Cullinan Therapeutics Showcases Compelling Clinical Data in AML for CLN-049, Novel FLT3xCD3 T Cell Engager, in Oral Presentation at the 67th ASH Meeting

December 8, 2025

CLN-049 monotherapy demonstrates promising efficacy, including multiple complete responses and encouraging response durability, in a heavily pretreated all-comer population of patients with R/R AML

31% CR/CRh rate observed at the highest target dose tested to date; initial dose escalation results in 45 patients demonstrate a favorable safety profile across all doses assessed

CLN-049 recently granted Fast Track designation by the U.S. FDA

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

CAMBRIDGE, Mass., Dec. 08, 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 shared updated 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). These data will be presented at the 67th American Society of Hematology (ASH) Annual Meeting and Exposition, being held December 6-9, as an oral presentation on Monday, December 8, at 10:45 a.m. ET.

“These promising clinical data, including multiple complete responses and encouraging initial data for response durability, demonstrate the potential for CLN-049 to expand treatment options for a broad population of people with AML, including patients with *TP53*-mutated AML who currently face a particularly poor prognosis,” said Jeffrey Jones, MD, MBA, Chief Medical Officer, Cullinan Therapeutics. “Coupled with recent Fast Track designation from the FDA, which underscores the promise of CLN-049 to help patients with AML, Cullinan is committed to rapidly advancing this potential new treatment option for a devastating disease.”

“Despite advances in select settings, AML remains an aggressive blood cancer with limited options for durable response, particularly for patients with relapsed or refractory disease,” 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 represents a novel approach to target AML as it binds to the extracellular domain of FLT3, both wildtype and mutated forms, redirecting a patient’s own T cells to recognize and eliminate leukemic cells. FLT3 is a particularly promising target for this therapeutic approach since it is expressed by AML blasts in more than 80% of patients. The compelling early efficacy including durability data shared today show the potential impact a FLT3-targeted T cell engager could have for AML patients in need of new options.”

Efficacy Results

As of the August 2025 data cutoff, 45 patients (39 AML, 3 MDS/AML, and 3 MDS) were enrolled without regard to FLT3 cell surface expression across 8 cohorts (target dose range 1.5-12 µg/kg). 41 patients across 7 cohorts were efficacy evaluable, having reached at least one on-treatment 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/complete remission with incomplete recovery (CRi)/complete remission with partial hematologic recovery (CRh)).

Promising monotherapy activity was observed in heavily pretreated patients with AML at clinically active target doses:

- At the highest target dose studied thus far of 12 µg/kg (n=16), CR/CRh rate was 31% (5/16) and CRc rate was 31% (5/16).
- Anti-leukemic activity was observed at target doses ≥6 µg/kg (n=32), with a CR/CRh rate of 25% (8/32) and a CRc rate of 28% (9/32).

Data show promising initial durability in responders, including measurable residual disease (MRD) negativity:

- At efficacious doses (≥6 µg/kg), in the patients achieving a CR/CRh response, 63% (5/8) of patients had a duration of response of >16 weeks and 2 additional patients were able to proceed to allogeneic hematopoietic stem cell transplant.

- In 10/32 patients achieving bone marrow blasts <5% at a target dose of ≥6 µg/kg, 30% (n=3) patients were MRD negative by flow cytometry, and 1 MRD-negative patient has had an ongoing response for >36 weeks.

Encouraging responses were observed in difficult-to-treat AML patients with high-risk genetic features:

- Notably, among the 8 patients with *TP53*-mutated AML treated at 12 µg/kg, 50% (4/8) of patients achieved a CR/CRh response: 3 patients achieved a CRh response and 1 patient achieved a CR; 3/4 patients with CR/CRh had responses that were durable >16 weeks.
- Responses were observed in patients with AML independent of baseline FLT3 expression and regardless of baseline genetic risk.

Safety Results

As of the August 2025 data cutoff, the data demonstrate a favorable safety profile in a broad population of patients with R/R AML and MDS (N=45):

- The most common treatment-emergent adverse events (TEAEs) included cytokine release syndrome (CRS) (35.6%), infusion-related reaction (33.3%), febrile neutropenia (20.0%), white blood cell count decrease and pneumonia (17.8% each), diarrhea, hypomagnesemia, stomatitis, and hypokalemia (15.6% each).
- Nearly all CRS events limited to Grade 1 or 2, and the majority occurred after a step-up dose (SUD) or target dose 1. No Grade 3 CRS was observed with two step-up doses. CRS did not lead to treatment discontinuation.
- Grade ≥3 TEAEs occurring in >10% of patients included febrile neutropenia (20.0%), white blood cell count decrease (17.8%), pneumonia and neutrophil count decrease (11.1% each).

CLN-049 development will proceed under FDA Fast Track designation. Dose escalation continues in this ongoing Phase 1 study, with expansion cohorts planned in early 2026.

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).

CLN-049 has received Fast Track designation from the U.S. FDA for the treatment of relapsed/refractory AML.

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 approved or cleared 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; the effect of changes in global economic conditions, including uncertainties related to international trade policies, tariffs and supply chain dynamics on our business and operations; 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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