Cullinan Therapeutics to Showcase New Data Demonstrating Compelling Clinical Activity for CLN-049, a Novel FLT3xCD3 T Cell Engager, in AML Patients in an Oral Presentation at the 67th ASH Annual Meeting

November 3, 2025

CLN-049 demonstrated anti-leukemic activity, including multiple complete responses, in a heavily pretreated population of patients with r/r AML, regardless of FLT3 mutational status

~30% CRc rate observed at clinically active target doses; initial dose escalation results in 40 patients indicate a manageable safety profile across all doses assessed

Company to host in-person event on Monday, December 8, 2025, at 8:00 p.m. ET

CAMBRIDGE, Mass., Nov. 03, 2025 (GLOBE NEWSWIRE) -- Cullinan Therapeutics, Inc. (Nasdaq: CGEM), a clinical-stage biopharmaceutical company accelerating potential first- or best-in-class, high-impact therapies in autoimmune diseases and cancer, today announced new clinical data from its Phase 1 study of CLN-049, a novel, investigational FLT3xCD3 bispecific T cell engager, in patients with relapsed/refractory (r/r) acute myeloid leukemia (AML) and myelodysplastic syndrome (MDS). Updated data will be presented at the 67th American Society of Hematology (ASH) Annual Meeting and Exposition, being held December 6-9 in Orlando, Florida, as an oral presentation on Monday, December 8.

“AML is among the largest hematology indications for which a T cell engager is not available, so we are pleased to share new data for CLN-049 that demonstrate compelling potential for patients with relapsed or refractory AML, a population that urgently needs new treatment options,” said Jeffrey Jones, MD, MBA, Chief Medical Officer, Cullinan Therapeutics. “As detailed in the abstract, initial results from our Phase 1 study showed clinically meaningful anti-leukemic activity, including complete responses, with a composite complete response (CRc) rate of 31% at the highest dose level explored thus far. Importantly, responses were also observed regardless of baseline genetic risk, even among patients with *TP53*-mutated AML where prognosis is notably poor. In the broad population of patients with relapsed or refractory AML and MDS assessed, the safety profile was manageable. These initial results demonstrate CLN-049’s broad potential to offer a potent, flexible, and differentiated therapeutic strategy. We look forward to sharing updated data at ASH.”

“AML remains a devastating and poor prognosis disease with fragmented treatment options, particularly for relapsed or refractory patients,” said Mohammad Maher Abdul Hay, MD, Director, Clinical Leukemia Program, Perlmutter Cancer Center, and Director, Blood & Marrow Transplantation and Cellular Therapy Program, NYU Langone Health. “CLN-049 has the potential to be widely applicable to a broad population because it targets the extracellular domain of both mutated and non-mutated FLT3, expressed on malignant blasts in more than 80% of patients with AML. These initial results point to the potential of a FLT3-directed T cell engager to expand treatment options for patients through a unique approach, and are especially encouraging from the dose escalation phase of an ongoing study.”

Oral Presentation Details

Title: Preliminary Anti-leukemia Activity from A Phase 1 Study of CLN-049, a Novel Anti-FLT3 x Anti-CD3 Bispecific T-Cell Engager, in Relapsed/Refractory (R/R) Acute Myeloid Leukemia (AML) and Myelodysplastic Syndrome (MDS)
Session Name: 616. Acute Myeloid Leukemias: Investigational Drug and Cellular Therapies: Menin Inhibitors and FLT3 Inhibitors in AML
Session Date: December 8, 2025
Session Time: 10:30 a.m.-12:00 p.m. ET
Room: OCCC - Chapin Theater (320)
Publication Number: 768

Efficacy Results

As of the June 2025 data cutoff, 40 patients (34 AML, 6 MDS) were enrolled without regard to FLT3 cell surface expression across 7 cohorts (target dose range 1.5-12 µg/kg), and 29 patients with AML were efficacy evaluable (≥1 response assessment). Patients with AML had received a median of 2 prior therapies (range: 1-8).

For AML, response was assessed using ELN 2022 criteria. Efficacy endpoints include complete response (CR) rate, composite complete response (CRc) rate (CR/CRi/CRh), and overall response rate (ORR) (CRc + MLFS + PR).

CLN-049 achieved promising anti-leukemic activity in this heavily pretreated AML population:

- **Anti-leukemic activity** was observed at target doses ≥6 µg/kg (n=23, all AML), with a CRc rate of 30%, and ORR of 57%.
- At the **highest target dose** studied thus far of 12 µg/kg (n=13), **CRc rate** was 31% and **ORR** was 69%.
- In 9/23 patients achieving bone marrow blasts <5%, 33% (n=3) patients were **MRD negative** by flow cytometry; relapse was not observed in MRD-negative patients, and 1 patient has remained on study for >6 months.
- Responses were observed in patients with AML **regardless of baseline genetic risk**. Notably, among 5 patients with ***TP53*-mutated** AML treated at 12 µg/kg, 4 responses (2 CRh, 2 MLFS) were observed.

Dose escalation continues in this ongoing Phase 1 study.

Safety Results

As of the June 2025 data cutoff, the data indicate a manageable safety profile in a broad population of patients with r/r AML and MDS (n=40):

- The most common treatment-emergent adverse events (TEAEs) included cytokine release syndrome (CRS) (40%), infusion-related reaction (35%), and febrile neutropenia, pneumonia, stomatitis, white blood cell count decrease (17.5% each).
- All CRS events were limited to Grade 1 or 2; the majority occurred after a step-up dose (SUD) or target dose 1. One case of Grade 1 ICANS was reported in association with Grade 2 CRS after a 6 µg/kg SUD. Neither CRS nor ICANS led to treatment discontinuation.
- Grade ≥3 TEAEs occurring in >10% of patients included febrile neutropenia, white blood cell count decrease (17.5% each), and pneumonia (12.5%).

Live and Virtual Investor Event

Cullinan Therapeutics will host an in-person event for analysts and institutional investors on Monday, December 8, at 8:00 p.m. ET, during which David Sallman, MD, Associate Member, Myeloid Section Head, Moffitt Cancer Center & Research Institute, will participate in a discussion of the CLN-049 data shared at the 2025 ASH Annual Meeting and Exposition with members of Cullinan Therapeutics management. Participants from Cullinan Therapeutics include Nadim Ahmed, Chief Executive Officer, and Jeffrey Jones, MD, MBA, Chief Medical Officer.

Investors and analysts are invited to register to attend in person by emailing Nick Smith, Head of Investor Relations (nsmith@cullinantx.com). A webcast will be available via the events page of the Company's investor relations website at https://investors.cullinantherapeutics.com/events.

About CLN-049

CLN-049 is a novel, investigational FLT3xCD3 bispecific T cell engager. CLN-049 is designed to target FLT3-expressing leukemia cells, offering a new immunotherapeutic approach for treating acute myeloid leukemia (AML) and myelodysplastic syndrome (MDS). CLN-049 binds to both mutated and non-mutated FLT3, allowing targeted action regardless of FLT3 mutational status, making the investigational treatment widely applicable to a broad population.

CLN-049 is being studied in a Phase 1, open-label, multicenter, first-in-human, multiple ascending dose study evaluating safety, tolerability, pharmacokinetics (PK), pharmacodynamics, and preliminary efficacy of intravenously (IV) administered CLN-049 in patients with relapsed/refractory AML or MDS (NCT05143996) and in a parallel Phase 1, open-label, dose escalation and dose expansion study for the treatment of patients with AML with measurable residual disease (MRD) (EUCT 2023-506572-27-00).

About Acute Myeloid Leukemia

Acute myeloid leukemia (AML) is a cancer of the blood and bone marrow and the most common form of acute leukemia in adults.[1,2] It is characterized by the rapid growth of abnormal white blood cells that crowd out healthy cells, leading to infections, fatigue, and bleeding.[3] Each year in the U.S., approximately 22,000 people are diagnosed with AML, and about half as many lives are lost to the disease.[4] Globally, AML affects an estimated 144,000 people annually, with approximately 130,000 deaths.[5]

Despite recent advances, outcomes for patients with AML remain poor, particularly for those with relapsed or refractory disease, where five-year survival is 10% or less.[4,6] Patients with high-risk genetic features, such as complex karyotype or TP53 mutations, face especially limited options.[7,8] Intensive treatments like chemotherapy and stem cell transplantation may be inaccessible for many older patients due to severe side effects.[8] Currently, there are no approved immunotherapies for AML, underscoring the urgent need for novel therapeutic approaches that can improve outcomes for patients and their families facing this life-threatening disease.

About Cullinan Therapeutics

Cullinan Therapeutics, Inc. (Nasdaq: CGEM) is a biopharmaceutical company developing potential first- or best-in-class, high-impact therapies for autoimmune diseases and cancer. Cullinan pursues promising therapeutic targets while leveraging core expertise in T cell engagers, which are established in oncology and are now advancing into autoimmune diseases. With a clinical-stage pipeline built on a rigorous scientific approach and purposeful innovation, Cullinan is advancing its mission to deliver new standards of care for patients. Learn more about Cullinan at https://cullinantherapeutics.com/, and follow Cullinan on LinkedIn and X.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, express or implied statements regarding the company's beliefs and expectations regarding: our clinical developments plans and timelines for CLN-049, the clinical and therapeutic potential of CLN-049, our plans regarding future data presentations, and other statements that are not historical facts. The words "believe," "continue," "could," "estimate," "expect," "intends," "may," "plan," "potential," "project," "pursue," "will," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

Any forward-looking statements in this press release are based on management's current expectations and beliefs of future events and are subject to known and unknown risks and uncertainties that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These risks include, but are not limited to, the following: uncertainty regarding the timing and results of regulatory submissions; the risk that any NDAs, INDs or other global regulatory submissions we may file with the United States Food and Drug Administration or other global regulatory agencies are not cleared or approved on our expected timelines, or at all; the success of our clinical trials and preclinical studies; the risks related to our ability to protect and maintain our intellectual property position; the risks related to manufacturing, supply, and distribution of our product candidates; the risk that any one or more of our product candidates, including those that are co-developed, will not be successfully developed and commercialized; the risk that the results of preclinical studies or clinical studies will not be predictive of future results in connection with future studies; and the success of any collaboration, partnership, license or similar agreements. These and other important risks and uncertainties discussed in our filings with the Securities and Exchange Commission, including under the caption "Risk Factors" in our most recent Annual Report on Form 10-K and subsequent filings with the SEC, could cause actual results to differ materially from those indicated by the forward-looking statements made in this press release. While we may elect to update such forward-looking statements at some point in the future, we disclaim any obligation to do so, even if subsequent events cause our views to change, except to the extent required by law. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date of this press release. Moreover, except as required by law, neither the company nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements included in this press release. Any forward-looking statement included in this press release speaks only as of the date on which it was made.

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