi2b TOPI1i ADC	<ul> <li>Image: A set of the set of the</li></ul>					
<b>ZW251</b> GPC3 TOPO1i ADC						<ul> <li>Image: A set of the set of the</li></ul>
<b>ZW2O9</b> DLL3xCD3xCD28 TCE						



## Zymeworks' Therapies Actively Enrolling into Phase 1 Clinical Studies



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





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Adapted from Weidemann S, et al Biomedicines. 2021;9(4):39

CRC: colorectal cancer; FRa: folate receptor alpha; GEA: gastroesophageal adenocarcinoma; IHC: immunohistochemistry; Mod: moderate; MSLN: mesothelin; NSCLC: non-small cell lung cancer; PDAC: pancreatic ductal adenocarcinoma

### 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



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



## ZW171 Mediates Strong Anti-Tumor Activity in Patient-derived *Ex Vivo* and *In Vivo* Models





Lassahn et al., Abstract 2275: Preclinical testing of therapeutic biologics using patient-derived 3D spheroids. Cancer Res 1 April 2023; 83 (7\_Supplement): 2275 IHC: immunohistochemistry; MSLN: mesothelin; NSCLC: non-small cell lung cancer

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





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

ADA: anti-drug antibadies; cORR: confirmed objective response rate; DL: dose level; DOR: duration of response; ECOG: Eastern Cooperative Oncology Group; FIH: first in human; GEA: gastrointestinal adenocarcinomas; IHC: immunohistochemistry; 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; SOC: standard of care; TBC: to be confirmed

## **ZW171 Clinical Development Progress – Dose Escalation Territories**





## FRα-expressing Cancers Represent a Significant Commercial Opportunity<sup>1-7</sup>



- Potential first and best-in-class in FRα-high endometrial, NSCLC and FRα-mid/low solid tumors
- Potential best-in-class opportunity in FRα-high ovarian cancer



FRa: folate receptor alpha; NSCLC: non-small cell lung cancer; TNBC: triple negative breast cancer

1. Senol S, et al. Int J Clin Exp Pathol. 2015;8(5):5633-5641; 2. Omote S, et al. Med Mol Morphol. 2018;51(4):237-243; 3. Oza AM. SGO. 2021; 4. O'Shannessy DJ, et al. Oncotarget. 2012;3(4):414-425; 5. Nunez MI, et al.

J Thorac Oncol. 2012;7(5):833-840; 6. D'Angelica M, et al. Mod Pathol. 2011;24(9):1221-1228; 7. Scaranti M, et al. Nat Rev Clin Oncol. 2020;17(6):349-359.



### **ZW191: Key Design Considerations**



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

Internalization **Payload Delivery** intensity cell (nM) <sup>2</sup>ayload in **AF488 Tumor Spheroid Penetration** ZW191 mAb (from ZW191) Mirvetuximab (from Elahere™) Farletuzumab (from MORAb-202) SRP1848-H01 (from STRO-002) F131 (from PRO1184) Non-targeted control mAb center Internalization of AF488 labelled antibodies to KB-Hela cells after 24 hrs at 100 nM; Mass-spec. guantification of internalized payload following 24-hour penetration of AF488 labelled antibodies as quantified by high content imaging of spheroid layers at 24 hours post-treatment at 50 nM Wong J et al., 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

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



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





<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 preliminary antitumor activity data from 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. Clinical Trials gov ID: NCT06555744. ADA: anti-drug antibody; ADC: 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 performance status; FRc: folate receptor alpha; IHC: immunohistochemistry; IV: intravenous; MTD: maximum tolerated dose; NSCLC: non-small cell lung cancer; ORR: objective response rate; PD: pharmacodynamics; PK: pharmacokinetics; Q3W: every 3 weeks; 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; TOPO1: topoisomerase-1 inhibitor.



## **ZW191 Clinical Development Progress**





US FDA: U.S. Food and Drug Administration; PDMA: Prescription Drug Marketing Act; TGA: Therapeutic Goods Administration; MFDS: Ministry of Food and Drug Safety; HAS: Health Sciences Authority

## Multiple Candidates in Development Offer Strategic Pivot Points







#### SOLID TUMOR PROGRAM

## ZW220 and ZW251

Paul Moore, PhD Chief Scientific Officer





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



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## ZW220: Potential Utility in Multiple Cancers; on Track for Clinical Studies in 1H 2025<sup>1,2,3</sup>





mAb: monoclonal antibody; PDX: patient derived xenograft; MTD: maximum tolerated dose; T1/2: half-life; GLP: good laboratory practice

1. Hernandez Rojas A et al., Abstract #1533 presented at AACR 2023; 2. Hernandez Rojas A et al. Presentation at World ADC 2023; 3. Hernandez Rojas A et al. Eur. J. Cancer (2024), 211, 114535.

### ZW251: Potential Utility in Hepatocellular Carcinoma<sup>1,2,3</sup>; on Track for Clinical Studies in 2025



ZW251: 20 mg/kg ZW251: 60 ma/kg ZW251: 120 mg/kg



HCC: Hepatocellular carcinoma; PDX: patient derived xenograft; MTD: maximum tolerated dose; T1/2: half-life; GLP: good laboratory practice

1. Madera L et al., Abstract #2658 presented at AACR 2023; 2. Madera L et al. presentation at World ADC 2023; 3 Madera L et al., Abstract #177 presented at EORTC-NCI-AACR 2024



#### SOLID TUMOR PROGRAM

## Product Candidate Nomination: ZW209 DLL3 x CD3 x CD28 TriTCE

## Overcoming Lack of Efficacy and Durability of T cell Mediated Responses in Solid Tumors Through Incorporation of CD28 Co-stimulation



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



**Opportunity Expected Benefit** Enhances proliferation • and survival of CD8 No signaling and CD4 T cells<sup>1</sup> ٠ independent of TCR Ability to expand and Opportunity to **CD28** maintain Tpex and • engineer safe and prevent Tex<sup>2</sup> effective conditional CD28 signaling critical • co-stimulation for Teff expansion and epitope spreading<sup>3,4</sup>

Arvedson T et al Ann Rev Cancer Biol 2022

<sup>1</sup>Lotze et al., Nature Reviews Immunol 2024; <sup>2</sup> Humblin et al., 2023, Sci. Immunol.; <sup>3</sup> Prokhnevska et al., Immunity 2023; <sup>4</sup> Friedrich et al., Camcer Cell 2023



## **CD28 Co-stimulatory T Cell Engager Approaches**



#### **Bispecific CD28 T cell Engagers**



#### 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



#### Making a Meaningful Difference



#### 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<sup>™</sup> screening of various antibody geometries and CD3 and CD28 paratope affinities
## TriTCE Co-stim: A Next Generation Trispecific T Cell Engager Platform







**TriTCE Co-stim Lead Format Selection** 

# TriTCE Co-stim Designed to Optimize T cell Binding, Activation and Anti-Tumor Activity



Conditional CD28 Co-stimulation and Obligate cis T cell Binding

T cell Pro	T cell liferation		Design Feature	Expected Benefit
Cytokine Production	1		Balanced activation of CD3 and CD28	Potential to provide more durable responses and activate T cell responses in 'cold' tumors with lower T cell infiltration
CD28TCR	2	2	Low affinity CD3 and CD28 binding	Prevents overactivation of T cells and reduces risk of CRS and irAEs
	3	3	Obligate <i>cis</i> T cell binding	No T cell-to-T cell bridging or T cell fratricide
	umor cell poptosis	ļ	Conditional CD28 engagement	Requires co-engagement of CD3
	5	5	Enhanced target- dependent activity	Low T cell binding and no T cell activation in periphery or absence of tumor target
	· · · · · · · · · · · · · · · · · · ·			

CRS: Cytokine release syndrome; irAEs: immune-related adverse events





Adapted from: Rojo F et al Lung Cancer 2020. International real-world study of DL12 expression in patients with small cell lung cancer. Puca L et al. Delta-like protein 3 expression and therapeutic targeting in neuroendocrine prostate cancer. Sci Transl Med. 2019. 11: eaav0891. Liverani C et al Endocrine Pathol 2021. Diagnostic and Predictive Role of DL13 Expression in Gastroenteropancreatic Neuroendocrine Neoplasms. 32:309-27. Hermans BCM et al. DLL3 expression in large cell neuroendocrine carcinoma (LCNEC) and association with molecular subtypes and neuroendocrine profile. Lung Cancer 2019. 138:102-8. TCE, 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<sup>™</sup> 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





## **ZW209: Mediates Enhanced and Sustained Cytotoxicity**



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



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



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AMG 757 produced by Zymeworks for internal preclinical studies









## ZW209 DLL3 TriTCE Co-stim

Therapeutic Program for the Treatment of DLL3-Expressing Solid Tumors



#### Design

- Trispecific TCE with potentially optimized TAA, CD3, CD28 binding affinity and geometry using Azymetric<sup>™</sup> and EFECT<sup>™</sup> platforms
- Obligate cis-T cell binding with conditional CD28 engagement

### Mechanism

- Targets DLL3-expressing tumor cells and CD3 and CD28 on T cells
- DLL3-dependent T cell mediated cytotoxicity prevents activation of effector T cells in the absence of TAA



### **Profile & Opportunity**

- Differentiated long term cytotoxicity at low effector to T cell ratios, increased T cell proliferation, survival, and anti-tumor activity with reduced cytokine release
- First in class TriTCE Co-stim opportunity on validated target
- Potential to increase durability of responses in DLL3 expressing cancers
- On track for IND submission 1H 2026





## SOLID TUMOR PROGRAM

## Q&A Session #1



## **ADVANCE PROGRAM**

## Solid Tumors and Beyond

Paul Moore, PhD Chief Scientific Officer



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## <u>AD-VAN-CE</u> Portfolio: Progressing "First In Class" Therapeutics



- 1. Focus on novel "first in class" multi-functional therapeutics: novelty of modality, mechanism of action, 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.

## <u>Antibody-Drug Conjugates</u>

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

#### <u>Cell Engagers</u>

- Muti-specific 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)





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



SEER\*Explorer, accessed 10 Oct 2022

AML: AML: Acute myeloid leukemia, CRC: colorectal cancer; MM: Multiple myeloma, NSCLC: Non-small cell lung cancer, SCLC: Small cell lung cancer, NHL: non-Hodgkin lymphoma

## **Opportunities in NHL, MM, AML Compatible with ZYME Technology**





- Despite good outcomes for some, many patients with common blood cancers are not cured by frontline therapies. Patients with refractory or multi-drug resistant disease need more effective therapies.
- Outcomes for patients with AML are especially poor.
- ADCs and TCEs have proven to be important therapeutic classes to treat ALL, cHL, MM and NHLs. ZYME's differentiated technologies and nextgeneration multi-functional therapeutics may improve upon earlier approaches to provide better outcomes for patients.
- ZYME designed ADCs and TCEs provide opportunity for combination strategies with SOC, and potentially with each other (e.g., induction v maintenance).

Competition = program count from Cortellis filtered by indication of interest, development stage, and active development since 1 Jan 2018; US incidence is approximate – GLOBOCAN does not split leukemias or lymphomas by cell type; NHLs are diverse and comprised of B-, T- and NK cell neoplasms; CLL/SLL are considered NHLs, but are split out due to distinct treatment; chart reflects 5-year relative survival in aggregate but aggressive lymphomas e.g. DLBCL and indolent lymphomas e.g. FL, have dramatically different survival outcomes i.e. 5-Year Relative Survival for FL is ~95%, 5-Year Relative Survival for FL is ~90%c/c

## Cancer Immunity and Autoimmunity are Two Sides of the Same Coin



- The resounding recent success of cancer immunotherapy has spurred rapid development in precision medicine
- Many cancer immunotherapy drugs aim to unleash endogenous cancer responses
- The regulatory mechanisms that hold back cancer immunity are often mechanisms that evolved to limit autoimmunity
- Therefore, by applying knowledge of these pathways, Zymeworks could address AIID
- To expand the breadth of Zymeworks' pipeline, we can take advantage of significant internal expertise and existing molecules to rapidly develop programs in AIID



AIID: Autoimmune and Inflammatory Disease

## Harnessing Zymeworks' Strengths to Address AllD





### **Autoimmune Disease:**

- Chronic immune responses
- Lymphocytes
- Self antigens
- Amenable to cell depletion approaches
- $\begin{array}{l} \rightarrow \text{SLE} \\ \rightarrow \text{RA} \\ \rightarrow \text{T1D} \end{array}$

B cell depletion and immune cell reprogramming compatible with Zymeworks' next-generation T cell engagers.



### Inflammatory Disease:

- Chronic dysregulation of inflammation
- Innate immune cells
- Environmental factors
- Amenable to cytokine blockade
- $\rightarrow$  Asthma
- $\rightarrow$  COPD
- $\rightarrow$  Atopic dermatitis
- → IBD

Multispecific antibody molecules to simultaneously block multiple pathways to enhance therapeutic response.



## **ADVANCE Program Presenters**





Alex Berezhnoy, PhD Director Immunology



Jamie Rich, PhD Senior Director Technology ADC Therapeutic Development



Senior Director Preclinical Programs ADC Therapeutic Development



Nina Weisser, PhD Senior Director Multispecific Antibody Research



Thomas Spreter Von Kreudenstein, PhD Senior Director

Protein Engineering





## **ADVANCE PROGRAM**

## ZW1528: IL-4Rα x IL-33 Bispecific Blocker for COPD

Alex Berezhnoy, PhD Director, Immunology



## Bispecific Antibody Therapeutics as the Potential Answer to Complex Biology of Autoimmune and Inflammatory Diseases





Zymeworks brings a wealth of experience in this area, both within our R&D team, as well as with previous collaborations in this space.



## Rationale for Anti-IL-4R $\alpha$ as an Anchor Arm

- Dupixent<sup>®</sup>/dupilumab is a highly successful mAb targeting IL-4Rα
  - Approved for multiple atopic and inflammatory diseases
  - Generated revenues >\$11Bn in 2023
- Blocking IL-4R $\alpha$  inhibits both IL-4 and IL-13 signaling
  - Two key cytokines responsible for driving Type II inflammation
- Multiple cytokines drive pathology of respiratory inflammation
  - Add inhibition of an additional inflammatory pathway to augment or improve on monotherapy effects
  - ZYME opportunity to develop more efficacious molecules





- Aim at complete, prolonged blockade of IL-4Rα
- Utilize potential advantages of local retention
- Take advantage of IgG-like geometry (PK, CMC)



## IL-33 as a Bispecific Arm for COPD and Other Respiratory Diseases



- IL-33 is a tissue alarmin released in response to epithelial damage
  - Acts on a range of cells e.g., neutrophils, Th2 cells, eosinophils, and mast cells
- Initiates and amplifies inflammatory response Perpetuates chronic immune response
  - May also drive tissue remodelling in chronic inflammatory diseases e.g., COPD and asthma
- Clinical proof-of-concept for targeting IL-33
  - In former smokers with COPD, and in asthma
  - Phase III trials underway for anti-IL-33 mAbs Itepekimab [Regeneron / Sanofi] and Tozorakimab [Astra Zeneca]



# IL-4Rα x IL-33 Bispecific Provides Opportunity to Treat Broader Set of COPD Patients with Single Molecule

Anti-IL4Rα (Dupixent<sup>®</sup>) and anti-IL-33 (itepekimab) are being developed to treat different COPD populations



Anti-IL4R $\alpha$  effective in Type 2 COPD (those with eosinophilia)

#### Anti-IL-33 may prove to be effective in former smokers

Post-hoc analyses of phase II data (NCT03546907)

Diagrams taken from Sanofi R&D day presentation 2023

#### IL-4Rα x IL-33 bispecific provides opportunity to treat broader set of COPD patients with single molecule



IL-4Ra x IL-33 bispecific to combine the effects of two mAbs

#### Potential for increased efficacy in monotherapyresponsive patients





## ZW1528 IL-4Rα x IL-33 Bispecific

Inhibits multiple pathways within complex pathophysiology of inflammation



#### Design

- In-house antibody discovery of novel anti-IL4Rα and IL-33 paratopes
- Native IgG-like geometry; highly manufacturable, compatible with half-life extending Fc modifications
- Clinically-validated targets; core arm mediates complete, prolonged IL-4Rα blockade. Second arm adds inhibition of IL-33 - an upstream cytokine involved in perpetuating chronic inflammation.



#### Mechanism

- Inhibition of 3 cytokines in single asset
- Potential advantages of local retention



### Profile

ZW1528 potently blocks of two complementary pathways of respiratory inflammation

## ZW1528 Effectively Blocks of IL-4/13 and IL-33 Signaling





- Potency of ZW1528 similar to (bivalent) benchmark mAbs
- ZW1528 blocks both targets

Molecules generated by Zymeworks from published sequence



## ZW1528 Exhibits Favorable In Vitro Potency in Primary Cells





#### Blockade of IL-4-driven Monocyte activation



#### Blockade of IL-33 induced IFN-γ secretion in PBMCs



Superior potency vs IgG1 effector-negative IL-4Ra mAb Superior potency vs Itepekimab in PBMC (blocking IFN- $\gamma$ )

## ZW1528 Demonstrate IgG-like PK and Block IL-4Rα In Vivo





Suppression of IgE after inhaled allergen challenge

- IgG-like pharmacokinetics ٠
- Suppression of IgE after inhaled allergen challenge •

Left: PK in Tg32 mice after 5 mg/kg i.v. administration Right: Challenge with house dust mite (HDM) inhalation





## ZW1528 Demonstrates Biomarkers of IL-4Rα/IL-33 Blockade in NHP



30



**IL-4Rα Receptor Occupancy** 

- IgG-like pharmacokinetics in non-human primates (NHP) •
- Biomarkers of IL-4Rα/IL-33 blockade up to 6 weeks after single administration •

Cynomolgus monkey (N=2) were dosed with ZW1528 i.v. at 10 mg/kg





# ZW1528-mediated Blockade of Primary Cell Activation is Superior to Jupilumab and Itepekimab



IL-33 and IL-13 activate human keratinocytes





- IL-13 and IL-33 treatment induces disease-relevant genes in keratinocytes
- ZW1528-mediated blockade is superior to dupilumab, itepekimab and the combination of two antibodies

Molecules generated by Zymeworks from published sequences. CCL2 is also known as macrophage chemoattractant protein (MCP-1) and has a role in attracting pro-inflammatory cells.

## Expansion to AIID: Broadens Portfolio using Validated IL-4Rα Blocker



Program	Target Pair	Target Validation
<b>ZW1528</b> (IND-enab)	IL4Ra x IL-33	Anti-IL4Rα approved in COPD Anti-IL-33 in pivotal COPD phase 3 studies
<b>ZW1572</b> (Candidate nomination)	IL4Rα x IL-31	Anti-IL4Rα approved in Atopic Dermatitis Anti IL-31 validated clinically for itch control
<b>Next gen</b> ( <u>AD</u> VAN <u>CE</u> )	IL4Rα x Target A	Anti-IL4Rα approved in Asthma Target A efficacious in multiple AllDs





## ZW1572: Bispecific Inhibitor of IL-4Rα and IL-31 for Atopic Dermatitis



#### Enhanced blockade of IL-31



## Suppression of CCL2 induction in keratinocytes



Superior IL-31 blockade vs. (bivalent) clinical benchmarks

Superior potency vs. individual mAbs in primary cells



## Summary: ZW1528, an IL-4R $\alpha$ x IL-33 Bispecific Antibody



#### IL-33 bispecific antibody has the potential to be a significant new treatment option for patients with COPD

#### ZW1528 potently blocks two complementary pathways of respiratory inflammation

- Repression of Th2 driven inflammation via blockade of IL-4Rα and inhibition of (non-Th2) IL-33-driven inflammation
- Favourable PK profile and biomarkers of IL-4Rα/IL-33 inhibition in non-human primates up to 6 weeks after administration
- Preliminary evidence of advantages of bispecific blockade in disease-relevant cell types

#### ZW1528 aligns with requirements for successful AIID therapeutics

- Disease-modifying advantages of co-localized dual target blockade
- Stable IgG-like bispecific molecule (easy-to-manufacture, expected COGS advantages)
- Designed to allow for less frequent dosing (patient convenience and compliance)

#### Zymeworks' AllD opportunity

- Potential to benefit mixed-type COPD patients, and increase benefits for other COPD patient populations
- Clinical potential in other atopic diseases (asthma and atopic dermatitis) with established IL-4Rα and/or IL-33 role
- Spearhead development of other Zyme AIID therapeutics





## **ADVANCE PROGRAM**

## Next Generation Technologies



## **ADVANCE PROGRAM**

# Antibody-Drug Conjugate Technologies

Jamie Rich, PhD Senior Director Technology ADC Therapeutics



## **Stuart Barnscher** Senior Director Preclinical Programs ADC Therapeutics

## ADVANCE: Novel Payloads and Optimized Antibody Formats for Next Generation ADCs



We are developing novel payload mechanisms & antibody formats to suit disease and target biology



### ADVANCE ADCs will support our 2027+ IND pipeline

Therapeutic Applications

- Solid Tumors: current focus GI tumors including CRC, PDAC, esophageal, HNSCC
- Heme Onc: current focus AML

CRC: Colorectal cancer; PDAC: Pancreatic ductal adenocarcinoma; HNSCC: Head and neck squamous cell carcinoma; AML: Acute myeloid leukemia



## Novel Payloads to Help Drive Innovation in the ADVANCE ADC Portfolio



#### 40 years of ADC payloads:1



Imperative: novel payload discovery - for next-gen ADCs



Payload mechanisms tailored to Zymeworks' **priority indications** 

Emphasis on **drug-like properties** of payloads

#### Challenging nature of ADC Platform development necessitates multiple approaches



1. R. Colombo et al, Cancer Discov 2024, 14(11):2089-2108.

## Our Hypothesis on ADC Mechanism Guides our Approach to Novel Payload Discovery



#### Criteria for novel payloads:

- 1. Moderate potency to enable higher protein dose
- 2. Bystander activity
- 3. Evidence of activity in disease indication of interest

1. R. Colombo and J.R. Rich, Cancer Cell 2022, 40(11):1255-1263; 2. R. Colombo et al, Cancer Discov 2024, 14(11):2089-2108.

## Four Novel Payload Mechanisms in Discovery to Help Drive Innovation Beyond TOPO1i and Auristatin Platforms



## Challenging nature of ADC Platform development necessitates multiple approaches



Current focus in diverse GI tumor indications

Biomarker driven application in solid and liquid tumors

Interest in AML, PDAC, and CRC targets

## **Protein Synthesis Inhibitor ADCs Demonstrate Preclinical Promise**



- Targeting a pathway critical to cancer cell growth enables potential first in class ADC opportunity
- Optimized ADCs demonstrate potency, selectivity, strong anti-tumor activity, and promising rodent tolerability
- Evaluation in target indications is ongoing (H&N, PDAC, CRC); planned non-human primate toxicology studies


## Inhibitors of Key Oncoprotein Serve as Novel ADC Payloads



- First in class ADC opportunity with cytotoxic mechanism that is well validated in our priority indications
- ADC approach may improve on small molecule drugs via increased exposure, efficacy, and tolerability
- Currently evaluating in vivo efficacy





## Multi-Pronged Approach to Antibody Discovery:



Seeking Optimal Antibodies for Development of Differentiated ADCs



## **Selection of Desired Antibody Format for ADC Assets**



due to target co-engagement

- Generation of differentiated fit-for-purpose ADCs is enabled by a flexible antibody discovery workflow and the Azymetric<sup>™</sup> platform
- Target expression and biology may dictate the use of one format over another



and antigen clustering

 Internalization dependent on target biology and specific epitope

## Monospecific Targeting: ADVANCE Solid Tumor ADC#1



A monospecific format was selected for this program due to the small extracellular domain of the target, limited epitope diversity, and the superior characteristics of the lead monospecific over the clinical benchmark



## **Biparatopic Targeting: ADVANCE Solid Tumor ADC#2**



A biparatopic format is being evaluated for this program due to broad epitope diversity, enhanced internalization profile, and superior anti-tumor activity compared to a lead monospecific antibody



## **Bispecific Targeting: ADVANCE AML ADC**



A bispecific format is being evaluated for this program to overcome individual target heterogeneity and to enhance functionality by co-targeting cells that express both targets



#### **Superior Binding**

#### **Enhanced Internalization**



AML: acute myeloid leukemia; ADC: antibody drug conjugate; PoC: proof of concept; TAA: tumor associated antigen



For solid tumors (GI tract cancers) and heme-onc will help to support our 2027+ investigational new drug application pipeline



#### **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



#### **ADVANCE PROGRAM**

# **Multispecific Antibody Technologies**



**Nina Weisser, PhD** Senior Director Multispecific Antibody Research



**Thomas Spreter Von Kreudenstein, PhD** Senior Director Protein Engineering

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



#### Plug and Play Platforms to Potentially Build Differentiated Therapeutic Cell Engagers





## ADVANCE: Enhancing Functionality and Specificity to Help Improve Responses Across Diverse Therapeutic Areas



zvmeworks

## ZW239: CLDN18.2 Targeted TriTCE Co-stim to Help Improve Depth and Durability of Responses in CLDN18.2 Expressing Tumors





Making a Meaningful Difference

8:



## Novel Tumor Targeting to Help Improve Treatment Responses Across Diverse Solid Tumors



Focus indication of high unmet need Multiple Solid Tumor Indications **Biological challenge limiting responses** Low T cell Infiltration & T cell Dysfunction Tailored engineering solutionsNovel Target TriTCE Co-Stim

100%

#### Multi-indication TriTCE Co-stim to novel target

Novel proteomic approach<sup>1</sup> used to identify **unique membranous tumor-specific targets** with ideal TCE target profile

- No/minimal normal tissue expression
- Supportive biology and expression profile
- Novel target with multi-indication potential



 All targets that can be identified using this approach have already been identified

 40% protein expression explained by mRNA abundance

#### Target Expression on Tumor



**Cancer Indications** 



- ✓ 60% protein expression only identified by OGAP<sup>®</sup> and not predicted by mRNA
- OGAP<sup>®</sup> contains targets that mRNA prediction misses, as well as first-in-class targets not previously identified / known

#### **Target Expression on Normal Tissues**



Normal Tissue



## **Overcoming Antigen Escape and T cell Dysfunction to Help Improve Treatment Responses in AML**



Focus indication of high unmet need AML	<b>Biological challenge limiting responses</b> Healthy Tissue Expression, Antigen Escape & T cell Dysfunction	Tailored engineering solutionsMulti-targeted Co-Stim
Biological Challenge	Limitation of Mono-antigen Targeted Therapies	Solution
Heterogeneous intertumoral antigen expression	Antigen escape and treatment failure <sup>1</sup>	Multi-antigen targeting with co-stimulation
Lack of a clean single target between AML blasts, LSCs and healthy cells	Narrow therapeutic window	
T cell dysfunction <sup>2</sup>	Bispecific TCE resistance and lack of long-term responses <sup>2</sup>	Representative

Selective tumor cytotoxicity in presence of 3 or 2 target antigens



1. Atar 2024 Leukemia, 38; 2.Kazerani et al. 2024 Leukemia, 38. AML, Acute myeloid leukemia; LSC, leukemic stem cell; TCE, T cell engager



# Multiparameter Screening using Azymetric™ Identifies Candidates with the Desired Biology





## ADVANCE Multispecific Cell Engagers

For difficult to treat tumors with complex disease biologies in oncology and hematology to support our 2027+ investigational new drug application pipeline

## **zyme**works

#### **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<sup>™</sup> facilitates high throughput multiparameter antibody screening to identify molecules with the desired biology

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

- Focusing on indications with high unmet need and complex biological hurdles
- 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

## Zymeworks' Technology Development Approach: Integration of Engineering and Drug Discovery Driving Differentiation



- Cross-functional approach critical to enable 'Technology Driven' innovation and differentiation
- 10+ years of structure-based Protein Engineering and Design and in-house tool development
- Critical learnings for Multispecific Engineering and further in-house Technology Development



# Integration of AI/ML with Azymetric™ Engineering Expertise Enables Novel Technology Driven Drug Development





## Next Gen Technologies: Conditional Masking Technologies



- Internal development of highly efficient tumor specific ٠ protease cleavage sequences
- Masking technology application for TCE and TriTCE ٠
- Internal IL-12 program using attenuated IL-12 displays ٠ higher therapeutic window than clinical competitors

#### Proprietary Protease Cleavable Sequences

- Highly efficient cleavage compared to benchmark
- Low peripheral cleavage in non-human primates
- Tested in different preclinical programs .





#### **Conditionally Masked Cytokines**

Novel approach of conditionally masked, attenuated IL-12



# Next Gen Technologies: Novel Engineering for Autoimmune and Inflammatory June Indications

#### **T Cell Engager Engineering for AllD**

Significant opportunity for enhanced B cell depleting therapies for AIID

Critical engineering for high activity with reduced cytokine release syndrome potential

ZW has panel of anti-CD3 binders with fast Kon/off and different epitopes to fine tune activity





Name	Epitope	k <sub>on</sub> (1/Ms)	k <sub>off</sub> (1/s)	K <sub>d</sub> (nM)
ZW1	Epitope 1	1.38E+05	3.12E-03	22.7
ZW2	Epitope 2	5.20E+05	4.08E-03	7.84
ZW3	Epitope 1	1.62E+05	1.10E-02	68.3
ZW4	Epitope 2	1.45E+05	1.26E-02	87.1
ZW6	Epitope 1	1.59E+05	2.54E-02	159.9

#### ZW fast Kon/off CD3





#### Novel Bispecific Cytokine Antagonists

Additional IL4Ra-X bispecific cytokine antagonists

Engineering for optimized PK

Bispecific engineering for superior potency to IL-4R  $\alpha$  comparators and bispecific advantage vs. combination



## Building on 10+ Years of Protein Engineering and Multispecific Development: Continued 'Technology Driven' Innovation



Integrated Approach of Protein Engineering and Technology Development  $\rightarrow$ 



zvmeworks



#### **RESEARCH & DEVELOPMENT DAY**

# R&D Strategy Summary: 2025-2027

Kenneth Galbraith Chair and CEO



## **R&D Strategy Summary for 2025-2027**





- 5 x 5 solid tumor portfolio completed 18 months ahead of original target
- Solid tumor portfolio expansion focused on mainly digestive system cancers and certain other unmet needs
- Patient populations of interest to expand beyond solid tumors to include heme cancers and AIID

# Image: Second State Image: Second

- Investment in preclinical research and capabilities over 2022-24 allows for acceleration of ADVANCE strategy
- Zanidatamab experience, focused efforts and quality drives higher probability of success in portfolio
- Preclinical, clinical and TMO groups built to manage active portfolio of candidates across expanded focus areas
- R&D investment balanced across clinical candidates and preclinical research over 2025-2027

Growth

- Partnering, strong target product profiles and attrition in development will maintain a manageable portfolio of opportunities over time
- New product candidates will continue to add novelty, differentiation and value to the product portfolio through 2027





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







## **R&D Organization**



# Early Research & Development

- Full internal capabilities for multi-functional therapeutics development
- 150-person group located in Vancouver laboratories
- Capacity to sustain current R&D productivity with core focus on internal development vs. in-licensing
- Building novel biology/target capabilities

### Early-stage Clinical Development

- Geographically dispersed capabilities located between West Coast North America, Dublin, and Singapore
- Strong outsourcing model
- 35-person group
- Capacity to manage 5-6 early-stage clinical candidate portfolio
- Specialization between solid tumors, heme cancers and AIID

### TMO & Quality

- Strong outsourcing model
- Benefit from zanidatamab
   experience
- 30-person group located on West Coast NA
- Capacity to manage 10-12
   product candidates

Over the past 18 months we have built an internal organization globally to actively manage ~5-6 early-stage wholly-owned clinical programs



## **Current Financial Status:**

- Cash resources<sup>1</sup> of approx. \$375M (as of Sept 30, 2024)
- Additional development activities in AIID and ADVANCE, along with nomination of ZW1528 for COPD, was executed while maintaining cash runway
- Anticipated cash runway into 2H 2027, which includes certain anticipated regulatory milestone payments

# Potential sources to extend cash runway beyond 2H 2027:

- Additional regulatory approval and commercial milestones for zanidatamab from Jazz and BeiGene
- Tiered royalties between 10-20% from Jazz and 10-19.5% from BeiGene sales (up to 20% when royalty reduction of 0.5% reaches cap in the low double-digit millions of dollars)
- Additional payments from legacy technology platform collaborations
- Optionality to monetize royalties from existing partnerships
- Potential new partnerships/collaborations to provide upfront payments and committed R&D funding



<sup>1</sup>cash, cash equivalents, and marketable securities

## **Differentiated Development of Multifunctional Therapeutics**



1-1.010



## Meaningful Catalysts Expected Throughout 2025 & 2026



1H 2025	2H 2025	2026		
PIPELINE EVENTS				
<ul> <li>Pivotal Phase 3 top-line data readout in 1L GEA for zanidatamab targeted by our partner Jazz in 2Q 2025</li> <li>Potential China approval for zanidatamab in 2L BTC in Q2 2025</li> <li>Initial royalty revenue from Jazz Pharmaceuticals</li> <li>Expected IND submission for ZW220 (NaPi2b) in 1H 2025</li> <li>Potential EU approval for zanidatamab in 2L BTC in Q2 2025</li> </ul>	<ul> <li>Initial royalty revenue from BGNE Pharmaceuticals</li> <li>Expected IND submission for ZW251 (GPC3) in 2H 2025</li> <li>Potential Phase 1 clinical data readouts on ZW171 and ZW191 as soon as 2025</li> <li>Jazz Pharmaceuticals may file a sBLA for zanidatamab in 1L GEA</li> <li>Jazz potential for further development of zanidatamab in neoadjuvant/adjuvant GEA</li> </ul>	<ul> <li>Expected IND submission for ZW209 (DLL3) in 1H 2026</li> <li>Expected IND submission for ZW1528 (IL4R x IL-33) in 2H 2026</li> <li>Jazz to potentially launch expanded market strategy for zanidatamab in GEA in 2026</li> </ul>		
CASH RUNWAY <sup>1</sup> FORECAST INTO 2H 2027 WITH RECEIPT OF CERTAIN ANTICIPATED REGULATORY MILESTONE PAYMENTS				
<sup>1</sup> cash, cash equivalents, and marketable securities Illustrative. Key news flow only. AACR: American Association for Cancer Research; ASCO: American Society of Clinical Oncology; ASCO GI: ASCO Gastrointestinal Cancers Symposium; BLA: biologics license application; EORTC-NCI-AACR: EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics; EMA: European Medicines Agency; ESMO: European Society for Medical Oncology; JSMO: Japanese Society of Medical Oncology; MAA: marketing authorization application; PEGS: Protein Engineering Summit; SABCS: San Antonio Breast Cancer Symposium; SITC: Society for Immunotherapy of Cancer; T-Dxd: trastuzumab deruxtecan; World ADC: World Antibody Drug Conjugates Summit; WCGI: World Congress on Gastrointestinal Cancer.				

## Key Takeaways From ZYME R&D Day



With nomination of ZW209, 5x5 solid tumor portfolio construction is 18 months ahead of schedule with expected initial clinical data disclosures potentially starting in 2025

# r l

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

# gll

ADVANCE portfolio broadly diversified into hematological cancers and AIID in additional to solid tumors with initial IND planned for 2H-2026 for ZW1528 and more in 2027 and beyond



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 <u>ADVANCE</u> portfolios



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





#### **ADVANCE PROGRAM**

# Q&A Session #2

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# zymeworks