# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

#### FORM 8-K

#### CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of report (Date of earliest event reported): August 9, 2023

# ZENTALIS PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 001-39263 (Commission File Number) 82-3607803 (I.R.S. Employer Identification No.)

1359 Broadway, Suite 801 New York, New York 10018 (Address of principal executive offices) (Zip Code)

(212) 433-3791 Registrant's telephone number, include area code

N/A

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.001 par value per share	ZNTL	The Nasdaq Global Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company  $\Box$ 

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of
the Exchange Act. □

#### Item 7.01 Regulation FD Disclosure.

Beginning on August 9, 2023, spokespersons of Zentalis Pharmaceuticals, Inc. (the "Company") plan to present the information in the Corporate Presentation furnished as Exhibit 99.1 to this Current Report on Form 8-K (this "Current Report") and incorporated herein by reference at conferences and in meetings with investors and analysts.

The information contained in Item 7.01 of this Current Report (including Exhibit 99.1 attached hereto) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof, except as expressly provided by specific reference in such a filing.

#### Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

The following Exhibit 99.1 relating to Item 7.01 shall be deemed to be furnished, and not filed:

ExhibitNo.	Description
<u>99.1</u>	Corporate Presentation, dated August 2023.
104	Cover Page Interactive Data File (embedded within the inline XBRL document)

#### SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ZENTALIS PHARMACEUTICALS, INC.

Date: August 9, 2023 By: /s/ Melissa Epperly

Melissa Epperly Chief Financial Officer







# **Corporate Presentation**

August 2023

Nasdaq: ZNTL

#### **Forward Looking Statement and Disclaimer**

Zentalis Pharmaceuticals, Inc. ("we," "us," "our," "Zentalis" or the "Company") cautions that this presentation (including oral commentary that accompanies this presentation) contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. All statements contained in this presentation that do not relate to matters of historical fact should be considered forward-looking statements, including without limitation statements regarding potential for our product candidates to be first-in-class and/or best-in-class; potential for accelerated approval paths; potential for our product candidates to be developed as monotherapies and in combination; potential for azenosertib (ZP4-2) to address large unmet need across, potential benefits of intermittent of control to a product candidates, uncluding azenosertib program timelines and potential benefits of dose optimization, and the anticipated timing of providing updates on azenosertib program timelines and potential benefits for our product candidates and their product candidates and their membrane patient population; potential for combinations including our product candidates and their membrane patient population; potential for combinations including updates and the potential benefits thereof; the target profiles and potential benefits of our product candidates and their membrane patient populating of IND-realishing studies, enrollment, initiation of clinical traits and data ananouncements; the material patient populating of IND-realishing of IND

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and other data about our industry. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such data and estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk. Neither we nor our affiliates, advisors or representatives makes any representation as to the accuracy or completeness of that data or undertake to update such data after the date of this presentation.

ZENTALIS\* and its associated logos are trademarks of Zentalis and/or its affiliates. All other trademarks, trade names and service marks appearing in this presentation are the property of their respective owners. All website addresses given in this presentation are for information only and are not intended to be an active link or to incorporate any website information into this document.

Zentalis' product candidates are investigational drugs and have not yet been approved by the U.S. Food and Drug Administration or any other regulatory authority.



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#### We Are a Clinical-Stage Oncology Company Focused on Difficult-to-Treat Cancers



#### Azenosertib: First-in-Class WEE1i Candidate with Broad Franchise Potential



- Best-in-class safety and tolerability to date supports use in earlier lines and maintenance settings
- Demonstrated synergistic activity with chemotherapy and molecularly targeted agents
- Enriched activity in tumors with high genomic instability including Cyclin E1+ and HRD+ cancers
- 8 trials; large indications; 400+ patients dosed



- Direct registrational path with multiple shots on goal across monotherapy and chemotherapy combination
- Potential to cover 88% of ovarian cancer across multiple lines
- Ovarian + USC treatable population of ~58K patients / year
- Potential to expand to broad set of tumors as monotherapy or in combination, addressing ~140K per year
- · Global commercial rights
- IP U.S. composition of matter 2039



#### Highly Selective BCL-2 Inhibitor

- · Multiple indications; Best-in-class potential in heme malignancies
- 100+ patients dosed across 3 ongoing studies
- Positioned to potentially demonstrate monotherapy activity in AL amyloidosis
- Attractive commercial opportunity as potential first registered drug in AL amyloidosis



#### **Promising Preclinical Programs**

· Discovering assets leveraging distinctive chemistry expertise



#### Positioned to Execute and Deliver

- · Deep oncology experience
- · Veteran scientific, clinical advisors
- Partnerships with Pfizer, GSK
- · Cash runway into 2026



## Pipeline Addresses Difficult to Treat Cancers with Large Commercial Opportunities



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# **Azenosertib**

WEE1 Inhibitor with Potential to Address Large Unmet Need Across Array of Cancers

## Azenosertib Monotherapy Dose Optimization Supports Advancement into Multiple **Difficult-to-Treat Tumor Types**



37% Objective Response Rate with durable responses using intermittent dosing in ovarian and USC patients



Monotherapy RP2D established: 400 mg 5:2



Doubled steady state drug exposure compared to continuous dosing



Maintained safety and improves tolerability compared to continuous dosing



No treatment-related discontinuations in patients who were administered intermittent dosing

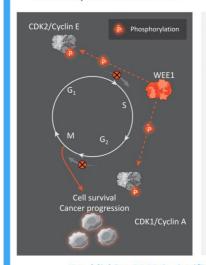
Three ongoing Phase 2 monotherapy trials have the potential to support rapid paths to registration in ovarian cancer and USC



Zentalis® Abbreviations: RP2D: recommended phase 2 dose; 5:2 refers to administration sc

#### Azenosertib Targets WEE1, a Critical Protein for Cancer Cell Survival

WEE1 activity in untreated cancer cell

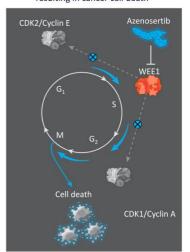


 WEE1 phosphorylates CDK/Cyclin complexes to engage cell cycle checkpoints, allowing DNA repair to occur

- · Azenosertib inhibits WEE1:
  - Leads to inactivation of CDK 1 and 2
  - Removes 2 cell cycle checkpoints: G1/S and G2/M
  - Cell cycle progresses without sufficient DNA repair
  - Cancer cells accumulate DNA damage, resulting in apoptosis and mitotic catastrophe

Azenosertib's MOA and early monotherapy clinical activity made dose optimization critical

**Azenosertib** blocks WEE1 resulting in cancer cell death



Establishing RP2D is significant milestone in path to drugging this high-potential oncology target



Luserna di Rora, et al. 2020. J Hem Onc. 13:126. Elbaek et al. 2022. Cell Reports. 38:110261. Abbreviation: MOA, mechanism of action

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# Monotherapy Dose and Biomarker Enrichment Is Foundational To Our Clinical Strategy

# Tumors with High Genomic Instability are Sensitive to Azenosertib

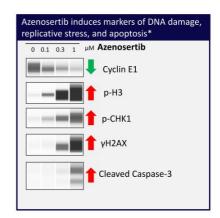
High genomic instability can be caused by:

#### Cyclin E1+ Tumors

- Cyclin E1+ drives accelerated entry into S-phase through its partnership with CDK2
- Replication machinery is overloaded, resulting in genomic instability

Homologous Recombination Repair Defective (HRD+) Tumors

 Results in genomic instability through tumors inability to repair double stranded DNA breaks.





\*OVCAR3 Cyclin E1 positive cells, 16-hour treatment

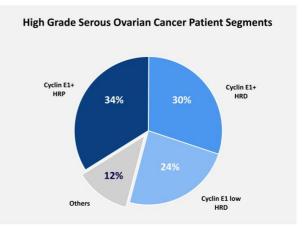
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## **Potential to Transform Treatment Paradigm for Patients and Capture Significant Market Share in Ovarian Cancer**

#### **Azenosertib Monotherapy Potentially Addresses 88%** Of High Grade Serous Ovarian Cancer

- · Ongoing clinical programs address Cyclin E1+ and HRD+ patient populations
  - · Opportunity is much larger than recently approved therapies
- Data support potential role for azenosertib at every stage of metastatic therapy:
  - Platinum sensitive: combination with chemotherapy
  - Platinum resistant: monotherapy and combination with chemotherapy

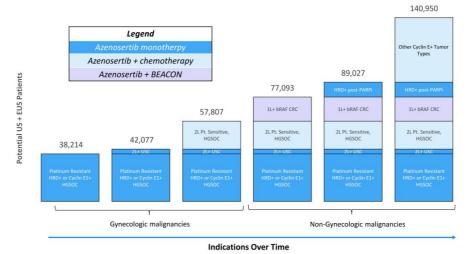
#### Potential to transform standard of care



**HRD**: Homologous recombination deficient **HRP**: Homologous recombination proficient



# Addressable Patient Population More than Doubles as Franchise Expands to Non-Gynecological Malignancies





surce: Used 'drug-treatable' estimates from DRG Clarivate for all Ovarian, USC, CRC, Breast, Prostate and Pancreatic. For 'Other Cyclin-E1 driven solid tumors' used incidence reported by SEER and ECIS.

refin E1 prevailnce in platform sensitive ovarian cancer deviewed from Reterior, et al. CORE1 and Block O-amplification in high-gade serous ovarian cancer is associated with poor clinical outcomes, Gynecology Oroclogy, Volume 157, Issue 2, 203

behaviorable. MSA - CIC (DAPF mittant Colored Lancer; HIPO) - Hemologous Recombinant Repair deficiency, HISO Critiq for deservous Ovarian Cancer; Secrod Line

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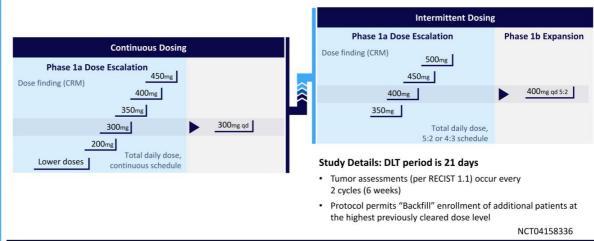
Secretary of the Colored Color

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# **Azenosertib**

Azenosertib Intermittent Monotherapy Dose Substantially Improves Antitumor Activity and Tolerability

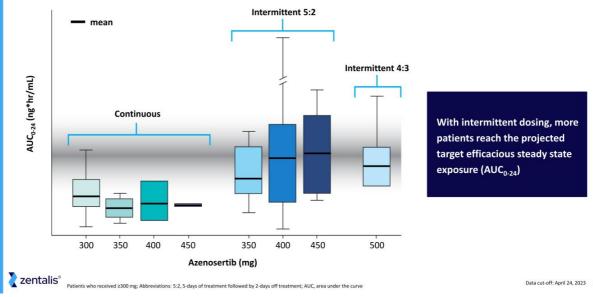
## Zentalis 001 Study Enabled Rapid and Efficient Approach to Dose Optimization



Primary objectives: Safety, PK (Steady State Exposure (AUC<sub>0-24</sub>) & Concentration Maximum (C<sub>max</sub>))

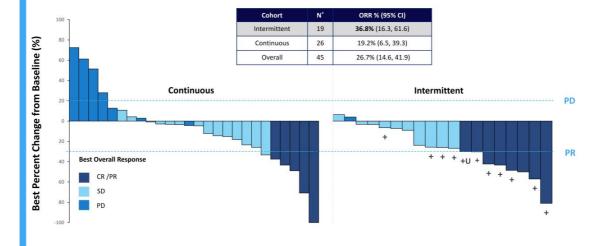
Abbreviations: CRM, continual reassessment method; qd, once daily; 5:2, 5-days of treatment followed by 2-days off treatment;
4:3, 4-days of treatment followed by 3-days off treatment; DLT, dose limiting toxicity; RECIST, response evaluation criteria in solid tumors; PK, pharmacokinetics; AUC, area under the curve

# Intermittent Dosing Resulted In A Significant Increase In Steady State Exposure



Data cut-off: April 24, 2023 13

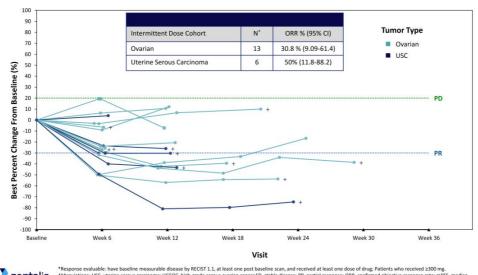
## Azenosertib Intermittent Dosing Schedule Doubles Objective Response Rate In **Ovarian/USC Populations**



\*Response evaluable: have baseline measurable disease by RECIST 1.1, at least one post baseline scan, and received at least one dose of drug Patients who received 2300 mg. Abbreviations: USC, uterine serous carcinoma; CR, complete response; PR, partial response; SN, tables disease; PD, progressive disease; ORA, objective response rate; CL, confidence interval: + 2 relation in therapy at the time of data cut-off

Data cut-off: June 2, 2023 14

## Azenosertib Monotherapy Intermittent Dosing: 89% of Ovarian and USC Patients Had Target Lesion Reductions from their Baseline Scans



- 12/19 (63%) patients remain on therapy
- · Median follow up of 4.4 months
- mPFS of 5.68 months (2.79, NR)
- 10/13 (77%) of ovarian cancer patients had received a prior PARP inhibitor



\*Response evaluable: have baseline measurable disease by RECIST 1.1, at least one post baseline scan, and received at least one dose of drug; Patients who received \$300 mg.

Abbreviations: USC, uterine serous carcinoma; HGSOC, high-grade serous ovarian cancer SD, stable disease; PR, partial response; ORR, confirmed objective response rate; mPFS, median progression free survival; complete response; NR, Not reached, +: Patients remain on therapy at the time of data cut-off

Data cut-off: June 2, 2023 15

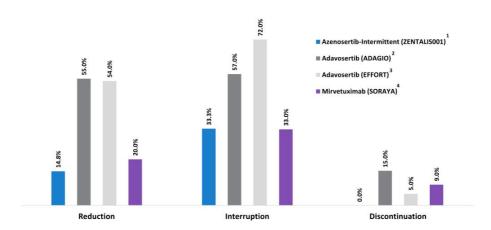
# **Intermittent Dosing Maintains Safety And Tolerability**

		nuous -67)		nittent =27)	Total* (n=94)		
Treatment Related AEs, N (%)	All Grade	Grade 3/4	All Grade	Grade 3/4	All Grade	Grade 3/4	
Gastrointestinal							
Nausea	46 (68.7)	2 (3.0)	9 (33.3)	-	55 (58.5)	2 (2.1)	
Diarrhea	31 (46.3)	4 (6.0)	11 (40.7)	3 (11.1)	42 (44.7)	7 (7.4)	
Vomiting	28 (41.8)	-	3 (11.1)	-	31 (33.0)	-	
Decreased appetite	20 (29.9)	1 (1.5)	4 (14.8)	1 (3.7)	24 (25.5)	2 ( 2.1)	
Dehydration	6 (9.0)	-	3 (11.1)	-	9 (9.6)	-	
Fatigue	30 (44.8)	8 (11.9)	11 (40.7)	2 (7.4)	41 (43.6)	10 (10.6)	
Hematologic							
Anemia	6 (9.0)	2 (3.0)	6 (22.2)	3 (11.1)	12 (12.8)	5 (5.3)	
Thrombocytopenia	4 (6.0)	3 (4.5)	2 (7.4)	-	6 (6.4)	3 (3.2)	
Neutropenia**	1 (1.5)	1 (1.5)	4 (14.8)	3 (11.1)	5 (5.3)	4 (4.3)	



\*Safety Evaluable Population: Received at least one dose of drug;
\*\*No incidence of febrile neutropenia in either dosing group
Continuous 300, 350, 400; Intermittent 350 5:2 and 400 5:2
Treatment Related AEs > 10% and treatment related AEs of interest: All Tumor Types
Abbreviations: AE, adverse event

# **Azenosertib: Improved Tolerability Compared To Other Agents**





1. ZENTALS 001: data on file
2. (ADAGIO Phase 2b Study) Liu et. al. Presented at the Society of Gynecologic Oncology Annual Meeting, March 23–28, 2023
3. (EFFORT Phase 2 Study) Westin et. al. DOI: 10.1200/JCD.2021.39.15\_suppl.5505 Journal of Clinical Oncology 39, no. 15\_suppl (May 20, 2021) 5505-5505.
4. (SDARAP Phase 2 Study) Matthonis et al. DOI: 10.1200/JCD.2021.0900 Journal of Clinical Oncology 41, no. 13 (May 01, 2023) 2436-2445.
Comparisons to adavosertib and Mirvetuximab are not head-to-head comparisons

Data cut-off: April 24, 2023 17

# **Azenosertib Monotherapy**

Paving Path to Registration with Three Ongoing Trials Accruing at New Intermittent Dose

# Zentalis 004 (TETON): Azenosertib Monotherapy In Women With ≥2L Advanced Uterine Serous Carcinoma

**CURRENTLY ACCRUING- FDA Fast track designation** 

Key Eligibility: Recurrent or persistent USC; ≥1 prior platinum-based chemotherapy regimen; Prior HER-2 directed therapy for known HER-2+; Prior anti-PDL-1; Measurable disease; ECOG PS 0-1; No prior WEE1 inhibitor; No prior cell cycle checkpoint inhibitor.



NCT04814108



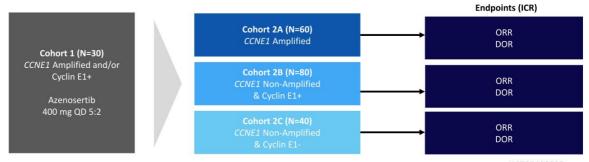
Abbreviations: 2L, two lines; USC, uterine serous carcinoma; ECOG PS, Eastern Cooperative Oncology Group performance score;
QD, once daily; 5:2, 5-days, of treatment followed by 2-days off treatment; CRR, objective response rate; DOR, duration of response
The FDA granted Fast Track designation in November 2021 to arenosertib in patients with advanced or metastatic USC who have received at least one prior platinum-based chemotherapy regimen for management of advanced or metastatic disease.

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## Zentalis 005 (DENALI): Evaluating Impact of CCNE1 Amplification and Cyclin E1+ in Platinum-Resistant High-Grade Serous Ovarian Cancer

#### **CURRENTLY ACCRUING**

Key Eligibility: High-Grade Serous Ovarian Cancer; ECOG PS 0-1; Platinum-resistant (excluding Platinum-refractory); 1-3 prior lines of chemotherapy; Measurable disease per RECIST v 1.1



NCT05128825



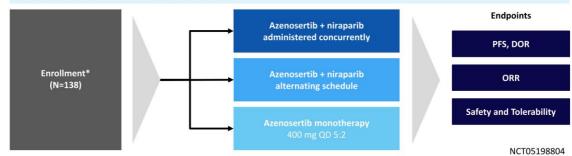
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Abbreviations: ECOG PS, Eastern Cooperative Oncology Group performance score; RECIST, response evaluation criteria in solid tumors; OD, once daily; 5:2, 5-days of treatment followed by 2-days off treatment; ORR, objective response rate; DOR, Duration of Response; ICR, Independent Central Review

## Zentalis 006 (MAMMOTH): Revised Phase 1/2 Study Of Azenosertib In Combination With Niraparib Or Alternating With Niraparib Or As A Monotherapy in Patients With PARP-resistant Ovarian Cancer

#### **CURRENTLY ACCRUING**

Key Eligibility: Recurrent high-grade epithelial ovarian, primary peritoneal, or fallopian tube cancer (serous, clear cell or endometrioid); 1 – 5 prior lines for advanced/metastatic disease; Relapsed within 6 months of platinum therapy (platinum resistant), progressed after taking at least 3 months of PARPi as maintenance treatment.



\* Enrollment Based on Slot Availability



Zentalis\*
Abbreviations: PARPi, poly-ADP ribose polymerase inhibitor; QD, once daily; 5:2, 5-days of treatment followed by 2-days off treatment; PFS, progression free survival; ORR, objective response rate

# **Azenosertib Combination** with Chemotherapy

Strong and Durable Efficacy Signals and Favorable Safety Profile Across Chemotherapy Backbones Enable Advancement into Phase 3 in Ovarian Cancer

# Addition of Azenosertib to Chemotherapies Increases Response Rates and Durability of Response in Ovarian Cancer Compared to Chemotherapy Alone



**50% Objective Response Rate** with 7.4-month Progression Free Survival in paclitaxel combination



Superior durability in carboplatin combination with 10.4-month Progression Free Survival and 36% Objective Response Rate



Overall tolerability of paclitaxel and carboplatin combinations **compares favorably to SOC** chemotherapy doublets paclitaxel-carboplatin or PLD-carboplatin



Cyclin E1+ status associated with superior Objective Response Rate and longer Progression Free Survival across response-evaluable patient population

**Registrational Phase 3 Trial Announced in Platinum Sensitive Ovarian Cancer** 

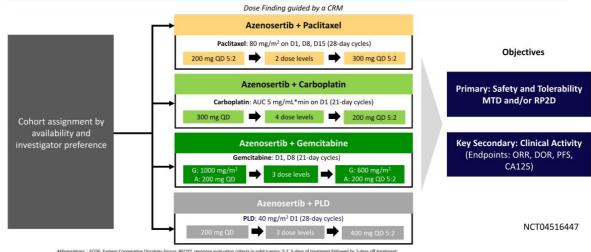


SOC, standard of care; PLD, pegylated liposomal doxorubicin

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## Zentalis 002: Phase 1b Combination Study To Define RP2D Dosing

Key Eligibility: High-Grade Serous Ovarian Cancer; ECOG Performance Status 0-2; Platinum-resistant/refractory; Up to 3 prior lines of chemotherapy; Measurable disease per RECIST v 1.1



**zentalis**°

Abbreviations: ; ECOG, Eastern Cooperative Oncology Group; RECIST, response evaluation criteria in solid tumors; 5:2,5-days of treatment followed by 2-days off treatment; CRM, continuous ressussment model: QD, once daily; D, day, AUC, area under the curve; G, geniciabine; A atenosertib; PID, pegylated liposomal doxorubicir; MTD, maximum tolerated dose; RPZD, recommended Phase dose; QRR, Objective response rate; QD, duration of response; PS, progression of the survival; Usu, J, et al. "Correlation of Cyclin EI expression and clinical outcomes in a Phase 1b dose-escalation study of Azenosertib (ZN-43), a WEEI inhibitor, in combination with chemotherapy (CT) in patients (pts) with platinum-resistant or reflective (VIR) eightibil outsine, performace), and lipidipsin tube career (ECQC) "Poster presented ACCO 2023

# **Encouraging Efficacy and Durability in Azenosertib Chemotherapy Doublets**

Endpoint	Azenosertib + Paclitaxel (N=26)	Azenosertib + Carboplatin (N=36)	Azenosertib + Gemcitabine (N=18)	Azenosertib + PLD (N=35)	Total (N=115)
Response-Evaluable* (N)	22	28	13	31	94
ORR (confirmed), N (%)	11 (50.0)	10 (35.7)	5 (38.5)	6 (19.4)	32 (34.0)
Median DOR (95% CI) in months	5.6 (3.8-NE)	11.4 (8.3-NE)	6.2 (NE)	7.3 (1.5-NE)	8.3 (5.6-12.4)
Clinical Benefit Rate (CR + PR + SD for ≥ 16 weeks), N (%)	18 (81.8)	16 (57.1)	6 (46.2)	24 (77.4)	64 (68.1)
Median PFS (95% CI) in months	7.4 (5.5-NE)	10.4 (3.3-14.5)	8.3 (3.3-NE)	6.3 (3.7-11.0)	9.0 (5.8-13.7)



\*Response evaluable subjects are treated subjects with baseline measurable disease per RECIST version 1.1 and at least one post-baseline assessment.

All objective responses were confirmed per RECIST v 1.1.

Abbreviations: PLD, peptided liposomial dozovorbidich; OBR, objective response rate; DOR, duration of response; CI, confidence interval; NE, not estimable;

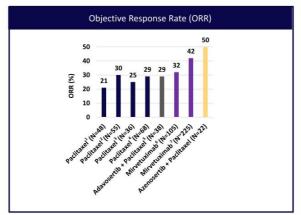
CR, complete response; PR, partial response; SD, stable disease; PFS, progression-free survival; RECIST, response evaluation criteria in solid tumors

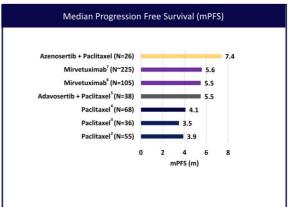
Lu., Let at. Correlation of Cyclin Et expression and indicinal outcomes in a Phase Indoor-exclaint study of Aeroscoretia (ZN-43), a WEEL inhibitor, in combination with chemotherapy (CT) in patients (pts) with platinum-resistant or refractory (R/R) epithelial ovarian, peritoneal, or fallopian tube cancer (ECC)." Poster presented ASCO 2023





## Activity of Azenosertib + Paclitaxel is Robust and Competitively Favorable



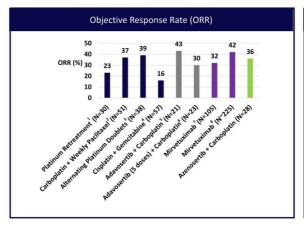


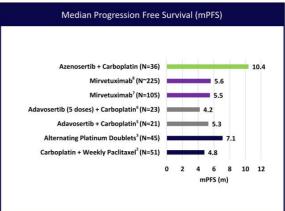


References: 1. Markman et al. Gynecol Oncol 2006;101:436-40. 2. AURELIA: Avastsin USPI 3. MITO11: Pignata et al. Lancet Oncol 2015;16:561-68. 4. OCTOPUS Banerjee et al. ESMO 2019. 5, GYN49: Moore et al. Clin Cancer Res. 2022;28:36-44. 6. SOBAYA: Matulonis et al. J Clin Oncol 2023;41:2436-45. 7. MIRASOL: immunogen Press Release May 3, 2023. Abbreviations: ORB, objective response rate; mrbs. median progression free survivals. m, months Comparisons to historic benchmarks on this side are not head-to-head comparisons.

Unu, 1, et al. "Groventian of Cycle It Sepression and clinical automores in a Phase 1a dose-escalation study of Azenosentib (20-c3), a WEE1 inhibitor, in combination with chemotherapy (CT) in patients (pts) with platinum-resistant or refractory (R/R) epithelial ovarian, pertoneal, or fallopian tube cancer (EOC)." Poster presented ASCO 2023

## Activity of Azenosertib + Carboplatin is Robust and Highly Differentiated on Durability







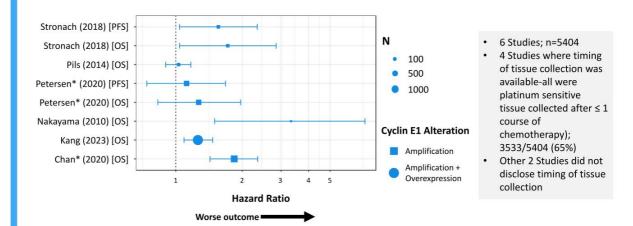
References: 1. Leltao et al. Gynecol Oncol 2003;91:123-9. 2. CARTANHY: Lortholary et al. Ann Oncol 2012;23:346-52. 3. Pectasides et al. Gynecol Oncol 2010;118:52-7. 4. Brewer et al. Gynecol Oncol 2006;103:446-50. 5. MK-175-009: Leijner et al. J. Clin Oncol 2016;34:354-61. 6. CIVN-49: Moore et al. Clin Cancer Res 2022;28:36-64. 7. SORAYA: Mutulonis et al. J. Clin Oncol 2023;41:2436-2445. 8. MRRASOL: Immunogen Press Release May 3, 2023. Abbreviations: ORR, Dipictive response rate, mPSr. explain progression free survival: m, months.

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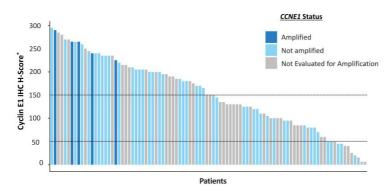
Liu, J. et al. "Correlation of Cycle Its expression and indical automose in a Phase 1a dose-exclusion study of Azenosertib (ZN-23), a WEE1 inhibitor, in combination with chemotherapy (CT) in patients (pts) with platinum-resistant or refractory (R/R) epithelial ovarian, peritones), or fallopian tube cancer (EOC)," Poster presented ASCO 2023

#### Ovarian Cancer Patients with CCNE1 Amplified and/or Cyclin E1 Positive Cancers have a Worse Outcome Following Platinum-Based Chemotherapy Treatment **Independent of Platinum-Sensitivity Status**



Zentalis<sup>a</sup> \*Timing of tissue collection was not disclosed. Abbreviations: PFS: progression free survival, **05**; overall survival

# Zentalis 002: Majority of Ovarian Cancers are Cyclin E1+



IHC H-Score*	>150	≤ 150 to > 50	≤ 50
CCNE1 Amplified	5	0	0
CCNE1 Not Amplified	25	15	6
Tissue Not Evaluated for Amplification	16	21	6

- H-score > 50 includes all CCNE1 amplified tumors
- Prevalence of Cyclin E1-IHC+, H-score > 50 of all safety evaluable patients with tissue is 82/94 (87%);
- Prevalence of Cyclin E1+ in the response evaluable patients with tissue is 70/82 (85%).

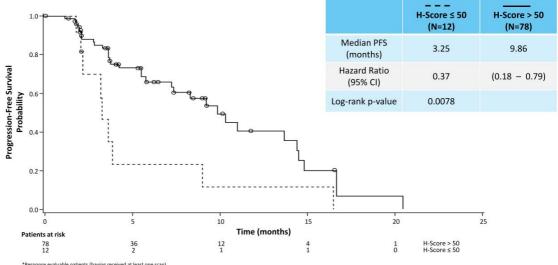


\*H-scores calculated by multiplying the percentage of cells (0 to 100%) with intensity of Cyclin E1 expression (0 to 3); HC: Immunohistochemistry

Safety evaluable: received at least one dose of drug; Response evaluable: have baseline measurable disease by RECIST 1.1, at least one post baseline scan, and received at least one dose of drug

Lu, t, et al. \*Correlation of Cyclin E1 expression and clinical outcomes in a Phase 1b dose-escalation study of Astronerth (ZRI-4), a WEE1 inhibitor, in combination with chemotherapy (CT) in patients (pt) with platinumeristic and or refractory (RN) epithelial ovarian, performed, or fallippin tube cancer (EOC; "Poster presented ASC 2016").

# Durability Triples in Patients with Cyclin E1+ Tumors Independent of Chemotherapy Backbone





esponse evaluable patients (having received at least one scan) breviations: IHC. immunohistochemistry : Cl. confidence interval

, J., et al. "Correlation of Cyclin E1 expression and clinical outcomes in a Phase 1b dose-escalation study of Azenosertib (ZN-c3), a WEE1 inhibitor, in combination with chemotherap f) in patients (pts) with platinum-resistant or refractory (R/R) epithelial ovarian, peritoneal, or fallopian tube cancer (EOC)." Poster presented ASCO 2023

Data cut-off: April 10, 2023

# Intermittent Dosing Across Chemotherapy Backbones Has Favorable Safety Profile

- Contractor	ment-Related se Event ≥20% N (%)		Azenosertib + Paclitaxel (Continuous, N=7; Intermittent, N=19) All Doses*		Paclitaxel Carboplatin Carboplatin Continuous, N=7; termittent, N=19) Carboplatin Carboplatin (Continuous, N=22; termittent, N=14) Intermittent, N=8)		Azenosertib + Gemcitabine (Continuous N=8; Intermittent, N=10) All Doses**		Azenosertib + PLD (Continuous N=27; Intermittent, N=8) All Doses*		Total (Continuous, N=64; Intermittent, N=51)			
	Grade	_	All Gr	Gr≥3	All Gr Gr≥3		All Gr Gr≥3		All Gr Gr≥3		All Gr Gr≥3		All Gr Gr≥3	
	Grade								2000		200.51			
	Neutropenia	С	5 (71.4)	5 (71.4)	9 (40.9)	7 (31.8)	4 (28.6)	3 (21.4)	7 (87.5)	6 (75.0)	19 (70.4)	17 (63.0)	40 (62.5)	35 (54.7)
		1	11 (57.9)	5 (26.3)	7 (50.0)	1 (7.1)	4 (50.0)	· = 1	7 (70.0)	4 (40.0)	3 (37.5)	3 (37.5)	28 (54.9)	13 (25.5)
Hematologic	Thrombo-	С	4 (57.1)	2 (28.6)	16 (72.7)	11 (50.0)	11 (78.6)	6 (42.9)	8 (100.0)	5 (62.5)	9 (33.3)	2 (7.4)	37 (57.8)	20 (31.3)
	cytopenia	1	4 (21.1)	-	9 (64.3)	5 (35.7)	4 (50.0)	2 (25.0)	8 (80.0)	6 (60.0)*	3 (37.5)	3 (37.5)	24 (47.1)	14 (27.5)
	Anemia	С	5 (71.4)	-	10 (45.5)	3 (13.6)	5 (35.7)	1 (7.1)	6 (75.0)	2 (25.0)	11 (40.7)	4 (14.8)	32 (50.0)	9 (14.1)
	Anemia	1	8 (42.1)	1 (5.3)	10 (71.4)	4 (28.6)	4 (50.0)	1 (12.5)	5 (50.0)	2 (20.0)	2 (25.0)	1 (12.5)	25 (49.0)	8 (15.7)
	Nausea	С	4 (57.1)	Page 1	15 (68.2)	1 (4.5)	10 (71.4)	1 (7.1)	5 (62.5)	· ·	16 (59.3)	2 (7.4)	40 (62.5)	3 (4.7)
	Nausea	I	7 (36.8)	1 (5.3)	6 (42.9)	2	3 (37.5)		5 (50.0)		4 (50.0)	1 (12.5)	22 (43.1)	2 (3.9)
Gastro-	Vanitina	С	3 (42.9)	1 (14.3)	8 (36.4)	2	6 (42.9)	151	1 (12.5)	4	11 (40.7)	2 (7.4)	23 (35.9)	3 (4.7)
intestinal	Vomiting	1	2 (10.5)	1 (5.3)	2 (14.3)		2 (25.0)		1 (10.0)	-	4 (50.0)	1 (12.5)	9 (17.6)	2 (3.9)
	Diarrhea -	С	4 (57.1)	1 (14.3)	4 (18.2)	-	1 (7.1)		1 (12.5)	-	8 (29.6)		17 (26.6)	1 (1.6)
	Diarrnea	1	6 (31.6)	1 (5.3)	5 (35.7)	-	3 (37.5)	-	6 (60.0)	-	2 (25.0)	-	19 (37.3)	1 (2.0)
Other	Falleria	С	6 (85.7)	1 (14.3)	8 (36.4)	6	3 (21.4)	(-)	3 (37.5)	1 (12.5)	8 (29.6)	3 (11.1)	25 (39.1)	5 (7.8)
Other	Fatigue	1	8 (42.1)	2 (10.5)	5 (35.7)	1 (7.1)	4 (50.0)	-	6 (60.0)	2 (20.0)	2 (25.0)	-	21 (41.2)	5 (9.8)



Abbreviations: C, Continuous azenosertib dosing; I, Intermittent azenosertib dosing; MTD, maximur olerated dose; PLD, pegylated liposomal doxorubicin

A MTD for Gemcitabine + Azenosertib has not been determined, further dose cohorts are ongoing

Liu, J., et al. "Correlation of Cyclin E1 expression and clinical outcomes in a Phase 1b dose-escalation study of Azenosentip [ZK-23], a WEE1 inhibitor, in combination with chemotherapy (CTI) in plantisms (tspl. with plantiumresistant or refractory (R/R) epithelial ovarian, peritoneal, or fallopian tube cancer (EOC)." Poster presented ASC 2023.

ata cut-off: April 10, 2023

## Data Supports Advancement of Azenosertib-Chemotherapy Combination into Platinum-Sensitive Ovarian Cancer & Earlier Line Therapy

#### RP2D established for paclitaxel, carboplatin and PLD combinations

RP2D						
	Azenosertib	Chemotherapy				
Paclitaxel	300 mg QD 5:2	80 mg/m² on D1, D8, D15 (28-day cycles)				
Carboplatin	200 mg QD 5:2	AUC=5 on D1 (21-day cycles)				
Gemcitabine	TBD*	TBD*				
PLD	400 mg QD 5:2	40 mg/m <sup>2</sup> D1 (28-day cycles)				

#### **Main Takeaways**

- Strong and durable efficacy signal across chemotherapy backbones
- Cyclin E1 status predicts benefit of azenosertib addition to chemotherapy
  - Suggests azenosertib restores chemotherapy sensitivity in heavily pre-treated platinumresistant ovarian cancer
- Plans to initiate Phase 3 study of azenosertib in combination with paclitaxel or with carboplatin in Cyclin E1+ platinum sensitive ovarian cancer



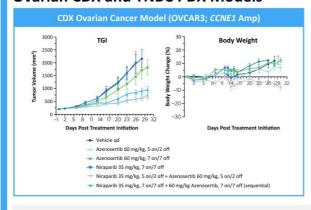
\*Gemcitabine + Azenosertib has exciting and durable activity-a MTD has not been determined, further dose cohorts are ongoing.

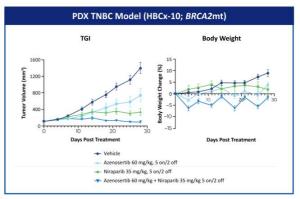
Abbreviations: RP2D, recommended phase 2 dose; PLD pegylated liposomal doxorubicin; QD, once daily;
5:2, 5-days of treatment followed by 2-days off treatment; D, day; AUC, area under the curve; mg/mt.\*min

## **Azenosertib**

Advancing Programs Investigating Post-PARPi Treatment and Post-BEACON BRAF mCRC, Supported by Strong Body of Preclinical Data

### Monotherapy Azenosertib +/- PARP Inhibitor Combinations are Active in both **Ovarian CDX and TNBC PDX Models**



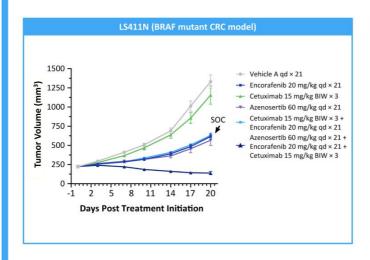


• Combination of PARP and WEE1 inhibitors in TNBC results in synergistic cell killing in preclinical models with either BRCA mutations or high levels of Cyclin E1 1



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 Chen X Cancers (Basel). 2021 Apr 1;13(7). Abbreviations: PARP, poly (ADP-ribose) polymerase; CDX, cell line derived xenograft; TNBC, triple-negative breast cancer; PDX, patient derived xenograft; TG, tumor growth inhibition

# Preclinical Data Supports the Combination of Azenosertib with Encorafenib and Cetuximab (BEACON Regimen)



- Oncogene-induced replication stress in mutationally driven cancers such as BRAF mutant colorectal cancer leads to DNA damage and genomic instability
- Oncogene activation disrupts replication regulation leading to slow and stalled replication forks and other defects and leads to DNA damage
- Dependency of cancers with replication stress on WEE1 signaling provides a mechanistic basis for synergy with EGFR/BRAF inhibition
- Addition of azenosertib to the BEACON regimen is well tolerated and provides superior efficacy in an in vivo model of BRAF mutant CRC



Kotsantis, et al. Cancer Discov. 2018 May; 8(5): 537-555.

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### **BRAF mCRC Study in Collaboration with Pfizer**

Key Eligibility: Patients with mCRC and documented BRAFV600E mutation; Disease progression after 1 or 2 previous regimens for metastatic disease; Prior therapy may include BRAF and/or EGFR directed therapy (e.g., may have progressed after BEACON regimen)



#### Triplet Combination to be Investigated in Patients With Significant Unmet Need

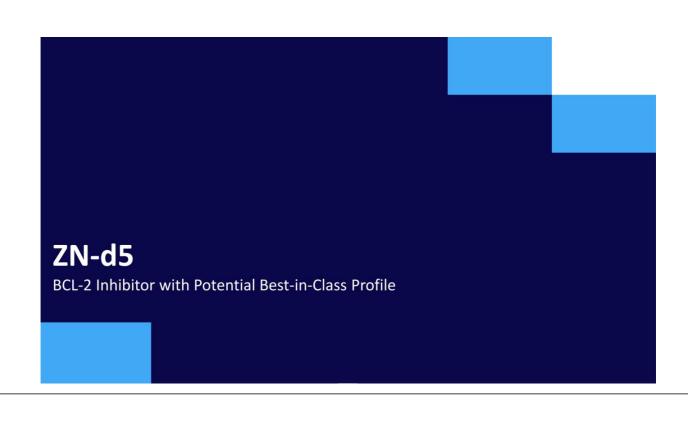
- Median OS in BRAF mutant CRC patients <1 year, vs. BRAF WT >2 years2
  While targeted BRAF inhibition (e.g., vemurafenib) has been successful in melanoma with response rates >80%, this strategy has failed in CRC (OR ~5%) due to innate resistance3
- Encorafenib in combination with cetuximab (BEACON) was approved for BRAF V600E mCRC in April 2020 and is now the standard of care



Survival Differences in Subgroups According to ERAS/IBRAF Mutation Status and Tumor Tissue Availability in a Prospective Population-Based Metastatic Colorectal Cancer Cohort. PLoS One-neb and Tissuelinish in BRAF VGOD-Mutater Colorectal Cancer. J Clin Oncol (2015) Dec 1; 33(34): 4023-4031 3 Kopetz et al. Encordenib, Bismetrinib, and Cetualmah in BRAF VGOD-Mutated joed Cortical Secretion, parts from George China rights (Zentum) and Cetualmah in BRAF VGOD-Mutated joed Cortical Secretion, parts from George China rights (Zentum). 2 Sentalis Solve N. Dragonir A. Sundström M., et al. High BRAF Mutation Frequency and Market .

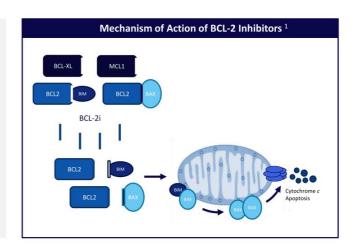
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### **BCL-2: A Clinically Validated Oncology Target**

- BCL-2 is an anti-apoptotic protein involved in tumor survival and resistance to chemotherapy 1
- The intrinsic apoptotic pathway is controlled by the BCL-2 protein family on outer mitochondrial membrane<sup>2, 3</sup>
- BCL-2 inhibitors may restore the normal apoptosis process, making it an important cancer therapeutic target





Zentalis 1. Konopleva M et al. Cancer Discov. 2016 Oct;6(10):1106-1117 2. Konopleva M and Letai A. Blood. 2018 Sep 6;132(10):1007-1012 3. Bhola PD and Letai A. Mol Cell. 2016;61(5):695-704

### ZN-d5: A Potent BCL-2 Inhibitor Designed with Improved Selectivity for BCL-2

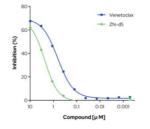
## ZN-d5 has 10x Improved Selectivity for BCL-2 vs BCL-xL and Binds With Higher Affinity to BCL-2 Mutants than Venetoclax

Compound ID	Affinity (Kd, nM)			IC <sub>50</sub> (nM) BCL-2 Type			
	BCL-2	BCL-xL	MCL-1	WT	G101V	F104L	D103Y
Venetoclax	0.41	28	>30000	1.3	7.3	8.4	18.3
ZN-d5	0.29	190	>30000	1.4	3.7	1.4	5.0

#### ZN-d5 Exhibits Potent In Vitro Activity Across Multiple **Tumor Cell Lines**

	CTG IC <sub>50</sub> (nM)							
Compound ID	ALL	MCL		DLBCL		AML		
	RS4;11	Mino-1	Granta- 519	DOHH-2	Toledo	HL-60	Molm-13	MV4-11
Venetoclax	2.9	1.1	161	43	191	26	18	3.8
ZN-d5	5.1	0.1	89	50	92	21	39	5.1

ZN-d5: Less Human Platelet Toxicity Compared to Venetoclax in an in vitro Assay



Compound ID	CTG (24 h) IC <sub>50</sub> (mM)
Venetoclax	0.6
ZN-d5	2.4

ZN-d5 shows activity in preclinical models of ALL, NHL and AML



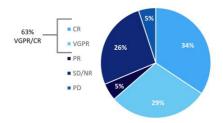
zentalis®. Venetoclax data based on evaluation of comparable proxy che

### ZN-d5 in AL (Primary) Amyloidosis

#### AL Amyloidosis study is currently enrolling patients

- AL Amyloidosis: Deposition of immunoglobulin light chains
  - Clonal plasma cell population secretes misfolding light chain
  - Progressive systemic amyloid accumulation causes widespread organ damage
  - · High morbidity and mortality
- Orphan disease
- Estimated worldwide prevalence is 75,000 <sup>1</sup>
- About 4k new cases/year in the US<sup>2</sup>
- · Not a cancer, but treated like one
  - · Agents active in multiple myeloma used in first-line and relapsed/refractory settings
  - $\bullet$  Daratumumab only approved the rapy, for first-line use with  $\ensuremath{\mathsf{CyBorD}}$
- Relapsed/refractory setting is a high unmet medical need

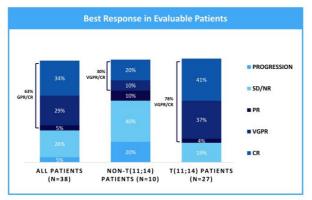


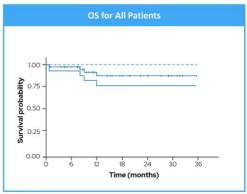




zentalis 1. Zhang et al. Clin Lymphoma Myeloma Leuk. 2019;19(suppl 10):e339 2. Kyle et al, Mayo Clin Proc. 2019;94:465-471 3. Premkumar et al, Blood Cancer J 2021;11:10; hematologic response rate in 38 evaluable patients.

### **BCL-2 Inhibition has Shown Robust Clinical Activity in AL Amyloidosis**





- Patients with the t(11;14) translocation have a worse prognosis than the general AL amyloidosis population<sup>1</sup>
- BCL-2 inhibition showed an improved response rate in the t(11;14) cohort with a trend towards better survival



Zentalis<sup>®</sup> 1. Premkumar et al, Blood Cancer J 2021;11:10; hematologic response rate in 38 evaluable patients.

### ZN-d5-003: Phase 1 Multicenter International Clinical Trial in R/R AL Amyloidosis

Key Eligibility: AL amyloidosis ; R/R to 1-3 prior lines of therapy; dFLC ≥20 mg/L; ECOG PS ≤2; Adequate hematologic and organ function



#### Study Details: DLT Period is 28 days

- Hematologic disease response assessments done every cycle for the first 6 months
- Protocol permits Backfill enrollment of additional patients at or below the highest previously cleared dose level

NCT05199337



Zentalis Abbreviations: R/R, refractory/resistant: AL, amyloid light chain; dFLC, difference between involved minus uninvolved serum free light chains; ECOG PS, Eastern Cooperative Oncology Group performance score; BID, twice daily; RP2D, recommended Phase 2 dose



### **BCL-xL Degrader Background and Rationale**

Declared development candidate and initial IND enabling activities

#### **Therapeutic Hypothesis**

- BCL-xL is a member of the anti-apoptotic BCL-2 proteins and is clinically validated. 1, 2
- Expression of BCL-xL contributes to therapeutic resistance mechanisms. 3, 4, 5
- Degrading BCL-xL will induce cell death and overcome resistance mechanisms in multiple cancer types, while reducing the possibility of on-target thrombocytopenia

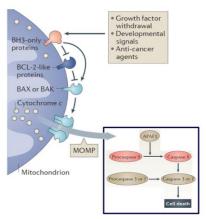
Azenosertib (WEE1 inhibitor) and ZN-d5 (BCL-2 inhibitor)

- BCL-xL is required for platelet viability and BCL-xL inhibitors (e.g. navitoclax) are dose limited in the clinic due to on-target thrombocytopenia.  $^6$
- A degradation approach with a non-functional or dysfunctional E3 ubiquitin ligase complex in platelets could help mitigate thrombocytopenia.<sup>7,8</sup>
- Efficacy may be achieved at lower doses and frequencies due to the catalytic MOA of degraders, further reducing the chance of thrombocytopenia and increasing the therapeutic index.

#### **Chemical Modality**

Heterobifunctional degrader linking a BH3 binding moiety to an E3 binding moiety

### **Competitive Landscape** Multiple inhibitors and one degrader in the clinic (Ph1/2)



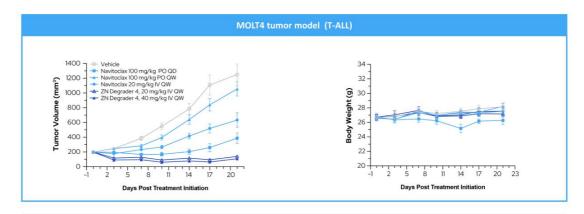


· Heme malignancies

Solid tumors

2 zentalis\* 1. Bhola PD and Letai A. Mol Cell. 2016;61(5):695-704. 2. Konopleva M and Letai A. Blood. 2018 Sep 6;132(10):1007-1012. 3. Rahman SFA et al., Future Oncology, 2020, 16(28). 4. Yue et al., Cnacer Cell Int., 2020, 20(254). 5. cbioportal.org. 6. Wilson WY et al., Lancet Oncol., 2010; 11(12):1149-1159. 7. Khan et al. Nature Med 12, 1938-1947 (2019). 8. He et al. Nature Comm 11, (2020) Figure from: Delbridge, A. R. D., et. al. Nat Rev Cancer 16, 99-109 (2016).

### BCL-xL Degrader is More Efficacious than BCL-xL Inhibitor (Navitoclax) in **MOLT4 (T-ALL) Model**



- BCL-xL degrader demonstrates excellent efficacy in the MOLT4 tumor model (T-ALL) and is well-tolerated at efficacious doses
- BCL-xL degrader is more efficacious than Navitoclax



zentalis® Navitoclax data based on evaluation of comparable proxy chi

### 2023 is a Catalyst Rich Year – Key Milestones

	Azenosertib WEE1 Inhibitor
<b>√</b> 1Q 2023	Initiate enrollment in the BRAF mutant colorectal cancer BEACON regimen combination clinical trial in collaboration with Pfizer
<b>√</b> 1H 2023	Provide preclinical rationale for Cyclin E1 enrichment strategy at a scientific conference
<b>√</b> 1H 2023	Declare monotherapy RP2D and provide update on dose optimization activities, program timelines and potential paths to registration
<b>√</b> 1H 2023	Results from Phase 1b ovarian chemotherapy combination trial, including clinical translational data on Cyclin E1 amplification / overexpression
2H 2023	Update interim efficacy clinical data from monotherapy dose optimization in solid tumors
2H 2023	Update monotherapy program timelines and potential paths to registration
1Q 2024	Initiate randomized Phase 3 trial of azenosertib + chemotherapy in Cyclin E1+ platinum sensitive ovarian cancer

ZN-d5 BCL-2 Inhibitor				
2H 2023	Provide interim clinical data and declare RP2D for Phase 1/2 monotherapy trial in amyloidosis			
2H 2023	Provide preliminary data from clinical trial of azenosertib + ZN-d5 in relapsed / refractory acute myeloid leukemia			

Discovery				
2023	Continue to advance the BCL-xL protein degrader program through IND enabling studies			
2023	Advance ongoing research on protein degrader programs of undisclosed targets			



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