Making a Meaningful Difference

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

Investor and Analyst Presentation

MARCH 2024

Nasdaq: ZYME | zymeworks.com
This presentation and the accompanying oral 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 oral commentary include, but are not limited to, statements that relate to Zymeworks’ anticipated cash runway and potential sources of its cash runway; preliminary and unaudited estimates of its cash, cash equivalents, and marketable securities; the timing of anticipated IND filings; Zymeworks’ expectations regarding implementation of its strategic priorities; the anticipated benefits of the collaboration agreement with Jazz and BeiGene, including 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; anticipated preclinical and clinical data presentations and publications; expectations regarding future regulatory filings and approvals and the timing thereof; potential 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; anticipated continued receipt of revenue from existing and future partners; Zymeworks’ preclinical pipeline; anticipated sufficiency of cash resources and other potential sources of cash, including certain anticipated regulatory milestone payments, to fund Zymeworks’ planned operations into 2H 2027; 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 and estimated cash runway 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.sedar.com). 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.

Furthermore, we are in the process of finalizing our financial results for the fourth quarter and fiscal year 2023, and therefore our finalized and audited results and final analysis of those results are not yet available. The preliminary expectations regarding year-end cash, cash equivalents, and marketable securities are the responsibility of management, are subject to management’s review and the actual results could differ from management’s expectations. The actual results are also subject to audit by our independent registered public accounting firm and no assurance is given by our independent registered public accounting firm on such preliminary expectations. You should not draw any conclusions as to any other financial results as of and for the year ended December 31, 2023, based on the foregoing estimates.

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

<table>
<thead>
<tr>
<th>Seeking to address unmet patient needs in HER2+ GI Cancers</th>
<th>5 new INDs planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>zanidatamab (HER2 bispecific antibody)</td>
<td>Focus on Gyn CA, Lung CA, &amp; GI CA</td>
</tr>
<tr>
<td>• Licensed to Jazz and BeiGene</td>
<td>• ZW171 (IND 2024) MSLN x CD3 bispecific antibody</td>
</tr>
<tr>
<td>• BTC 2L: rolling USA regulatory submission underway with breakthrough designation</td>
<td>• ZW191 (IND 2024) FRα TOPO1i ADC</td>
</tr>
<tr>
<td>• GEA 1L: Targeting pivotal Phase 3 top-line data readout in late 2024</td>
<td>• ZW220 (IND 2025) NaPi2b TOPO1i ADC</td>
</tr>
<tr>
<td>• Additional ongoing and planned clinical studies beyond BTC and GEA</td>
<td>• ZW251 (IND 2025) GPC3 TOPO1i ADC</td>
</tr>
<tr>
<td></td>
<td>• Candidate5 TBD (IND 2026) Pre-clinical TriTCE candidate nomination expected in 2H 2024</td>
</tr>
</tbody>
</table>

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 potential near-term approval and launch of zanidatamab. Cash runway forecast into 2H 2027, with receipt of certain anticipated regulatory milestones.

1L: first-line (treatment); 2L: second-line (treatment); ADC: antibody-drug conjugate; BTC: biliary tract cancers; CD3: cluster of differentiation 3 protein complex and T cell co-receptor; FRα: folate receptor alpha; GEA: gastroesophageal adenocarcinoma; GI CA: 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; NaPi2b: sodium-dependent phosphate transporter 2b; NSCLC: non-small cell lung cancer; TOPO1i: topoisomerase-1 inhibitor.
Unique Capabilities in Protein Engineering Provide Opportunity for Differentiated Pipeline of ADCs and Multispecific Antibodies

Select Difficult-to-Treat Cancers and Target

Antibody Drug Conjugates
- Customization:
  - Antibody properties
  - Antibody format
  - Payload
  - DAR

Multispecifics
- Customization:
  - Multiple MOA in a single molecule
  - Synergistic biology
  - Precision targeting through multivalency

Design with Complementary Technology
- TOPO1i Platform
- ZymeLink™ Auristatin Hemiasterlin
- Site Specific Conjugation
- TLR7 ISAC
- ProTECT™
- EFECT™
- T cell engagers

Optionality with Two Foundational Fit-for-Purpose Modalities

Areas of Greatest Unmet Patient Need

5 New INDs expected by 2026

DAR: drug to antibody ratio; ISAC: immune stimulating antibody conjugate; MOA: mechanism of action.
5x5 R&D Strategy: Diversified Portfolio Beyond Zanidatamab with Multiple Opportunities for Success

**ZW171 (MSLN)**
Bispecific T-Cell Engager (2+1) targeting ovarian, NSCLC, and other mesothelin-expressing cancers

**ZW191 (FRα)**
Antibody-Drug Conjugate targeting folate receptor conjugate alpha expressing tumors including ovarian, other gynecological, and non-small cell lung cancers

**ZW220 (NaPi2b)**
Antibody-Drug Conjugate targeting NaPi2b-expressing non-small cell lung cancer and ovarian cancer

**ZW251 (GPC3)**
Antibody-Drug Conjugate targeting GPC3-expressing hepatocellular carcinoma
R&D Focus on Cancers With Highest Unmet Medical Need


IND Candidates (5x5)
Early and Late-Stage Clinical Development

CRC (ZW171)
NSCLC (ZW171, ZW191, ZW220, zanidatamab zovodotin)

Ovary (ZW171, ZW191, ZW220)
Stomach (zanidatamab)
Esophageal (zanidatamab)
Mesothelioma (ZW171)
Liver (ZW251)
Pancreas (ZW171)

## Extensive Expected News Flow over 2024 and 2025

### PIPELINE EVENTS

<table>
<thead>
<tr>
<th>1H 2024</th>
<th>2H 2024</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Expect to complete USA regulatory submission for zanidatamab in 2L BTC</td>
<td>• Pivotal Phase 3 top-line data readout in GEA 1L targeted in late 2024</td>
<td>• Potential USA and China launch for zanidatamab in 2L BTC and initial royalty revenue from partners Jazz and BeiGene</td>
</tr>
<tr>
<td>• Initiation of Phase 3 confirmatory trial for zanidatamab in 1L BTC</td>
<td>• Expected BLA submission in China for zanidatamab in 2L BTC</td>
<td>• Expected IND submission for ZW220 (NaPi2b)</td>
</tr>
<tr>
<td>• Expected IND submission for first 5x5 candidate</td>
<td>• Expected IND submission for second 5x5</td>
<td>• Expected IND submission for ZW251 (GPC3)</td>
</tr>
<tr>
<td></td>
<td>• Nomination of 5\textsuperscript{th} product candidate in 5x5</td>
<td></td>
</tr>
</tbody>
</table>

### 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)

Manuscripts: Overview of ZD06519 (TOPO1i payload)

Illustrative. Key news flow only.

Projected Cash Runway Supports R&D Priorities into 2H 2027

Current Financial Status:

• Cash resources\(^1\) of approx. $456.3M (as of December 31, 2023)

• Includes December 2023 private placement of $50M to EcoR1 Capital

• Anticipated cash runway into 2H 2027, which includes certain anticipated regulatory milestones

Potential sources to extend cash runway into 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

• Potential new partnerships/collaborations to provide upfront payments and committed R&D funding

1. Cash resources consist of cash, cash equivalents, and marketable securities.
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**¹,² **advancing towards the clinic** with **broad investment in ADC technologies to support future programs**

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Platform Design Criteria Draw on Well Validated ADC Technologies

**Commentary**

*The therapeutic window of antibody drug conjugates: A dogma in need of revision*

Raffaele Colombo and Jamie R. Rich

ADC Therapeutics Development, Zymeworks Inc., Vancouver, BC, Canada

*Correspondence: raffaele.colombo@zymeworks.com (R.C), jamie.rich@zymeworks.com (J.R.R)

Despite a prevailing dogma wherein antibody drug conjugates (ADCs) increase the maximum tolerated dose of potent cytotoxin payloads while lowering the minimum effective dose, mounting clinical evidence argues that the tolerated doses of ADCs are not significantly different from those of related small molecules. Nonetheless, when dosed at or near the maximum tolerated dose, certain ADCs demonstrate improved efficacy. Understanding the challenges and opportunities for this class of biotherapeutics will help improve the design of next-generation ADCs.

**Payload**

Novel camptothecin with moderate potency and strong bystander activity

- Acknowledges complex mechanisms driving TOP01i 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
## 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

<table>
<thead>
<tr>
<th>Program</th>
<th>Potential Indication</th>
<th>Target(s)</th>
<th>Payload</th>
<th>DAR (Range)</th>
<th>Preclinical</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Pivotal</th>
<th>Collaboration Partners</th>
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</thead>
<tbody>
<tr>
<td>ZW191</td>
<td>Gynecological cancers, NSCLC, TNBC</td>
<td>FRα</td>
<td>Topoisomerase I Inhibitor (ZD06519)</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>On track for IND filing in 2024</td>
</tr>
<tr>
<td>ZW220</td>
<td>OVCA, NSCLC</td>
<td>NaPi2b</td>
<td>Topoisomerase I Inhibitor (ZD06519)</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>On track for IND filing in 2025</td>
</tr>
<tr>
<td>ZW251</td>
<td>Hepatocellular carcinoma</td>
<td>GPC3</td>
<td>Topoisomerase I Inhibitor (ZD06519)</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>On track for IND filing in 2025</td>
</tr>
<tr>
<td>Zanidatamab zovodotin</td>
<td>NSCLC</td>
<td>HER2</td>
<td>Auristatin (ZD02044)</td>
<td>2</td>
<td>NCT03821233</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>XB002 (ICON-2)</td>
<td>Solid tumors</td>
<td>Tissue Factor</td>
<td>Auristatin (ZD02044)</td>
<td>4</td>
<td>NCT04925284</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Zymeworks Novel Camptothecin Payload Was Selected With ADCs In Mind

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

ADC: antibody-drug conjugate.
ZW191
FRα-targeting ADC

FRα is found in ~75% of high-grade serous ovarian carcinomas\(^1\) and ~70% of lung adenocarcinomas\(^2\)

**Optimized Design\(^3\)**
- 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 FRα expression\(^1\)
- Favorable safety profile in non-human primate toxicology studies\(^3\)
- Opportunity to treat broader range of FRα-expressing cancers

**Next Milestone**
- Expected IND filing in 2024

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

Customized format for enhanced function

Selected for Enhanced Internalization

- ZW191: 10 nM
- mirvetuximab: 10 nM

Designed for Superior Payload Delivery

- Intracellular ZLA Payload vs. FRα Expression
  - ZW191 mAb
  - mirvetuximab

Differentiated by Greater Anti-Tumor Activity

Anti-tumor activity of ZW191 and mirvetuximab soravtansine against ovarian patient derived xenografts (PDXs) expressing moderate and low FRα

- Ovarian PDX FRα H-Score: 110
- Ovarian PDX FRα H-Score: 20

- ZW191, 6 mg/kg
- mirvetuximab soravtansine, 6 mg/kg
ZW191: Novel and Proprietary TOPO1i Payload Well-Tolerated

**ZW191 is well-tolerated in non-human primate (NHP) at 30 mg/kg**

<table>
<thead>
<tr>
<th>Dose mg/kg</th>
<th>Tolerated?</th>
<th>Histopathology; Clinical Chemistry; Hematology</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Yes</td>
<td>Thymus, stomach; AST ↑; ABRETIC↓</td>
</tr>
<tr>
<td>80</td>
<td>No</td>
<td>Thymus, kidney, testis, and brain; AST ↑; BUN ↑; ABRETIC↓; ABLYMP↓</td>
</tr>
</tbody>
</table>

- MTD ≥ 30 mg/kg in a 2-dose non-GLP NHP toxicology study
- Histopathology findings at 30 mg/kg were considered as background/low severity and not adverse
- Clinical chemistry and hematology findings at 30 mg/kg considered mild and/or non-dose responsive
- At 30 mg/kg, clinical observations were limited to fecal abnormalities, with no effect on body weight

**ZW191 has a favorable pharmacokinetic (PK) profile**

- 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

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GMP: good manufacturing practices; MTD: maximum tolerated dose; NHP: non-human primates.
Differentiation is Critical for ZW191 in the Competitive FRα ADC Space for TOPO1i

The right design to target FRα

1. Potential best-in-class antibody
   The ZW191 antibody was selected for enhanced internalization, payload delivery, and tumor penetration.¹

2. Topoisomerase I inhibitor (TOPO1i) payload mechanism
   TOPO1i containing ADCs have proven to be an effective mechanism to treat ovarian cancers.²,³

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.⁵ 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.⁴

5. Strong bystander activity
   Strong bystander activity is beneficial when treating tumors with low and heterogenous expression of FRα.¹

The balance between drug-linker stability and payload potency differentiates ZW191 from other FRα-TOPO1i ADCs

Payload Potency

Drug-Linker Stability


* Denotes use of exatecan payload  
^ Denotes use of Fc-silenced antibody
ZW220
NaPi2b-targeting ADC

NaPi2b is found in ~96% of ovarian serous adenocarcinomas\(^1\) and ~87% of non-small cell lung adenocarcinomas\(^1\)

**Design\(^2\)**
- 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\(^1\)
- Encouraging tolerability in repeat dose non-human primate toxicology studies\(^2\)
- First-in-class ADC potential for NaPi2b-expressing solid tumors

**Next Milestone**
- Expected IND filing in 2025

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ZW220: Potential Utility in Multiple Cancers; On Track for Clinical Studies in H1-2025

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

**Efficient and Rapid Internalization**

- Internalized Mean Fluorescence
- 5 Hours vs 24 Hours
- Comparison of ZW220 mAb, Upifitamab, Lifastuzumab

**Growth Inhibition in Ovarian Cancer and NSCLC Models**

ZW220 DAR 4 cytotoxicity in 3D spheroids

- Representative dose-response cytotoxicity curves for ZW220 DAR 4, relative to untreated, in a panel of NaPi2b+/- tumor cell line spheroids.

**Anti-Tumor Activity in Ovarian Cancer Models**

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

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**Cell line spheroids with NaPi2b Cell expressed:** IGROV-1 (Ovarian) 1,770,000 expressed; HCC-78 (NSCLC) 820,000 expressed; TOV-21G (Ovarian) 350,000 expressed; H441 (NSCLC) 41,000 expressed; EBC-1 (NSCLC) 0 expressed.

1. Hernandez Rojas A et al., Abstract #1533 presented at AACR 2023
ZW220: Novel and Proprietary TOPO1i Payload Well-Tolerated

**ZW220 3-dose non-GLP NHP toxicology study, Q3Wx3**

<table>
<thead>
<tr>
<th>Test article</th>
<th>Dose</th>
<th>Tolerated?</th>
<th>Histopathology; Clinical Chemistry; Hematology</th>
<th>MTD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZW220</td>
<td>30 mg/kg</td>
<td>Yes</td>
<td>None</td>
<td>90 mg/kg</td>
</tr>
<tr>
<td></td>
<td>60 mg/kg</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td></td>
<td>90 mg/kg</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

- 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: Designed to Address Challenges Encountered With Other NaPi2b ADCs

The right design to target NaPi2b

1. Topoisomerase I inhibitor (TOPO1i) payload mechanism
   TOPO1i containing ADCs have proven to be an effective mechanism to treat ovarian cancers.\(^1,2\)

2. **Intermediate drug-antibody-ratio (DAR)**
   An intermediate DAR (~4) is desirable to enable a high protein dose to maximize target engagement, tumor penetration, and drug exposure.\(^4\) Additionally, an intermediate DAR may help to mitigate on-target off-tumor toxicities.

3. **Strong, persistent bystander activity**
   Strong bystander activity is beneficial when treating tumors with low and heterogenous expression of NaPi2b.

4. **Potential best-in-class antibody with strong internalization**
   The ZW220 antibody was selected for optimal internalization.\(^3\)

5. **Moderate antibody-linker stability**
   A ‘designed instability’ approach was taken with ZW220; all approved ADCs feature an element of linker instability.\(^4\)

ZW220 combines a bystander active TOPO1i payload at a DAR of 4 with a potential best-in-class ADC antibody.

\* Denotes strong bystander activity of payload
\^ Denotes weak or transient bystander activity of the payload

ZW251
Glypican 3-targeting ADC

GPC3 is expressed in 76% of hepatocellular carcinomas (HCC)¹

Design²
• 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 expression²
• Noteworthy tolerability in repeat dose non-human primate toxicology studies²
• 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

Next Milestone
• Expected IND in 2025

HCC: hepatocellular carcinoma
ZW251: Potential Utility in Hepatocellular Carcinoma\textsuperscript{1,2}; On Track for Clinical Studies in 2025

ZW251 demonstrates target-mediated uptake and anti-tumor activity

Selected For Strong Binding Over Various Levels Of Expression

Binding of ZW251 mAb and ADC to cancer cell lines across a range of GPC3 expression

Enhanced ADC Internalization and Cytotoxicity

ZW251 internalized in HepG2 cell line

Tumor spheroid cytotoxicity in HCC cell line

Internalization visualized after 24-hour treatment

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

Differentiated Modality Demonstrates Anti-tumor Activity Across A Range of HCC Models

% anti-tumor activity was determined by % tumor growth inhibition (%TGI) calculated as \((1 - \text{Tumor growth inhibition}) \times 100\) at Day 21, or at the closest evaluable time point.

CDX: cell derived xenograft.

Making a Meaningful Difference
ZW251: Novel and Proprietary TOPO1i Payload Well-Tolerated

Three Dose Non-Human Primate (NHP) Toxicology Study

<table>
<thead>
<tr>
<th>Test Article</th>
<th>Doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZW251 DAR 8</td>
<td>10 mg/kg</td>
</tr>
<tr>
<td></td>
<td>30 mg/kg</td>
</tr>
<tr>
<td></td>
<td>60 mg/kg</td>
</tr>
<tr>
<td>ZW251 DAR 4</td>
<td>20 mg/kg</td>
</tr>
<tr>
<td></td>
<td>60 mg/kg</td>
</tr>
<tr>
<td></td>
<td>120 mg/kg</td>
</tr>
</tbody>
</table>

- 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

- 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)

HCC: Limited Treatment Options

- Globally, liver cancer is the sixth most common cancer and third most common cause of death from cancer\(^1\)
- 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

Zanidatamab zovodotin
A Bispecific HER2-targeting ADC

Design\(^1\)
- Novel cross-linking binding designed to enhance internalization of payload and initializes immunogenic cell death (ICD)
- Delivery of novel auristatin payload (ZD02044) covalently linked via a protease cleavable linker in a DAR 2 configuration

Profile
- Differentiated format offers options to overcome potential points of resistance via geometry and cytotoxin; manageable low-grade adverse events; inducer of ICD markers and potential adaptive immune responses, which warrants investigation of its combination with checkpoint inhibitors\(^2,3\)

Next Milestone
- Zanidatamab zovodotin remains ready for a Phase 2 study; however, the initiation of the planned Phase 2 study has been deprioritized, pending more clarity from the evolving clinical landscape.

1. Hamblett, KJ et al., Abstract #3914 presented at AACR 2018; Cancer Res 2018;78(13S); 2. Barnscher Set al., Abstract #2633 presented at AACR 2023; 3. Jhaveri K et al., presented at ESMO 2022; #460MO Annals of Oncology 33(7).
Zanidatamab zovodotin: Summary of Key Potential Differentiators

Pre-clinical data demonstrates potential synergism to combine with immunotherapy. Safety profile from Phase 1 data supports focus in NSCLC population with a recommended dose of 2.5mg/kg Q3W.

Enhanced Internalization of Payload, with ICD

Biparatopic binding elicits internalization, auristatin-mediated cytotoxicity and strong hallmarks of immunogenic cell death\(^1\,2\)

Hallmarks of ICD in HER2 expressing tumor cells

- Extracellular ATP
- Calreticulin
- HMGB1

Stronger inducer across hallmarks when compared to trastuzumab based ADCs with DXd or MMAE payloads

Antitumor Activity Across Solid Tumors Including NSCLC

Confirmed ORR of 30%

In 2.5mg/kg Q3W cohort (N=30), median duration of response was 6.8 months with a range of 1.4 – 19.8 months\(^4\)

Differentiated Safety Profile

In 67 patients, low grade, manageable adverse events with no ILD or pneumonitis reported\(^3\)

- MTD not reached
- The PK of ADC and total antibody was comparable and appeared to be linear among the three dose regimens examined

Safety: 2.5mg/kg Q3W cohort, N=31\(^4\)

- Gr≥3 TRAEs 16%
- Any grade keratitis of 45%; all cases ↓ to grade 1 or resolved
- Alopecia & IRR: any grade = 16%
- Diarrhea any grade = 29% (No Gr≥3)

Zanidatamab zovodotin is an investigational product that has not received FDA (or any regulatory authority) approval and has not been demonstrated safe or effective for any use.

HMGB1: high mobility group box 1 protein; ICD: immunogenic cell death; ILD: Interstitial lung disease; IRR: immune related reaction; MMAE: Monomethyl auristatin E; Q3W: every three weeks; TRAE: treatment-related adverse event.

XB002 (ICON-2)
A Novel Tissue Factor Targeting ADC

Design
- Novel antibody that recognizes a Tissue Factor epitope that does not interfere with Factor VII binding
- Delivery of Zymeworks novel auristatin payload (ZD02044) covalently linked via a protease cleavable linker in a DAR 3.8 configuration

Profile
- Differentiated ADC versus Tisotumab Vedotin on tolerability, exposure and combinability

Status
- Phase 1 studies in advanced solid tumors (JEWEL-101)
Multispecific Antibody Therapeutic (MSAT) Program

Driving The Evolution of MSATs
## Differentiated Development of Multi-Specific Antibody Therapeutics

Versatile multi-specific antibody therapeutics enhancing potency and precision with proven track record and robust clinical pipeline

<table>
<thead>
<tr>
<th>Program</th>
<th>Potential Indication</th>
<th>Target(s)</th>
<th>Preclinical</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Pivotal</th>
<th>Collaboration Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Zanidatamab</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Bispecific</td>
<td>BTC</td>
<td>HER2 x HER2</td>
<td>HERIZON-BTC-01</td>
<td></td>
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<td>Jazz Pharmaceuticals</td>
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<td></td>
<td>GEA</td>
<td>HER2 x HER2</td>
<td>HERIZON-GEA-01</td>
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<td>BeiGene</td>
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<tr>
<td></td>
<td>BC and other solid tumors</td>
<td>HER2 x HER2</td>
<td>8+ ongoing Phase 1 and Phase 2 trials (new)</td>
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<tr>
<td><strong>ZW171</strong></td>
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</tr>
<tr>
<td>Bispecific T-Cell Engager</td>
<td>Pancreatic, OVCA, CRC</td>
<td>MSLN x CD3 (2+1)</td>
<td>Expected IND filing in 2024</td>
<td></td>
<td></td>
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<tr>
<td><strong>TriTCE Co-Stimulatory</strong></td>
<td>Under active evaluation</td>
<td>CLDN18.2 x CD3 x CD28</td>
<td>Pilot toxicology studies</td>
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<tr>
<td>Trispecific T cell engager</td>
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<tr>
<td><strong>TriTCE Checkpoint Inhibition</strong></td>
<td>Under active evaluation</td>
<td>TAA x PD-L1 x CD3</td>
<td>Pilot toxicology studies</td>
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<td>Trispecific T cell engager</td>
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<td><strong>Selected Partnered Programs</strong></td>
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<tr>
<td>Bispecific</td>
<td>Castration-Resistant</td>
<td>CD3 x KLK2</td>
<td>Azymetric™</td>
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<td></td>
<td>Johnson &amp; Johnson</td>
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<tr>
<td>Prostate Cancer</td>
<td></td>
<td></td>
<td>EFECT™</td>
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</tbody>
</table>


**Making a Meaningful Difference**
**Zanidatamab: $2B+ Peak Sales Potential**

### Expect to enter market first in BTC (pending regulatory approval)\(^1\)
- Rolling BLA submission for accelerated approval in 2L BTC
- Confirmatory Phase 3 trial initiated in 1L metastatic BTC

### 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\(^1\)
- Opportunity to explore potential in neoadjuvant populations\(^1\)

### Expanded opportunity across lines of Breast Cancer (BC)\(^1\)
- Early lines of therapy (neoadjuvant)
- Post T-DXd
- Novel combinations\(^1\)

#### Ongoing trials in early breast cancer:
- I-SPY2 Trial\(^4\)
- MD Anderson collaboration

### Broad potential beyond BTC, GEA, and BC in multiple HER2-expressing indications\(^6\)
- Colorectal
- NSCLC
- Ovarian
- Endometrial
- Pancreatic
- Bladder
- Salivary Gland
- Ampullary
- And other HER2-expressing solid tumors

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*Adapted from Jazz Pharmaceuticals’ Guidance*

1. Pending regulatory approvals, 2. Incidence sources: Kantar reports, ToGA surveillance report; SEER, cancer.gov; ClearView Analysis; GLOBOCAN, Data on file, 3. Major markets, U.K, France, Germany, Spain, Italy, 4. NCT01042379; 5. Incidence source estimates derived from multiple sources: Decision Resources Group, Kantar Health, Jazz Market Research, data on file; 6. Funda Merc-Bernstam et al., Zanidatamab, a novel bispecific antibody, for the treatment of locally advanced or metastatic HER2-expressing or HER2-amplified cancers: a phase 1, dose-escalation and expansion study, The Lancet Oncology, Volume 23, Issue 12, 2022, Pages 1558-1570, ISSN 1470-2045, https://doi.org/10.1016/S1470-2045(22)00621-0.

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**Making a Meaningful Difference**
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)\(^1\)
- HER2-receptor cross-linking, enhanced receptor clustering, internalization, and receptor downregulation\(^1\)
- Inhibition of cellular proliferation
- Fc-mediated cytotoxicity: ADCC, ADCP, CDC\(^1\)
- 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\(^1\)

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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), 12.9 months mDoR

**Combination Activity in First-Line GEA studies**
- 79% ORR with a mDOR of 20.4 months and 84% 18-month OS rate
- 75.8% ORR with mDOR 22.8 months and mPFS 16.7 months

**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

**HERIZON-GEA-01**
A Global Pivotal Study in First-Line HER2-Positive GEA
- Supported by promising Phase 2 clinical data presented at ASCO GI 2023 and Phase 1b/2 data at ESMO 2023

**Upcoming Milestones**
- Rolling USA regulatory submission underway in 2L BTC with breakthrough designation
- Confirmatory Phase 3 trial initiated in 1L metastatic BTC
- Topline data for the Phase 3 HERIZON-GEA-01 trial expected in late 2024

**Collaboration Partners:**
- Jazz Pharmaceuticals
- BeiGene

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mDoR: median duration of response; ORR: overall response rate; OS: overall survival; mPFS: median progression-free survival.

Zanidatamab: Licensing Agreement with Jazz

### Licensing Agreement Terms¹

<table>
<thead>
<tr>
<th>Counterparty</th>
<th>Jazz Pharmaceuticals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upfront Payments</td>
<td>$375M received in 4Q22</td>
</tr>
<tr>
<td>Regulatory Milestones</td>
<td>Up to $525M</td>
</tr>
<tr>
<td>Commercial Milestones</td>
<td>Up to $862.5M</td>
</tr>
<tr>
<td>Royalties</td>
<td>Tiered royalties of 10 to 20% of net sales</td>
</tr>
<tr>
<td>Territories</td>
<td>USA, EU, Japan and all other territories except those in APAC covered by BeiGene agreement</td>
</tr>
<tr>
<td>Future R&amp;D Spend</td>
<td>Jazz to fund 100% of costs of future zanidatamab studies</td>
</tr>
</tbody>
</table>

### Key Benefits to Zanidatamab Licensing Agreement

- **Meaningful improvement to financial position and reduction in future expenditures** allows focus on growth of exciting early-stage pipeline while zanidatamab advances to commercialization
  - Accelerate and expand R&D programs (5x5 and ADVANCE) while maintaining anticipated cash runway into 2H 2027 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

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¹ All dollar values in US Dollars.
Zanidatamab: Licensing Agreement with BeiGene for Asia Pacific

<table>
<thead>
<tr>
<th>Licensing Agreement Terms¹</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Counterparty</strong></td>
<td>BeiGene</td>
</tr>
<tr>
<td><strong>Upfront Payments</strong></td>
<td>$40M</td>
</tr>
<tr>
<td><strong>Development and Commercial Milestones</strong></td>
<td>Up to $195M</td>
</tr>
<tr>
<td><strong>Royalties</strong></td>
<td>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)</td>
</tr>
<tr>
<td><strong>Territories</strong></td>
<td>Asia-Pacific region (excluding Japan and India)*</td>
</tr>
<tr>
<td><strong>Co-development Funding</strong></td>
<td>Currently for BTC and GEA global development</td>
</tr>
</tbody>
</table>

### Additional Details
- Received approx. $40M upfront payment in 2018 and approx. $20M in milestones to date
- 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
- Co-development funding agreed for any global studies

¹ All dollar values in US Dollars.

* Zymeworks BC granted BeiGene a royalty-bearing exclusive license for the research, development and commercialization of zanidatamab zovodotin 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 ICR)

**Secondary End Points:** Proportion of patients with DOR ≥16 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.

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 chemotherapy3, 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 BICR)

**Secondary End Points:** ORR, DOR, Safety, HRQoL

**Additional Details:** Anticipate topline readout in H2 2024

BICR: blinded independent central review; DCR: disease control rate; HRQoL: health-related quality of life; ICR: independent central review; IHC: immunohistochemistry; mPFS: median progression-free survival; ORR: overall response rate; RECIST: response evaluation criteria in solid tumors; SOC: standard of care.
1. Response assessments until progression (per ICR or BICR) or withdrawal of consent.
2. Harding et al., Lancet Oncol. 2023 24(7) 772-782; 3. CAPOX (capecitabine and oxaliplatin) or FP (5-fluorouracil and cisplatin).
# Zanidatamab: Epidemiology of Biliary Tract Cancer

Biliary Tract Cancers (BTC) are molecularly diverse tumors which include gallbladder cancer (GBC), intrahepatic cholangiocarcinoma (ICC), and extrahepatic cholangiocarcinoma (ECC).\(^1\) Gall bladder cancer is the more prevalent diagnoses among BTC cases.\(^2\)

### Epidemiology (World)

**Incidence varies globally:**
- Globally, it was estimated ~210,878 new cases of BTC in 2017, increasing to 219,420 in 2018.\(^3\)
- 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 \(^4,5\)
- Chile had the highest incidence, followed by Japan and South Korea (10.83, 8.88, and 8.55/100,000, respectively)\(^6\)

### 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\(^8\) which is estimated to be ~15,000 patients per year

### Progression

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

### Cases by stage at diagnosis\(^9,10\)

- ~25% Resectable
- 60–70% Advanced
- Other

### Incidence of Overexpressed Her2

- 19% of GBC
- 17% of ECC
- 5% of ICC

---

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)1

**Advanced / Metastatic Biliary Tract Cancers**

**First-line treatment options**

Guideline option from the ABC-02 trial3

gemcitabine + cisplatin

ORR = 26%, mPFS = 8.4 months,
mOS = 11.7 months

Guideline option from the TOPAZ-1 trial4,5

cisplatin + gemcitabine + durvalumab

ORR = 26.7%IA, mPFS = 7.2 months,
mOS = 12.9 months

Recent option from the KN-966 trial6

cisplatin + gemcitabine + pembrolizumab

ORR = 29%BICR, mPFS = 6.5 months,
mOS = 12.7 months

**Progression in Metastatic Biliary Tract Cancers**

**Second-line treatment options**

Guideline option from the ABC-06 trial7

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 months8

IDH1 mutation: mPFS = 2.7 months, mOS = 10.3 months9

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

trastuzumab + FOLFOX mPFS = 5.1 months, mOS = 10.7 months10

TDXd (HERB trial) mPFS = 5.1 months, mOS = 7.1 months11

trastuzumab + pertuzumab (MyPathway) mPFS = 4.0, mOS = 10.9 months12

---

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%\(^1\)
- There is a wide geographic variation incidence: 15- to 20-fold difference between high- and low-incidence regions\(^4\)
- Most patients present at a late stage of disease\(^1,2,3\)

### Gastric Cancer\(^1,2\)

Globally, ~1.1 million patients diagnosed with an estimated increase of 62% to 1.77 million by 2040
- Majority of gastric cancers are adenocarcinomas (~95%)\(^5\)

### Esophageal Cancer\(^1,3\)

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)

### HER2-Positivity

HER2+ in GEA ranges 7-34%\(^6,7\)
- Men > Women
- Moderate > Poor differentiated
- GEJ (32.2%) > Gastric (21.4%)
- Intestinal > Diffuse subtype

Prognostic significance of HER2 is unclear,\(^8\) and influenced by:
- Intra-tumoral heterogeneity
- Treatment line
- Clonal evolution\(^8,9,10\)

#### Incidence rates\(^11\)

<table>
<thead>
<tr>
<th>Region</th>
<th>USA</th>
<th>Europe</th>
<th>Japan</th>
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</thead>
<tbody>
<tr>
<td>Gastric</td>
<td>1.2%</td>
<td>3.1%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Esophageals</td>
<td>0.8%</td>
<td>1.2%</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

Zanidatamab: Targeted Treatment Options For Patients with HER2+ GEA

Summary: First-line treatment guidelines for patients with HER2+ Gastric and GEJ adenocarcinoma

Advanced / Metastatic HER2+ Gastric or GEJ Adenocarcinoma

Guideline option based on the ToGA trial

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

NCT01041404

Advanced / Metastatic HER2+ Gastric or GEJ Adenocarcinoma

Guideline option for patients based on Keynote 811 trial (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 = 20.5 vs 15.6 months

ITT OS was not significant. 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

CPS: combined positive score; GEJ: gastroesophageal junction; HER2+: epidermal growth factor receptor 2 positive; ITT: intention-to-treat population; mOS: median overall survival.

## Zanidatamab: Regulatory Designations and Exclusivity

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

1. 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%)\(^2\), with moderate to strong expression levels across mesothelioma (~56%)\(^2\) and NSCLC (~36%)\(^2\)

**Design\(^1\)**
- 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\(^1\)**
- Enhanced anti-tumor activity and safety profile in preclinical models supports opportunity to overcome clinical limitations of prior MSLN-directed therapies

**Next Milestone**
- Expected IND filing in 2024

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Important Considerations in Engineering and Optimizing T Cell Engagers

Anti-CD3 paratope
- Affinity
- Epitope
- Format

e.g. ZW171

Anti-TAA paratope
- Affinity
- Epitope
- Valency
- Format

T cell engager antibody design is critical for a widened therapeutic index and optimal T cell synapse formation
Unique Azymetric™ Platform Underpinned by Protein Engineering Core Competency Enable Parallel Screening of Multiple Parameters

Paratope screening and optimization, \textit{in silico} affinity engineering

Generate panel of extensively engineered antibodies: valency, geometry and affinity

\textit{In vitro} and \textit{in vivo} biophysical and functional characterization of multispecific antibodies

Single lead optimized to:
- Target TAA over-expressing cells
- Improve T cell responses
- Maximize therapeutic index
- Modulate cytokine release

- Core competency of protein engineering harnessed to engineer and optimize multiple parameters \textit{in silico}
- Flexibility of Azymetric™ platform enabled extensive screening of antibodies based on valency, geometry, and affinity
Mesothelin (MSLN):

- Highly expressed in multiple tumor types including Ovarian, Lung, Pancreatic and Colorectal cancers\(^1\)
- Clinically amenable to T-cell mediated therapy (e.g. Gavo-cel\(^2\)) but limited success with other systemic therapy (e.g. ADCs\(^3-5\), immune toxins\(^6\), prior TCEs\(^7,8\))

Designed to overcome limitations of prior targeted therapies

- Avidity dependent MSLN binding enable selective binding and cytotoxicity of high/moderate MSLN expressing cancer cells and spares normal tissue\(^9\)
- Novel CD3 paratope employed to limit cytokine release while supporting effective tumor cell killing\(^9\)
- Format and paratope affinities empirically selected for optimal anti-tumor activity \textit{in vivo}\(^9\)

ZW171: Key Design Considerations; On Track for Clinical Studies in 2024

**Engineered with 2+1 Format**
Facilitates Avidity-Driven Binding

**Tumor Cell Cytotoxicity in Mid-to-High Expressing MSLN Models**

<table>
<thead>
<tr>
<th>MSLN&lt;sup&gt;high&lt;/sup&gt;</th>
<th>MSLN&lt;sup&gt;mid&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Tumor Cell Survival</td>
<td>% Tumor Cell Survival</td>
</tr>
<tr>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>0</td>
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</tbody>
</table>

H292       HCT116

**CD3 On-cell Binding**

- ZW171
- Negative control (HAxCD3)

**Novel CD3 Paratope with Enhanced Safety**

Proprietary CD3 engager has low affinity CD3 binding and cytokine release

**Cytokine Release**

- ZW anti-CD3<sub>1</sub>
- Gen 1 anti-CD3 (high affinity)
- Gen 2 anti-CD3 (low affinity)

**Differentiated by Greater Anti-Tumor Activity**

in MSLN-Expressing Tumor Models

- Pilot NHP toxicology data shows ZW171 is well-tolerated up to 30 mg/kg

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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.

bsAb: bispecific antibody; gen: generation.
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.

- 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 TAA-dependent anti-tumor activity compared to a bispecific TCE, and transferability across TAA targets.

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

CD28: cluster of differentiation 28 protein complex and T cell co-receptor.
TriTCE Co-Stim Mediates Enhanced *in vitro* and *in vivo* Anti-tumor Activity Compared to Bispecific TCE and Clinical Benchmark

**TriTCE Co-Stim mediates enhanced *in vitro* cytotoxicity and CD28-mediated cytokine activity**

**TriTCE Co-Stim mediates superior *in vivo* anti-tumor activity and enhanced intertumoral T cell expansion compared to bispecific clinical benchmark**

**TriTCE Co-Stim enhances T-cell proliferation and survival**

**TriTCE Co-Stim is well tolerated in a humanized mouse model of CRS**

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

<table>
<thead>
<tr>
<th>Co-stimulatory (CD28) TCE Strategies</th>
<th>Zymeworks’ Advantage and Limitations of Alternative Strategies</th>
</tr>
</thead>
</table>
| Zymeworks TriTCE Co-stim<sup>1,2</sup> | ✓ Zymeworks TriTCE Co-Stim provides **balanced CD3 and CD28 activation** to prevent overactivation of T cells<sup>1,2</sup>  
✓ **No CD28 binding in absence of CD3 engagement**, potentially low risks of CD28-mediated immune related adverse events (irAEs) and **demonstrated safety** in in vitro and in vivo CRS models<sup>1,2</sup>  
✓ Platform optimized for **TAA-dependent activity** including **low T cell binding and no T cell activation in periphery**<sup>1,2</sup> |
| CD28xTAA Bispecific (e.g. Regeneron, Xencor) | ❌ Optimized for strong CD28 agonism, potentially difficult to optimize by dose adjustment<sup>3,4</sup>  
❖ Dependent on presence of signal 1 primed T-cells in TME<sup>3,4</sup>  
❖ Potential for severe irAEs in combination with anti-PD-1, similar to CPI toxicities<sup>5,6,7,8,9</sup> |
| CD3xTAA + CD28xTAA Bispecific Combinations (e.g. Regeneron, Janssen, Roche) | ❌ Increased development and challenging dose optimization requirements for two molecules<sup>10</sup>  
❖ Potential for CD28 bispecific irAEs<sup>6</sup>  
❖ Challenging TAA pairs or non-overlapping epitope targets requirements<sup>3</sup> |
| CD28xCD3xTAA Trispecific (Sanofi) | ❌ High affinity CD3 and CD28 paratopes, activation of peripheral T cells<sup>11,12</sup>  
❖ T cell binding and TMDD observed in the periphery<sup>11,12</sup>  
❖ CD28 paratope based on CD28 super-agonist, potentially limiting application<sup>11,12</sup> |

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 tumor-dependent 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

**Next Milestones**
- Pilot toxicology studies and PK analyses with lead CLDN18.2 TriTCE Co-stim
- Expand utility to additional tumor targets
Expansion of R&D Strategy Beyond "5x5"

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
ADVANCE Portfolio Framework

Advancing design of ADCs and Multi-specifics 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

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

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

**Additional IO**
- Cytokine Engineering
- 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

5x5 portfolio provides diversity and multiple opportunities for success with 5 new IND's expected 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. Combinable proprietary technologies include: Azymetric™; EFFECT™; ProTECT™; ADC Platform includes cysteine insertion technology and novel payloads.
Milestone Opportunities in 2024 & 2025

Cash resources as of December 31, 2023 $456.3M*

Current cash runway projected to support development goals into the second half of 2027 and potentially beyond

Potential to nominate 2 candidates every year from in-house drug discovery platform

Several opportunities for business development with global rights for novel compounds

Multiple value generating opportunities expected in 2024 and 2025, with 5 IND submissions expected by 2026

• Top-line data from HERIZON-GEA-01 targeted for late 2024
• Potential U.S. and China approval for zanidatamab in 2L BTC during or before 2025

*Includes cash, cash equivalents and marketable securities.
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