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): March 11, 2025

APTOSE BIOSCIENCES INC.
(Exact name of registrant as specified in its charter)

Canada	**001-32001**	**98-1136802**
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)

66 Wellington Street West, Suite 5300
TD Bank Tower, Box 48
Toronto, Ontario M5K 1E6
Canada
(Address of Principal Executive Offices) (Zip Code)

(647) 479-9828
(Registrant's telephone number, including area code)

(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 Shares, no par value	APTO	The Nasdaq Stock 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 ☐

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 9.01. Financial Statements and Exhibits.

99.1	Aptose Corporate Presentation - March 2025
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURE

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.

Aptose Biosciences Inc.

Date: March 11, 2025

By: /s/ William G. Rice, Ph.D.
William G. Rice, Ph.D.
President and Chief Executive Officer

Aptose

Precision oncology company developing oral targeted agents to treat hematologic malignancies

Corporate Presentation
March 2025

APTOSE BIOSCIENCES

NASDAQ: APTO
TSX: APS

Tuspetinib in Frontline Triple Drug Therapy to Treat Newly Diagnosed AML

AML (Acute Myeloid Leukemia)

- Highly aggressive and deadly cancer of the bone marrow and blood

Current Frontline (1L) Standard of Care Therapy

- VEN+AZA (Venetoclax + Azacitidine) two drug therapy
- Survival too short | median Overall Survival <15mos
- Too few patients achieve complete responses (CR)
- VEN drug resistance emerges

Critical Medical Need for Improved 1L Therapy

- Need more Newly Diagnosed AML patients to achieve deep and sustained responses that extend survival

Solution: Add a 3rd Agent (Booster) to VEN+AZA

- Boost effectiveness of VEN+AZA standard of care
- Favorable safety | broad activity | avoid resistance

2 **AML** : Acute Myeloid Leukemia ; **TUS** : Tuspetinib ; **VEN** : Venetoclax ; **AZA** : Azacitidine ; **HMA** : Hypomethylating agent ; **SOC** : Standard of Care ; **CR** : Complete Remission ; **mOS** : median overall survival

Tuspetinib (TUS) Lead Clinical Asset

TUS is an Ideal 3rd Agent to Add to VEN+AZA

- Boosts efficacy
- Broad activity
- Favorable safety
- Minimizes risk of drug resistance

TUS+VEN+AZA Triplet Drug Combination

- Frontline therapy for Newly Diagnosed AML
- Safety and CRs achieved with 40mg TUS in TUS+VEN+AZA
  - CRs achieved in patients with diverse mutation profiles
  - FLT3-MUT, FLT3-WT, TP53-MUT, NPM1-MUT
  - Favorable safety to date
- 80mg TUS in TUS+VEN+AZA Triplet is enrolling
- High CR rates and durability of response are expected
- ONLY Triplet targeting FLT3-WT AML

$1Bn+ Commercial Potential for TUS as Frontline Therapy to Treat Newly Diagnosed AML

New Treatment Paradigm with *Triple Drug Therapy* for Newly Diagnosed AML

Adding a **Targeted Agent** to the **VEN+AZA** Backbone Therapy

Proof that Triplet Therapy Works with a Targeted Kinase Inhibitor

- Gilteritinib (Gilt) added to VEN+AZA boosts CR rate to 90%

So, What's the Problem: Gilt proves "Triplet Therapy" works, but has Limitations

- Gilt **active in 30%** of patients (harbor FLT3 mutation)
- Gilt **not active in 70%** of patients (no FLT3 mutation)
- Gilt **adds excessive toxicities** to the VEN+AZA backbone

Solution:
TUS as Superior 3rd Agent

- TUS has a cleaner safety profile
- TUS has broader activity
  TUS is active in Gilt-failure patients
- TUS can avoid drug resistance

Tuspetinib Triplet (TUS + VEN + AZA) being Developed as 1L Therapy for Newly Diagnosed AML to Improve Patient Responses and Survival Outcomes

1 Short et al. J Clin Oncol. 2024 Jan 26:JCO2301911. Epub ahead of print. PMID: 38277619.

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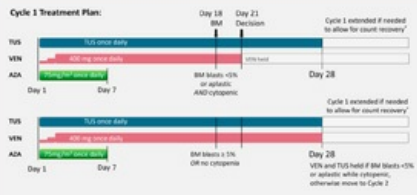
TUS+VEN+AZA Frontline Triplet : Clinical Data (as of February 2025)

- TUSCANY Dose-Selection Study Initiated Dec 2024
- Dosing Began with 40mg TUS and Escalated to 80mg TUS

TUS+VEN+AZA TUSCANY Study
Dose Selection | 40mg, 80mg, +
Safety, CR rate, MRD negativity, OS



***FLT3 ^{WT} (70% of cases)* Most Common AML**

- Only combination being developed for the FLT3 ^{WT} pts

***FLT3 ^{MUT} (30% of cases)* Intermediate-Risk AML**

- Seek to increase CR rates and survival of FLT3^{MUT} pts

TP53 ^{MUT}, RAS/MAPK ^{MUT} High-Risk AML

- Broad activity across adverse genetic subgroups
- Groups with greatest unmet medical needs

Expect ***Safer*** and ***Broader*** than other triplets

February 12, 2025

APTOSE BIOSCIENCES

Aptose's Frontline Triple Drug Therapy with Tuspetinib Achieves Notable Responses in Newly Diagnosed AML Patients in the Phase 1/2 TUSCANY Trial

TUS+VEN+AZA triplet achieves Cycle 1 complete remission (CR) in TP53-mutated/CK AML
TUS+VEN+AZA triplet achieves Cycle 1 complete remissions in FLT3-wildtype AML patients
TUS+VEN+AZA triplet shows favorable safety with no alteration of VEN and AZA dosing
PK levels of TUS in the triplet remain equivalent to levels as TUS or TUS+VEN therapy

SAN DIEGO and TORONTO, Feb. 12, 2025 (GLOBE NEWSWIRE) – Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ: APTO, TSX: APS), a clinical-stage precision oncology company, today reported promising early safety and response results from newly diagnosed acute myeloid leukemia (AML) patients dosed in Aptose's Phase 1/2 TUSCANY trial with a 40 mg dose of tuspetinib in combination with standard of care dosing of venetoclax and azacitidine (TUS+VEN+AZA triplet). The TUS+VEN+AZA triplet is being developed as a frontline therapy to treat large, mutationally diverse populations of newly diagnosed AML patients who are ineligible to receive induction chemotherapy.

February 20, 2025

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Aptose Announces Positive Clinical Safety Review Committee (CSRC) Approval to Dose Escalate in Phase 1/2 Tuscany Trial of Frontline Triple Drug Therapy with Tuspetinib Amid Complete Responses and Favorable Safety in First Cohort

- *TUS+VEN+AZA triplet achieves complete responses (CRs) in difficult-to-treat TP53-mutated/CK AML and FLT3-wildtype AML patients, including a measurable residual disease (MRD) negative remission*
- *Dosing of initial 40 mg cohort complete; no prolonged myelosuppression or dose-limiting toxicities*
- *No dose reductions to the standard-of-care components of the regimen (AZA/VEN) in first cohort*
- *CSRC endorses escalation to 80 mg dosing, enrollment is open*

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TUS+VEN+AZA Frontline Triplet Clinical Data (February 2025):
40mg TUS in Newly Diagnosed AML from TUSCANY Study

Safety of TUS+VEN+AZA Triplet with 40mg TUS

- No prolonged myelosuppression of subjects in remission
- No significant safety concerns or dose limiting toxicities (DLTs)
- No dose reductions to the standard-of-care components (AZA/VEN) in first cohort

Activity of TUS+VEN+AZA Triplet with 40mg TUS

- Achieved CRs in FLT3-Unmutated (FLT3-Wildtype) AML patients
- Achieved CR in difficult-to-treat TP53-Mutated/Complex Karyotype AML
- Achieved measurable residual disease (MRD) negative remission in Cycle 1

Dose Escalation of TUS+VEN+AZA Triplet to 80mg TUS

- Dosing of initial 40 mg cohort is complete
- Enrollment of patients at 80 mg dosing is ongoing

Dose Selection Planned During 2025 to Prepare for Ph 2/3 Pivotal Trials

- Planned data release throughout 2025 and into 2026
- Planned formal data release at EHA 2025 and ASH 2025 Hematology Conferences

Hanmi Pharmaceutical Participates in R&D and Manufacture Support of Tuspetinib

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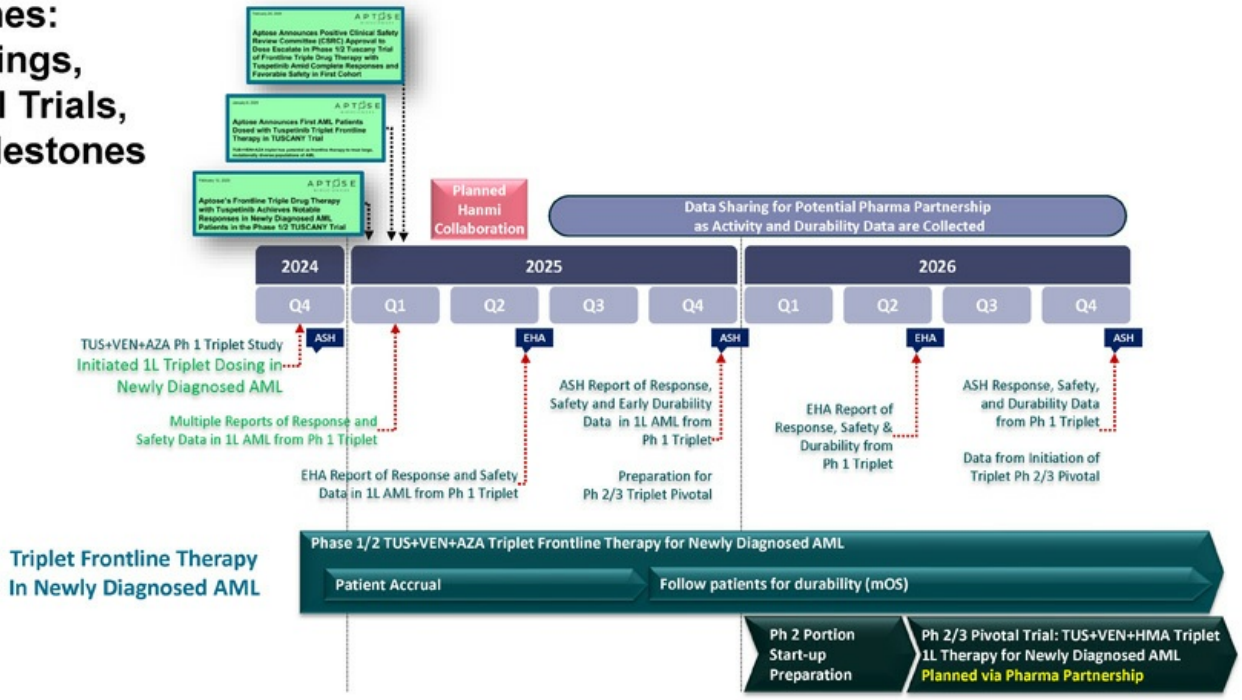
Timelines: Financings, Clinical Trials, and Milestones



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Aptose

Leadership and KOL Advisors

7 **AML** : Acute Myeloid Leukemia ; **TUS** : Tuspetinib ; **VEN** : Venetoclax ; **AZA** : Azacitidine ; **HMA** : Hypomethylating agent ; **SOC** : Standard of Care ; **CR** : Complete Remission ; **mOS** : median overall survival

Aptose Management Team

William G. Rice, PhD
Chairman, President
& Chief Executive Officer

NIH NATIONAL CANCER INSTITUTE · ACHILLION · EMORY UNIVERSITY SCHOOL OF MEDICINE · CYLENE Pharmaceuticals

Fletcher Payne
Sr. VP, Chief Financial Officer
& Chief Business Officer

CATALYST BIOSCIENCES · CytomX · Syapse · IBM · Plexxikon · Abgenix · RINAT NEUROSCIENCE · Sun microsystems · CELL GENESYS

Rafael Bejar, MD, PhD
Sr. VP & Chief Medical Officer
KOL, Hematologic Malignancies

Dana-Farber Cancer Institute · BRIGHAM AND WOMEN'S HOSPITAL · UC San Diego MOORES CANCER CENTER · mds Myelodysplastic Syndromes (MDS) Foundation

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Aptose is Developing Oral Targeted Agents to Treat Acute Myeloid Leukemia (AML)

- AML is a highly aggressive and deadly cancer of the blood and bone marrow
- Leverage Hematology/Oncology KOLs to advise on asset selection and development

Scientific Advisory Board

Brian Druker, M.D.
Chair, Aptose Scientific Advisory Board
Lead Investigator of Beat AML Initiative

Daniel D. Von Hoff, M.D., F.A.C.P.

Michael Andreeff, M.D., PhD.

Stephen B. Howell, M.D.

Ad Hoc AML Clinical Advisory Board

Alexander E. (Sasha) Perl, M.D
University of Penn

Naval Daver, M.D.
MD Anderson Cancer Center
Chair

Amir Fathi, M.D.
Mass General Hospital

Courtney DiNardo, M.D., MSCE
MD Anderson Cancer Center

Justin Watts, M.D.
University of Miami

David A. Stallman, M.D.
Moffitt Cancer Center

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Investment Thesis

Hanmi Collaboration Reduces Investment Risk

- Hanmi-Aptose collaboration agreement *(expected Q2/2025)* planned to provide significant capital to fund the TUS Triplet Study
- Hanmi's $10M advance being converted to common stock

Proven Effectiveness of Frontline Triplet as Concept

- Gilt triplet improves response rates (CR > 90%)
- Gilt triplet improves the durability of responses
- But, Gilt only applicable to $FLT3^{MUT}$ and toxicities remain

TUS+VEN+HMA Could Improve on Triplet Design

- Triplet demonstrated safety and efficacy in 1L AML
- Triplet has broad activity on $FLT3^{MUT}$ and $FLT3^{WT}$
- KOLs support TUS as the ideal 3rd agent for 1L triplet
  - Excellent safety profile and broad activity
  - May minimize resistance to VEN (Venetoclax)

Completed and 2025 Milestones

2024 Accomplishments

- √ Completed $10 million loan from Hanmi as Advance on Collaboration
- √ Completed $8 million S-1 financing
- √ Executed validating NCI MyeloMATCH for tuspetinib in AML/MDS
- √ Initiated dosing of TUS+VEN+AZA triplet in newly diagnosed AML
- √ ASH: Reported CR/Safety from APTIVATE TUS and TUS+VEN trial
- √ ASH: Reported dosing accrual from TUS+VEN+AZA triplet trial

2025: 1H

- √ Demonstrated safety and efficacy with 40mg TUS+VEN+AZA
- √ Enrolling 80mg TUS+VEN+AZA dose cohort in triplet study
- √ Report CR/MRD/Safety data from TUS+VEN+AZA triplet study

2025: EHA

- Report maturing data readout from TUS+VEN+AZA triplet study
- Hanmi/Aptose Collaboration expected Q1-2025

2025: ASH

- Select TUS dose for TUS+VEN+HMA triplet Ph 2/3 PIVOTAL trials
- Prepare for Ph 2 portion of Ph 2 / Ph 3 pivotal program

APTO Nasdaq

Rebalancing Risk and Reward: Clinical Data, Upcoming Milestones, and the Planned Collaboration with Hanmi

Market Summary

- ATM and CEF Established
- Executed Reverse Stock Split
- Planned financings and Hanmi Collaboration are earmarked to support TUS-based TUS+VEN+HMA Triplet development as a superior frontline therapy for newly diagnosed AML

Recent BD Deal in AML for Comparison

- Kura Oncology & Kyowa Kirin signed a $1.5B Global Collaboration to develop Ziftomenib in Nov. 2024

2024 Financing Activity Raise Approx. $37M

- $13.7M S-1 + Hanmi PIPE Jan. 2024
- $4.4M S-1 June 2024
- $10M Hanmi Advance Aug. 2024
- $8M Financing Nov. 2024

Capital Structure

- Common Shares O/S 2,143,366
- Warrants 1,267,585
- $10M loan from Hanmi as an advance on collaboration agreement

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Aptose Disclosure

This presentation does not, and is not intended to, constitute or form part of, and should not be construed as, an offer or invitation for the sale or purchase of, or a solicitation of an offer to purchase, subscribe for or otherwise acquire, any securities, businesses and/or assets of any entity, nor shall it or any part of it be relied upon in connection with or act as any inducement to enter into any contract or commitment or investment decision whatsoever.

This presentation contains forward-looking statements, which reflect APTOSE Biosciences Inc.'s (the "Company") current expectations, estimates and projections regarding future events, including statements relating to our business strategy, our clinical development plans, our ability to obtain the substantial capital we require, our plans to secure strategic partnerships and to build our pipeline, our clinical trials and their projected timelines and milestones, the efficacy and toxicity of our product candidates, potential new intellectual property, our plans, objectives, expectations and intentions; and other statements including words such as "anticipate", "contemplate", "continue", "believe", "plan", "estimate", "expect", "intend", "will", "should", "may", and other similar expressions. Such statements constitute forward-looking statements within the meaning of securities laws.

Although the Company believes that the views reflected in these forward-looking statements are reasonable, such statements involve significant risks and uncertainties, and undue reliance should not be placed on such statements. Certain material factors or assumptions are applied in making these forward-looking statements, and actual results may differ materially from those statements. Those factors and risks include, but are not limited to, our ability to raise the funds necessary to continue our operations, changing market conditions, the successful and timely completion of our clinical studies including delays, the demonstration of safety and efficacy of our drug candidates, our ability to recruit patients, the establishment and maintenance of corporate alliances, the market potential of our product candidates, the impact of competitive products and pricing, new product development, changes in laws and regulations, uncertainties related to the regulatory approval process and other risks detailed from time to time in the Company's ongoing quarterly filings and annual reports.

Forward-looking statements contained in this document represent views only as of the date hereof and are presented for the purpose of assisting potential investors in understanding the Company's business and may not be appropriate for other purposes. The Company does not undertake to update any forward-looking statements, whether written or oral, that may be made from time to time by or on its behalf, except as required under applicable securities legislation. Investors should read the Company's continuous disclosure documents available at EDGAR at www.sec.gov/edgar.shtml and SEDAR+ at www.sedarplus.com, especially the risk factors detailed therein.

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Thank you

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Appendix

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Tuspetinib Development Path

Findings from the TUS Single Agent Trial and the TUS-VEN Doublet Trial in R/R AML Supported Advancement to the TUSCANY Trial of the TUS+VEN+AZA Triplet for 1L Therapy in Newly Diagnosed AML Patients

TUS single agent in R/R AML patients:
Dose escalation study to select Single Agent RP2D and demonstrate safety and efficacy in R/R AML patients

TUS+VEN doublet in R/R AML patients:
Study to demonstrate safety, efficacy, and PK of TUS combined with VEN in R/R AML patients

TUS+VEN+AZA triplet in Newly Diagnosed AML:
Frontline therapy study in Newly Diagnosed AML patients to select the optimal doses for Ph2/3 pivotal studies

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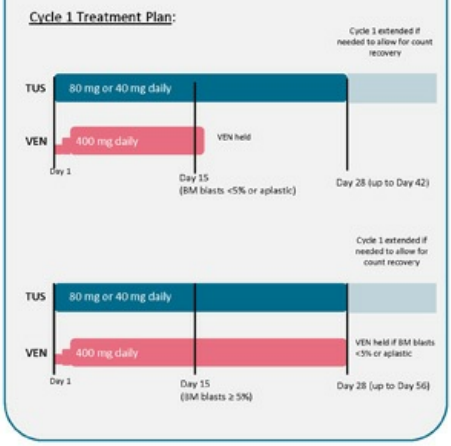
Completed TUS Single Agent and TUS+VEN Doublet in Prior Therapy Failure R/R AML Findings Supported Advancement to TUS+VEN+AZA Triplet TUSCANY Trial

TUS Single Agent
Dose Escalation and Exploration[1]

	Total n=93
Cohort 1: 20 mg QD	2
Cohort 2: 40 mg QD	17
Cohort 3: 80 mg QD	20
Cohort 4: 120 mg QD	32
Cohort 5: 160 mg QD	16
Cohort 6: 200 mg QD	4

Doses with CR & no DLT

TUS+VEN Doublet Study
Extensive Dose Exploration: Total N = 79 (TUS 80mg or 40mg + VEN 400mg)



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TUS and TUS+VEN Clinical Findings in Highly Tx Experienced R/R AML Patients

Safe and Well Tolerated | Achieve Bone Marrow Blast Reductions and Responses

TUS Single Agent Once Daily Orally (n= 93 Pts)

- **Excellent Safety and Tolerability**
  - No drug-related myelosuppression in remission
  - No drug-related QTc prolongation or CPK elevations
  - No drug-related discontinuations or deaths
  - No drug-related non-hematologic SAEs
  - No DLTs through 160 mg per day
  - No differentiation syndrome
- **CR/CRh Responses**
  - CR/CRh at 40, 80, 120, 160 mg with no DLTs
- **RP2D Selected as 80mg Once Daily Oral Tablet**
  - 60% CR/CRh in FLT3 mutated AML
  - 42% CR/CRh in all-comer VEN-naïve AML
- **Across 40, 80, 120, and 160 mg TUS Single Agent**
  - 33% CRc in FLT3-MUT AML / VEN-naïve patients
  - 42% ORR in FLT3-MUT AML / VEN-naïve patients
  - Includes failure of prior VEN, FLT3i, HMA, Chemo
  - Includes FLT3-MUT, FLT3-WT, and prior-HSCT

TUS/VEN Doublet Once Daily Orally (n= 79 Pts)

- **Favorable Safety and Tolerability**
  - Doublet can be safely co-administered
  - No new or unexpected safety concerns
  - No drug related deaths
- **Formal Responses**
  - Includes diverse R/R AML with adverse mutations
  - Includes failure of prior VEN and FLT3i
  - Includes FLT3-WT, FLT3MUT, TP53-MUT
  - 40% ORR with 80mg TUS+400mg VEN in FLT3-MUT
    - 83% (5/6) had failed prior-VEN
    - 50% (3/6) had failed both prior-VEN and prior-FLT3i
- **Broad Activity Across R/R AML populations**
  - Active in the difficult-to-treat prior-VEN AML
  - Active in FLT3-WT, representing ~70% of AML pts
- **Combination May Avoid VEN resistance**

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TUS and TUS+VEN Safe and Well Tolerated in Highly Treatment Experienced R/R AML

TUS Single Agent Study Excellent Safety and Tolerability

- No drug-related myelosuppression in remission
- No treatment related QTc prolongation or CPK elevations
- No drug-related discontinuations or deaths
- No drug-related non-hematologic SAEs
- No differentiation syndrome

TUS+VEN Doublet Study Excellent Safety and Tolerability

- No new or unexpected safety signals with TUS+VEN
- No drug related AE of QTc prolongation
- No differentiation syndrome observed
- No drug related deaths

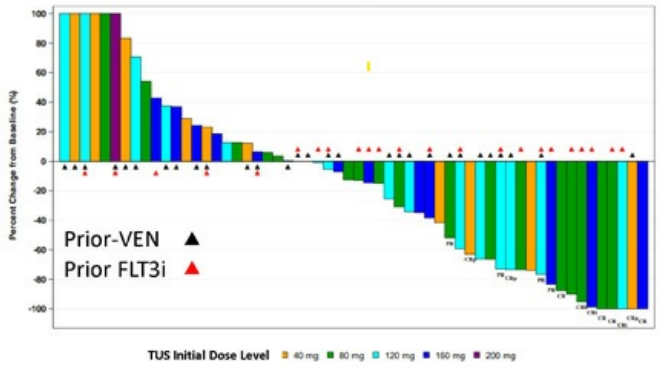
Adverse Events	TUS Single Agent		TUS+VEN Doublet		
			Related to TUS/VEN, n(%) (n=79)		
	Treatment Emergent AEs	Treatment Related AEs	Treatment Emergent AEs	Treatment Emergent AEs Related to TUS	Treatment Emergent AEs Related to VEN
Any	89 (95.7%)	29 (31.2%)	77 (97.5%)	40 (50.6%)	37 (46.8%)
Most Frequent AEs ≥10%					
Pneumonia	32 (34.4%)	0 (0%)	19 (24.1%)	2 (2.5%)	3 (3.8%)
Nausea	20 (21.5%)	9 (9.7%)	21 (26.6%)	14 (17.7%)	10 (12.7%)
Pyrexia	19 (20.4%)	0 (0%)	10 (12.7%)	1 (1.3%)	1 (1.3%)
Diarrhoea	18 (19.4%)	9 (9.7%)	15 (19.0%)	5 (6.3%)	4 (5.1%)
Alanine aminotransferase increased	13 (14.0%)	2 (2.2%)	12 (15.2%)	3 (3.8%)	3 (3.8%)
Hypokalaemia	13 (14.0%)	0 (0%)	11 (13.9%)	2 (2.5%)	1 (1.3%)
Epistaxis	12 (12.9%)	0 (0%)	4 (5.1%)	0 (0%)	0 (0%)
Decreased appetite	11 (11.8%)	2 (2.2%)	11 (13.9%)	4 (5.1%)	4 (5.1%)
Febrile neutropenia	11 (11.8%)	1 (1.1%)	21 (26.6%)	3 (3.8%)	4 (5.1%)
Hypomagnesaemia	11 (11.8%)	0 (0%)	4 (5.1%)	1 (1.3%)	1 (1.3%)
Abdominal pain	10 (10.8%)	0 (0%)	4 (5.1%)	1 (1.3%)	1 (1.3%)
Constipation	10 (10.8%)	2 (2.2%)	6 (7.6%)	0 (0%)	0 (0%)
Dyspnoea	10 (10.8%)	0 (0%)	8 (10.1%)	0 (0%)	0 (0%)
Fatigue	10 (10.8%)	2 (2.2%)	16 (20.3%)	7 (8.9%)	6 (7.6%)
Headache	10 (10.8%)	1 (1.1%)	7 (8.9%)	0 (0%)	0 (0%)
Anaemia	7 (7.5%)	0 (0%)	10 (12.7%)	3 (3.8%)	3 (3.8%)
Aspartate aminotransferase increased	4 (4.3%)	1 (1.1%)	11 (13.9%)	2 (2.5%)	2 (2.5%)
Cough	8 (8.6%)	0 (0%)	10 (12.7%)	0 (0%)	0 (0%)
Platelet count decreased	5 (5.4%)	1 (1.1%)	10 (12.7%)	4 (5.1%)	3 (3.8%)
White blood cell count decreased	4 (4.3%)	2 (2.2%)	10 (12.7%)	6 (7.6%)	7 (8.9%)
Leukocytosis	4 (4.3%)	0 (0%)	8 (10.1%)	1 (1.3%)	0 (0%)
Neutrophil count decreased	5 (5.4%)	2 (2.2%)	8 (10.1%)	6 (7.6%)	5 (6.3%)
Vomiting	7 (7.5%)	2 (2.2%)	8 (10.1%)	3 (3.8%)	4 (5.1%)
Grade ≥ 3 AEs (≥10%)	67 (72.0%)	9 (9.7%)	68 (86.1%)	22 (27.8%)	22 (27.8%)
Pneumonia	27 (29.0%)	0 (0%)	17 (21.5%)	2 (2.5%)	3 (3.8%)
Febrile neutropenia	11 (11.8%)	1 (1.1%)	20 (25.3%)	2 (2.5%)	3 (3.8%)
Anaemia	6 (6.5%)	0 (0%)	9 (11.4%)	2 (2.5%)	2 (2.5%)
Platelet count decreased	4 (4.3%)	0 (0%)	10 (12.7%)	4 (5.1%)	3 (3.8%)
Neutrophil count decreased	5 (5.4%)	2 (2.2%)	8 (10.1%)	6 (7.6%)	5 (6.3%)
SAEs					
Leading to treatment termination	12 (12.9%)	1 (1.1%)	10 (12.7%)	0 (0%)	10 (12.7%)
Leading to death	17 (18.3%)	0 (0%)	18 (22.8%)	0 (0%)	0 (0%)

Data Cut 05 Nov 2024

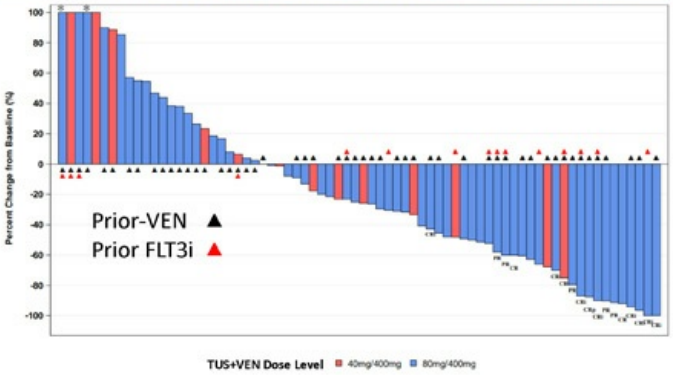
APTOSE BIOSCIENCES

TUS and TUS+VEN : Bone Marrow Blast Reductions and Responses in R/R AML Patients

TUS Single Agent Treatment
Bone Marrow Leukemic Blasts | Percent Change from Baseline
Blast Reductions Demonstrate Activity Across 4 Dose Levels
Activity in Patients Who Failed Prior-VEN and Prior-FLT3i



TUS-VEN Doublet Treatment
Bone Marrow Leukemic Blasts | Percent Change from Baseline
Blast Reductions in VEN-Naïve and Prior-VEN R/R AML
Blast Reduction in R/R AML Who Failed Prior-VEN and Prior-FLT3i



Note: Blast percent change was calculated as 100 X (the lowest post-baseline bone marrow blast - baseline bone marrow blast)/baseline bone marrow blast. Patients with blast percent change >=100% are shown as 100%. Only patients who reported both baseline and any post-baseline bone marrow blast results are included in the figure.

▲ Black triangle indicates patients who received prior Ven before starting Tuspetinib.
▲ Red triangle indicates prior FLT3i.
* Black asterisk indicates patients who administered hydroxyurea within 7 days prior to the lowest marrow blast value.
Data cut Nov 05, 2024

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Tuspetinib

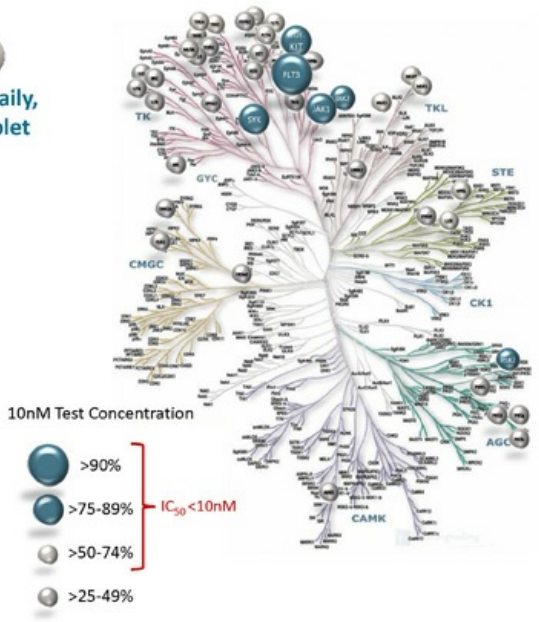
Precision Targeting Mechanism of Action

AML : Acute Myeloid Leukemia ; **TUS** : Tuspetinib ; **VEN** : Venetoclax ; **AZA** : Azacitidine ; **HMA** : Hypomethylating agent ; **SOC** : Standard of Care ; **CR** : Complete Remission ; **mOS** : median overall survival

Tuspetinib Kinase Inhibition Profile – Unique Target Profile

Suppresses *key* oncogenic signaling pathways
Avoids targets that compromise safety

Once-daily, oral tablet



Assay Methodology	Kinase	Mutation Status	Activity
Binding Affinity (K_D, nM)	FLT3	WT	0.58
		ITD	0.37
		D835Y	0.29
		D835H	0.4
		ITD/D835V	0.48
		ITD/F691L	1.3
Inhibition of Kinase Enzyme Activity (IC_{50}, nM)	FLT3	WT	1.1
		ITD	1.8
		D835Y	1.0
	SYK	WT	2.9
	JAK	JAK-1	2.8
		JAK-2	6.3
		JAK-2 (V617F)	9.9
	c-KIT	WT	> 500
		D816H	3.6
		D816V	3.5
	RSK	RSK-2	9.7

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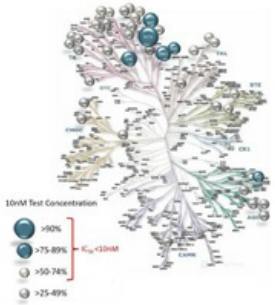
TUS Targets Known VEN-Resistance Mechanisms and May Minimize Drug Resistance

Tuspetinib:

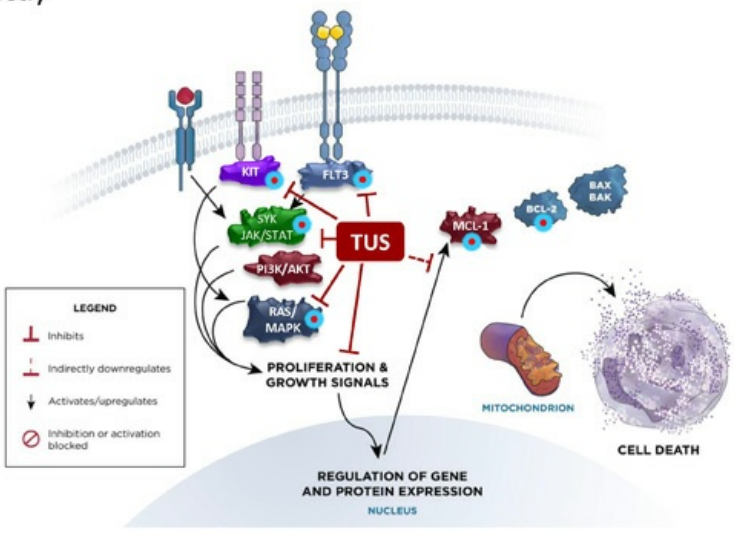
- Suppresses oncogenic signaling directly
- Promotes cancer cell death signaling indirectly



ESH EUROPEAN SCHOOL OF HAEMATOLOGY
Tuspetinib Oral Myeloid Kinase Inhibitor Creates Synthetic Lethal Vulnerability to Venetoclax

American Society of Hematology
Tuspetinib Oral Myeloid Kinase Inhibitor Safety and Efficacy As Monotherapy and Combined with Venetoclax in Phase 1/2 Trial of Patients with Relapsed or Refractory (R/R) Acute Myeloid Leukemia (AML)

RATIONALE FOR THE COMBINATION OF TUSPETINIB AND VENETOCLAX



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Thank you

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