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): January 13, 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)

(310) 849-8060
(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 - January 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: January 13, 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
January 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 Standard of Care Therapy

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

Critical Medical Need

- **Improved Therapy** to get **More** Newly Diagnosed AML Patients into **Deep and Sustained Responses** that **Extend Survival**

Adding a 3rd Agent to VEN+AZA

- **Boost Effectiveness** of VEN+AZA standard of care
- Improve safety | broad activity | avoid resistance

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

- **TUS: Boosts efficacy** when combined with VEN or AZA
- **TUS: Favorable safety** when combined with VEN or AZA
- **TUS: Broad activity** across diverse AML genetic subgroups
- **TUS: Minimize risk of drug resistance** when combined with VEN

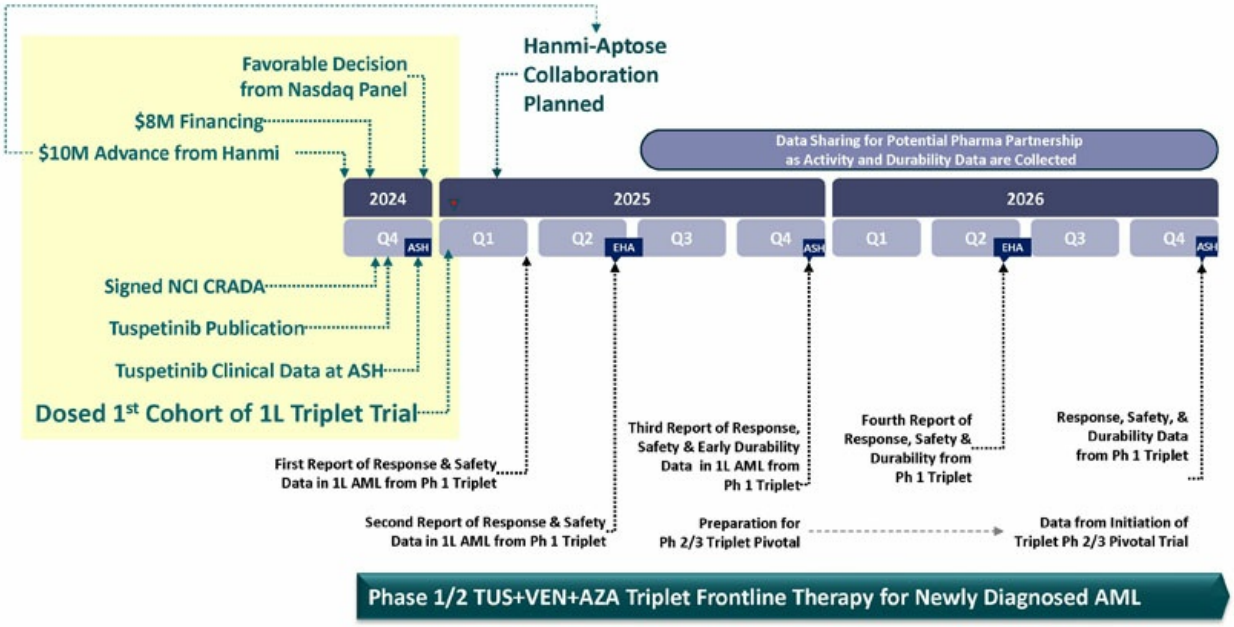
TUS+VEN+AZA Triplet Drug Combination

- Being developed to treat **Newly Diagnosed AML**
- Expect **high CR rates** and **durability** of response
- Expect to treat **FLT3-mutated** and **FLT3-wildtype** AML
- ***TUS+VEN+AZA triplet dosing of patients is ongoing***

TUS Commercial Potential Critical to Business Model

- **$1Bn+ market potential** to treat Newly Diagnosed AML

Key Milestones Achieved and Planned



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Recent Milestones and Press Releases

Aug 30, 2024:	**Aptose Receives $10 Million** Through a Facility Agreement with Hanmi; Negotiating Future Aptose-Hanmi TUS Collaboration Agreement to Jointly Develop Tuspetinib
Nov 20, 2024:	**Initiation of TUSCANY Phase 1/2 Study** for Newly Diagnosed AML Patients to Receive Tuspetinib-based Triplet Therapy
Nov 25, 2024:	**Closing of $8 Million** Public Offering
Dec. 3, 2024:	**Signing CRADA with National Cancer Institute** to Develop Tuspetinib for AML and MDS in Newly Launched MyeloMATCH Precision Medicine Trials
Dec. 9, 2024:	**Clinical Data Featured in Poster Presentation at the 2024 ASH** Annual Meeting Support Tuspetinib Triple Drug Therapy for Newly Diagnosed AML
Dec. 12, 2024:	**Aptose Announces Publication** of Preclinical Data in AACR Journal Demonstrating Tuspetinib's Unique Mechanism of Action and Synthetic Lethality on AML Cells When Combined with Venetoclax
Dec. 19, 2024:	**Aptose Announces Positive Decision by Nasdaq** Hearings Panel
Jan. 9, 2024:	**First AML Patients Dosed with Tuspetinib Triplet** Frontline Therapy in TUSCANY Trial

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August 30, 2024

Aptose Receives $10 Million Through a Facility Agreement with Hanmi; Negotiating Future Collaboration Agreement with Hanmi to Jointly Develop Tuspetinib

Proceeds to be used for development of lead compound tuspetinib in combination therapy as frontline treatment for newly diagnosed AML patients

SAN DIEGO and TORONTO, Aug. 30, 2024 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ: APTO, TSX: APS), a clinical-stage precision oncology company developing tuspetinib, a highly differentiated oral kinase inhibitor for the treatment of patients with acute myeloid leukemia (AML), today announced that it received a $10 million loan through a Facility Agreement with Hanmi Pharmaceutical Co. Ltd. ("Hanmi"). The loan is convertible as prepayment of milestone obligations under the Future Collaboration Agreement (as defined hereinafter) or repayable after the expected completion of a triple drug combination trial with tuspetinib in newly diagnosed AML patients. Aptose will use the proceeds from such loan for the development of tuspetinib.

Beyond the $10 million Facility Agreement, Aptose and Hanmi have agreed to negotiate a new tuspetinib co-development collaboration agreement (the "Future Collaboration Agreement'), intended to provide additional funding to accelerate clinical development of tuspetinib. Aptose licensed tuspetinib from Hanmi Pharmaceutical in November 2021.

November 20, 2024

Aptose Initiates TUSCANY Phase 1/2 Study for Newly Diagnosed AML Patients to Receive Tuspetinib-based Triplet Therapy

- *TUSCANY study is open to enroll patients to receive TUS+VEN+AZA triplet at select US sites*
- *Favorable safety and broad clinical activity make tuspetinib an ideal agent to combine with venetoclax and azacitidine to potentially address larger AML populations*
- *Study execution update is expected during ASH 2024*

November 25, 2024

Aptose Biosciences Inc. Announces Closing of $8 Million Public Offering

SAN DIEGO and TORONTO, Nov. 25, 2024 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ: APTO, TSX: APS), a clinical-stage precision oncology company developing highly differentiated oral targeted agents to treat hematologic malignancies, today announced the closing of its previously announced "reasonable best efforts" public offering with participation from the CEO and existing and new healthcare focused investors for the purchase and sale of 40,000,000 common shares at a price of $0.20 per share and warrants to purchase up to 20,000,000 common shares (the "Offering"). The warrants have an exercise price of $0.25 per share, are exercisable immediately and will expire five years from the issuance date. The Company received aggregate gross proceeds of $8 million, before deducting placement agent fees and other offering expenses, and intends to use the net proceeds from this Offering for working capital and general corporate purposes.

December 3, 2024

Aptose Signs CRADA with NCI to Develop Tuspetinib for AML and MDS in Newly Launched MyeloMATCH Precision Medicine Trials

- *Tuspetinib selected for a prestigious national clinical research program for ability to target broad spectrum of AML and MDS populations*
- *Trials to test tuspetinib in targeted drug combinations for frontline therapy of molecularly defined sub-groups of newly diagnosed AML and MDS*

SAN DIEGO and TORONTO, Dec. 03, 2024 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ: APTO, TSX: APS), a clinical-stage precision oncology company developing highly differentiated oral targeted agents to treat hematologic malignancies, today announced that the National Cancer Institute (NCI), part of the National Institutes of Health, and Aptose Biosciences Inc. have entered into a Cooperative Research and Development Agreement ("CRADA"). Under the CRADA, the NCI and Aptose will collaborate on the clinical development of Aptose's proprietary lead clinical-stage compound tuspetinib (TUS), an inhibitor of key signaling kinases involved in myeloid malignancies, in the NCI Cancer Therapy Evaluation Program (CTEP) sponsored myeloMATCH trials employing combinations of targeted therapy for the treatment of molecularly defined acute myeloid leukemia (AML) and myelodysplastic syndromes (MDS) populations. These trials will be conducted by NCI's National Clinical Trials Network (NCTN), with the participation of the NCI Community Oncology Research Program (NCORP) in the U.S. and Canada.

The myeloMATCH precision medicine trials (NCT05564390), funded by the NCI, were officially launched on May 16, 2024. myeloMATCH aims to expedite the development of tailored drug combination treatments for patients with newly diagnosed AML and MDS and to treat patients with these aggressive cancers of the blood and bone marrow from diagnosis throughout their treatment journey.

"We're grateful to be a part of NCI's myeloMATCH precision medicine trials," said William G. Rice, Ph.D., Chairman, President and Chief Executive Officer of Aptose. "The executed CRADA will facilitate our collaboration with NCI on clinical studies of novel-novel combinations with early phase II signal finding endpoints in AML and MDS. Tuspetinib will provide the NCI and AML/MDS patients with an investigational agent that can be used to treat a broad spectrum of AML/MDS populations, including those among the most genetically challenging."

December 9, 2024

Aptose Clinical Data Featured in Poster Presentation at the 2024 ASH Annual Meeting Support Tuspetinib Triple Drug Therapy for Newly Diagnosed AML

- *TUS+VEN+AZA Triplet Frontline Therapy in Newly Diagnosed AML Patients Now Enrolling at U.S. Sites*
- *TUS and TUS+VEN Broadly Active Across AML Populations, with Favorable Safety*
- *TUS-based therapies are active in FLT3 wildtype, representing ~70% of AML patients*
- *TUS Targets VEN Resistance Mechanisms, Enabling TUS+VEN to Achieve Responses in Difficult-to-treat Prior-VEN Failure AML*

SAN DIEGO and TORONTO, Dec. 09, 2024 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ: APTO, TSX: APS), a clinical-stage precision oncology company developing highly differentiated targeted agents to treat hematologic malignancies, today featured a wealth of clinical data for Aptose's lead compound tuspetinib (TUS) in a poster presentation at the 66th American Society of Hematology (ASH) Annual Meeting in San Diego.

December 12, 2024

Aptose Announces Publication of Preclinical Data in AACR Journal Demonstrating Tuspetinib's Unique Mechanism of Action and Synthetic Lethality on AML Cells When Combined with Venetoclax

- *Peer-reviewed publication details unique TUS mechanism of action*
- *TUS+VEN combination synthetic lethality overcomes resistance to VEN*
- *Tuspetinib prolongs survival in multiple AML models resistant to other drugs*
- *Findings suggest TUS will demonstrate broad antileukemic activity across AML patients*
- *TUS+VEN+AZA Triplet Frontline Therapy in Newly Diagnosed AML Patients Now Enrolling*

SAN DIEGO and TORONTO, Dec. 12, 2024 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ: APTO, TSX: APS), a clinical-stage precision oncology company developing highly differentiated targeted agents to treat hematologic malignancies, today announced the publication of preclinical data for Aptose's lead hematology compound tuspetinib (TUS) in *Cancer Research Communications*, a journal of the American Association for Cancer Research (AACR), available online now (*link*).

The publication, entitled ***"Preclinical development of tuspetinib for the treatment of acute myeloid leukemia,"*** is the first preclinical profiling of tuspetinib, a well-tolerated, once daily, oral kinase inhibitor currently in clinical development for treatment of acute myeloid leukemia (AML). The publication defines TUS activities on select oncogenic signaling targets, demonstrates enhanced activity and safety of TUS when combined with other agents, and illustrates synthetic lethality when combined with venetoclax (VEN). Pharmacokinetic and toxicology studies revealed that TUS is readily absorbed and achieves plasma concentrations sufficient to inhibit the target kinases, it has a plasma half-life that supports once daily dosing, and it demonstrates a favorable safety profile.

December 19, 2024

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Aptose Announces Positive Decision by Nasdaq Hearings Panel

SAN DIEGO and TORONTO, Dec. 19, 2024 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ: APTO, TSX: APS), a clinical-stage precision oncology company developing highly differentiated targeted agents to treat hematologic malignancies, today announced that the Nasdaq Hearings Panel ("Panel") has granted the Company's request for an extension to evidence compliance with all applicable criteria for continued listing on The Nasdaq Stock Market.

On or before March 31, 2025, the Company will be required to demonstrate compliance with NASDAQ Listing Rule 5550(b)(1) requiring the Company to have a minimum of $2.5 million in shareholders' equity (the "Equity Rule") and NASDAQ Listing Rule 5550(a)(2) requiring the Company to have a minimum bid price of $1.00 (the "Minimum Bid Price Rule"). To evidence compliance with the Minimum Bid Price requirement, the Company's common stock must close at or above $1.00 per share for a minimum of 10 consecutive business days by March 31, 2025.

The Nasdaq hearing on the matter was held on November 21, 2024. Since the hearing, Aptose announced the closing of an $8 million public offering, announced the signing of a prestigious clinical development agreement with the National Cancer Institute to develop the Company's lead drug tuspetinib for acute myeloid leukemia (AML) and myelodysplastic syndromes (MDS), and presented clinical data at the American Society of Hematology (ASH) Annual Meeting supporting tuspetinib triplet drug therapy for newly diagnosed AML patients.

January 9, 2025

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Aptose Announces First AML Patients Dosed with Tuspetinib Triplet Frontline Therapy in TUSCANY Trial

TUS+VEN+AZA triplet has potential as frontline therapy to treat large, mutationally diverse populations of AML

SAN DIEGO and TORONTO, Jan. 09, 2025 (GLOBE NEWSWIRE) -- Aptose Biosciences Inc. ("Aptose" or the "Company") (NASDAQ: APTO, TSX: APS), a clinical-stage precision oncology company, today announced dosing the first set of patients in the TUSCANY Phase 1/2 study with tuspetinib (TUS) in combination with venetoclax (VEN) and azacitidine (AZA) as a frontline triple drug combination (triplet) therapy for patients newly diagnosed with acute myeloid leukemia, or AML.

Tuspetinib based TUS+VEN+AZA triplet therapy is being advanced in the TUSCANY Phase 1/2 trial with the goal of creating an improved frontline therapy for newly diagnosed AML patients that is active across diverse AML populations, durable, and well tolerated. Earlier APTIVATE trials of TUS as a single agent and in combination as TUS+VEN demonstrated favorable safety and broad activity in diverse relapsed or refractory (R/R) AML populations that went beyond the more prognostically favorable NPM1 and IDH mutant subgroups. Responses to TUS were also observed in those with prior-VEN and prior-FLT3 inhibitor (FLT3i) therapies, those with highly adverse TP53 and RAS mutations, and those with mutated or unmutated (wildtype) FLT3 genes. Tuspetinib is a convenient once daily oral agent, and the TUS+VEN+AZA triplet has the potential to treat the larger AML population in a mutation agnostic manner, not just narrow subpopulations.

"We're excited that our first several patients on the TUSCANY trial have received TUS+VEN+AZA," said Rafael Bejar, MD, PhD, Aptose's Chief Medical Officer. "TUS+VEN+AZA triplet therapy holds the promise of delivering high response rates and longer survival to newly diagnosed AML patients, while avoiding toxicities seen with other agents, thereby broadening the application of triplet therapy to more AML patients, including those with adverse disease features."

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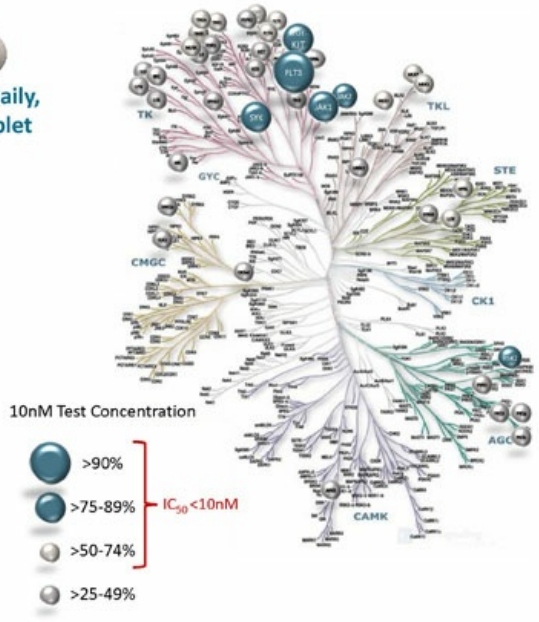
Tuspetinib Kinase Inhibition Profile – Unique Target Profile

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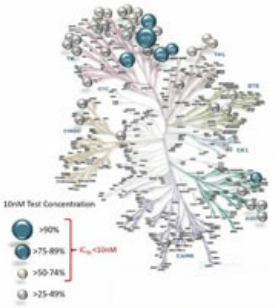
TUS Targets Known VEN-Resistance Mechanisms and May Minimize Drug Resistance

Tuspetinib:

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



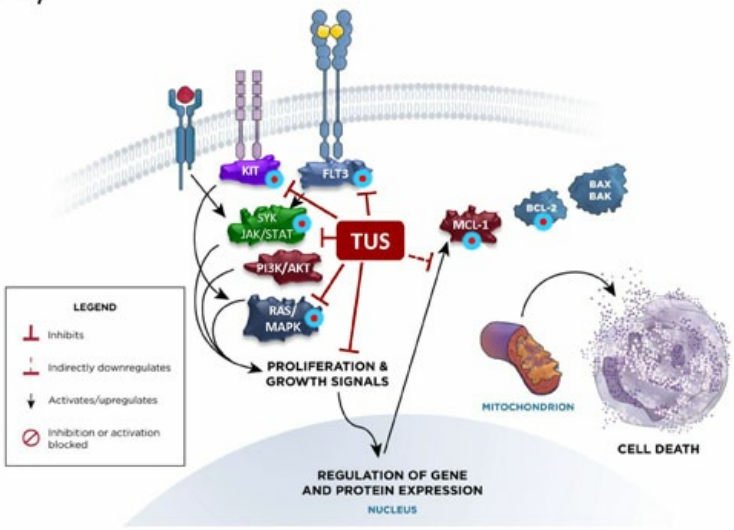
ESH EUROPEAN SCHOOL OF HAEMATOLOGY

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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AML Patient Journey | Frontline (1L) Therapy | Standard-of-Care (SOC)

Annual new cases in U.S. ≈ 21,000 | **Majority patients age >65** Ref. 2
Annual deaths in U.S. ≈ 11,200 | **5-yr survival for age >65 ≈ 9%**

Age[2]	5-year survival rate
Children < 14	65-70%
Ages 15 to 34	52%
Ages 35 to 54	37%
Ages 55 to 64	20%
Ages 65 to 74	9%

- **Need an Improved Frontline Therapy**
- **Drives More Newly Diagnosed AML Patients into Complete Responses (CR)**
- **Keeps the Patients in Complete Responses (CR) Longer and Extends Survival**

Newly Diagnosed AML

Patients "Fit" for High Dose Chemotherapy → Intensive Chemotherapy (7+3)

Cytarabine + anthracycline IV for 7d+3d, resp.
Only 30-50% patients "Fit" ; Many relapse[3]

Intensive Chemotherapy (7+3) → **Therapeutic Failure Survival: Weeks to Few Months**

Intensive Chemotherapy (7+3) → Complete Response → HSCT → **Relapse Survival: Weeks to Few Months**

Patients "Unfit" for High Dose Chemotherapy → Low Intensity Therapy (VEN + AZA)

Low Intensity Therapy (VEN + AZA) → **Therapeutic Failure Survival: Weeks to Few Months**

Low Intensity Therapy (VEN + AZA) → Complete Response → HSCT → **Relapse Survival: Weeks to Few Months**

CR/CRi = 66%, mOS = 14.7 months; <25% alive at 3-years[4]
Mutated FLT3, RAS, TP53 have poorer responses/outcomes

Palliative Care Hospice

5-year survival <10% for age >70[1] ;
Most survive <1 year

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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

- 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) into Newly Diagnosed AML to Improve Patient Response and Survival Outcomes

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

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Completed TUS Single Agent and TUS+VEN Doublet to Prepare for Triplet in 1L Therapy

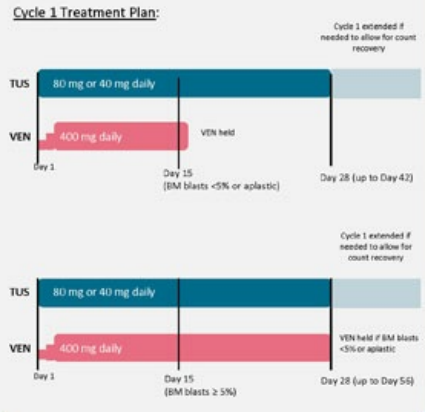
Treated AML Patients Who Failed Prior Therapies (R/R) with TUS and TUS+VEN

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)



Findings from TUS Single Agent Study & TUS+VEN Doublet Study

TUS Single Agent	
Thorough **Dose Exploration**	√
Demonstrated **Responses**	√
Demonstrated **Safety**	√
Orphan Drug Designation	√
Fast Track Status	√
TUS+VEN	
Characterize **Safety** of TUS+VEN	√
Characterize **PK** of TUS and VEN	√

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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

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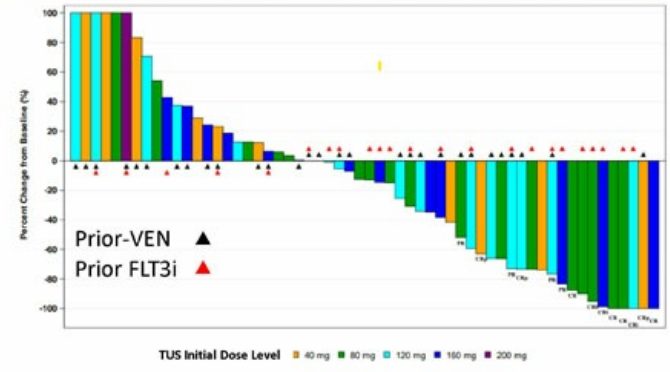
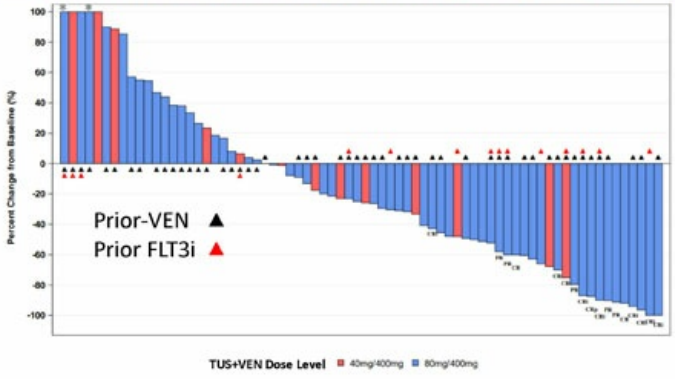
TUS and TUS+VEN : Bone Marrow Blast Reductions and Responses in R/R AML Patients

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 hydoxyurea within 7 days prior to the lowest marrow blast value
Data cut Nov 05, 2024

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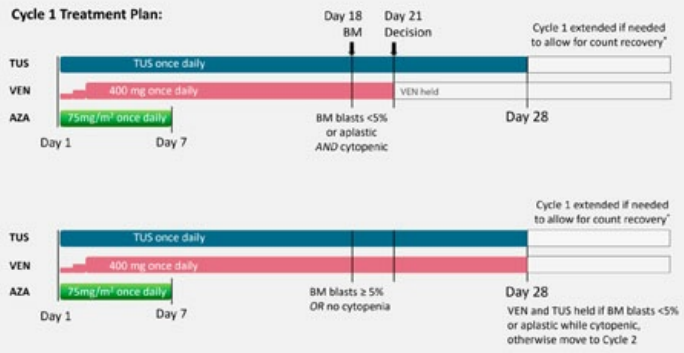
TUS+VEN+AZA Triplet in Newly Diagnosed AML Patients : TUSCANY Trial Ongoing

Patient Populations	Approx. 18-26 Pts Total | 50% FLT3-MUT | <20% TP53+/CK
Dose Characterization	Demonstrate TUS is Highly Active and May Avoid SOC Dose Reductions
Goals of Trial	Safety, CR rate, MRD negativity and OS across AML subtypes ($FLT3^{MUT/WT}$, $TP53^{MUT}$, RAS^{MUT})

Tuspetinib Frontline Triplet Opportunities

- ***FLT3*** ^{WT} **(70% of cases)** Most Common AML
  - Only combination being developed for the FLT3 ^{WT} population
- ***FLT3*** ^{MUT} **(30% of cases)** Intermediate-Risk AML
  - Potential to increase CR rates and survival of the $FLT3^{MUT}$ population
- **TP53** ^{MUT}, **RAS/MAPK** ^{MUT} High-Risk AML
  - Broad activity across adverse genetic subgroups
  - Groups with greatest unmet medical needs
- Expect ***Safer*** and ***Broader*** therapy than other triplets

TUS+VEN+AZA Triplet Cycle 1 Treatment Plan



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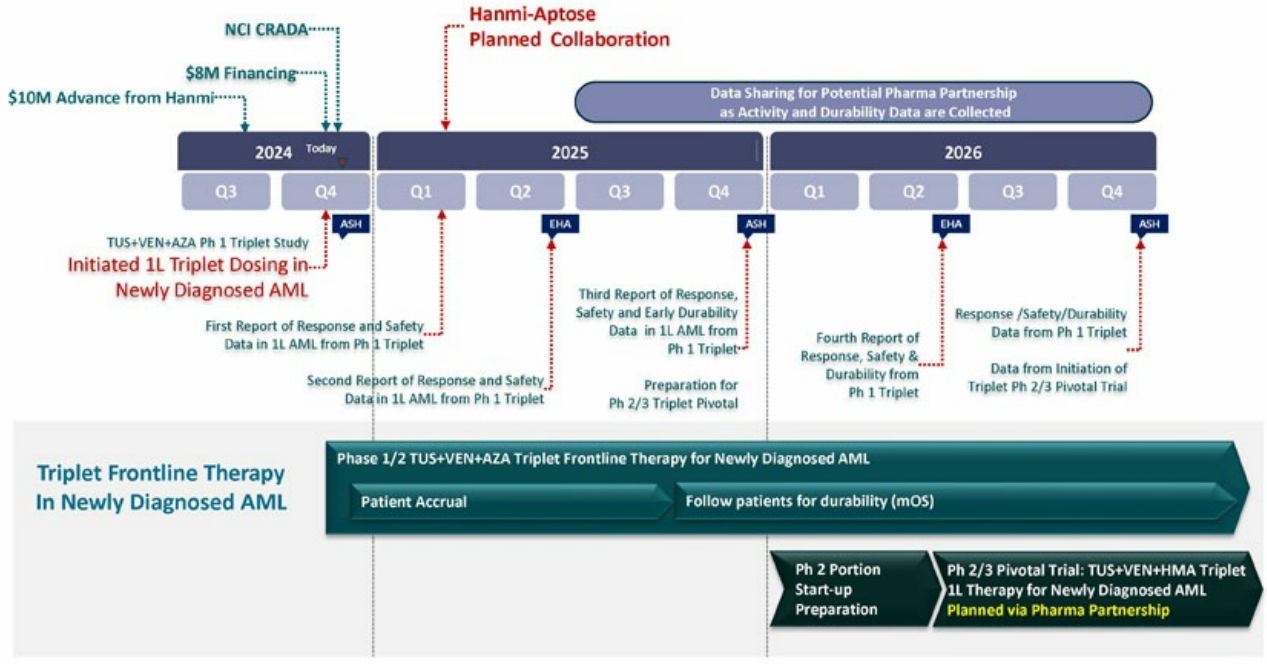
Timeline: Financings, Clinical Trials, and Milestones



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Investment Thesis: Multiple Clinical Data Forthcoming and Hanmi Collaboration Derisks Investment

Market Summary

- Market Cap $14M
- 52-Week range $0.13 to $2.60
- Avg Volume 6.6 million shares

2024 Financing Activity

- $10M Hanmi Advance (Debt) Aug. 2024
- $8M Financing Nov. 2024
- $4.4M HCW – Armistice June 2024
  - Dec 2024 all remaining C/S sold

Capital Structure

- Common Shares O/S 60,181,183
- Warrants 37,886,491
  - Strike price range $0.22 to $2.14
  - Weighted average $0.76
- $10M Debt
  - Forgivable against upfront payment on Hanmi-Aptose Collaboration

Value vs Opportunity: Recent BD Deals in AML Space

Kura Oncology & Kyowa Kirin singed a $1.5B Global Collaboration to develop Ziftomenib Nov 2024

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Investment Thesis

Hanmi Collaboration Reduces Investment Risk

- The Hanmi TUS collaboration *(expected Q1/2025)* will provide significant capital to fund the TUS Triplet Study
- Hanmi's advance of $10M will be offset against the collaboration's upfront payment

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 Could Improve on Triplet Design

- TUS has broad activity on both subtypes:
  - $FLT3^{MUT}$ (30% of AML cases)
  - $FLT3^{WT}$ (70% of AML cases)
- KOLs support TUS as the ideal 3rd agent for 1L triplet
  - Excellent safety profile
  - May minimize resistance to VEN (Venetoclax)

Completed and 2025 Milestones

2024 Accomplishments

- √ Completed $10 million from Hanmi as Advance on Collaboration
- √ Completed $8 million S-1 financing
- √ Executed validating NCI MyeloMATCH for tuspetinib in AML/MDS
- √ Initiated enrollment to 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

- Hanmi/Aptose Collaboration expected Q1-2025
- Enroll two dose cohorts in TUS+VEN+AZA 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

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

Aptose Disclosure

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Thank you

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