Enliven Therapeutics Announces Updated Positive Data from Phase 1 Clinical Trial of ELVN-001 in CML at EHA 2025 Congress

June 13, 2025

Reported cumulative MMR rate of 47% (25 of 53) by 24 weeks with 32% (13 of 41) of patients achieving MMR by 24 weeks, which continues to compare favorably to precedent Phase 1 trials of approved BCR::ABL1 TKIs

ELVN-001 continues to demonstrate a favorable safety and tolerability profile across all dose levels with 90 patients enrolled and a median treatment duration of ~29 weeks at cutoff

Enliven will host a webcast and conference call today, June 13, at 1:30 p.m. ET

BOULDER, Colo., June 13, 2025 /PRNewswire/ -- Enliven Therapeutics, Inc. (Enliven or the Company) (Nasdaq: ELVN), a clinical-stage biopharmaceutical company focused on the discovery and development of small molecule therapeutics, today announced updated, positive data from the Phase 1 ENABLE clinical trial evaluating ELVN-001 in patients with chronic myeloid leukemia (CML) in an oral presentation at the European Hematology Association (EHA) 2025 Congress taking place June 12-15 in Milan, Italy, and virtually.

"Thanks to the success of tyrosine kinase inhibitors (TKIs), patients with CML now have a near-normal life expectancy. As a result, treatment goals have evolved beyond response and survival to also prioritize quality of life and tolerability," said Andreas Hochhaus, Professor of Internal Medicine, Hematology and Oncology and Head of the Department of Hematology and Medical Oncology at the Jena University Hospital, Germany. "However, significant unmet needs remain, particularly related to treatment resistance and intolerance, across all lines of therapy. The data from ELVN-001 are encouraging, showing an efficacy, safety and tolerability profile that compare favorably to approved BCR::ABL1 inhibitors, despite being studied in a more heavily pretreated population. I look forward to future data, which could support ELVN-001 as a promising new option for patients who need better long-term disease management."

"We are highly encouraged by the ELVN-001 data, specifically as it relates to the consistency of the cumulative and achieved MMR rates as the Phase 1 trial progresses, with more evaluable patients and longer duration of treatment," said Helen Collins, M.D., Chief Medical Officer of Enliven. "While MMR is the efficacy endpoint in CML, safety and tolerability are equally critical given the chronic nature of the disease. ELVN-001 was reported to be well tolerated across all evaluated doses and had low levels of dose reductions and discontinuations, which we believe is the key sign of a favorable safety and tolerability profile. We believe ELVN-001 has the potential to offer best-in-class efficacy and tolerability, which are key attributes for people living with CML. We look forward to sharing additional data in the future."

ELVN-001 is a potent, highly selective, potentially best-in-class small molecule kinase inhibitor designed to specifically target the BCR::ABL gene fusion, the oncogenic driver for patients with CML.

ELVN-001 Data Highlights

Patient Demographics

- As of the cutoff date of April 28, 2025, 90 patients have been enrolled in the ongoing Phase 1 trial across dose levels ranging from 10 mg once a day (QD) to 80 mg twice a day (BID).
- The vast majority of patients (80%) remain on study with a median treatment duration of ~29 weeks.
- Patients enrolled were heavily pretreated:
    - 67% of patients received three or more unique prior TKIs, including 58% of patients who received prior asciminib and 43% of patients who received prior ponatinib.
    - 72% of patients had discontinued their prior TKI due to lack of efficacy.

Encouraging ELVN-001 Efficacy Data by 24 Weeks

- Of the enrolled patients, 53 with typical BCR::ABL1 transcripts and without T315I mutations were evaluable for major molecular response (MMR) by 24 weeks.
- 25 of 53 (47%) evaluable patients were in MMR by 24 weeks, with 13 of 41 (32%) achieving and 12 of 12 (100%) maintaining MMR.
    - Of those resistant to their last TKI, 14 of 34 (41%) were in MMR by 24 weeks.
    - Of those previously treated with asciminib or ponatinib, 12 of 34 (35%) were in MMR by 24 weeks.
    - All patients who achieved or maintained MMR were still in MMR at the time of data cutoff.
- These data continued to compare favorably to precedent Phase 1 MMRs for approved BCR::ABL1 TKIs, particularly given the more heavily pretreated patient population in the ELVN-001 clinical trial.
    - Specifically, the achieved MMR rate by 24 weeks of 32% compares favorably with historical data from less heavily pretreated patients receiving asciminib, which showed achieved MMR rates of 24% in the Phase 1 trial and 25% in the ASCEMBL Phase 3 trial.

ELVN-001's Safety Profile Consistent with High Selectivity for ABL1

- ELVN-001 remains well-tolerated across all evaluated doses.
- Only 3.4% (3 of 87) of patients had dose reductions due to treatment-emergent adverse events (TEAEs) and 4.6% (4 of 87) of patients discontinued due to TEAEs.
- The majority of TEAEs were low frequency and low grade, and the hematologic TEAE profile was similar to or better than the approved TKIs.
- Only 2.3% (2 of 87) of patients experienced ≥ Grade 3 non-hematologic treatment-related AEs.
- No evidence to date of enhanced cardiovascular toxicity and no treatment-related arterial occlusive events (AOEs).
- The maximum tolerated dose was not reached, and no exposure-toxicity relationship was observed.

ELVN-001 Pharmacokinetic (PK) Profile

- The PK profile supports once-daily dosing with flexible administration requirements, including the ability to take with or without food.
- There is low potential for drug-drug interactions, an important advantage given that the average CML patient takes approximately five concurrent medications.

"We believe there remains significant opportunity to improve upon existing therapies," said Sam Kintz, Co-founder and Chief Executive Officer of Enliven. "Based on today's encouraging Phase 1 update, we believe ELVN-001 has the potential to compete across all lines of therapy. We believe that precedent registrational trials in CML provide a roadmap for the regulatory pathway for ELVN-001, and the use of biomarker-based endpoints, like MMR, enables smaller, faster studies. Importantly, historical Phase 1 data in late-line CML trials have predicted success in subsequent pivotal trials. Building off this exciting update, we expect to initiate our first head-to-head Phase 3 pivotal trial in 2026 and remain confident in ELVN-001 and its potential positioning in the future in the CML treatment paradigm."

The oral presentation titled: "ENABLE: A Phase 1a/1b Study of ELVN-001, a selective active site inhibitor of BCR::ABL1, in patients with previously treated CML" will be presented by Andreas Hochhaus, Professor of Internal Medicine, Hematology and Oncology and Head of the Department of Hematology and Medical Oncology at the Jena University Hospital, Germany later today. A copy of the presentation will be available on the "Program Presentations & Publications" section of the Company's website at www.enliventherapeutics.com.

Webcast and Conference Call Information
Enliven will host a live webcast and conference call today at 1:30 p.m. ET / 7:30 p.m. CEST. To participate in the live event, please register using this link. Following registration, participants will have access to dial in numbers and a unique passcode should they prefer to participate by phone. The event and accompanying slides can also be accessed by visiting the investor relations section of the Company's website at https://ir.enliventherapeutics.com. An archived webcast will be available on the Company's website following the event.

About the ENABLE Trial
The ENABLE study (NCT05304377) is a Phase 1 study of ELVN-001 in patients with previously treated CML. The trial is currently in Phase 1a/1b development and is a dose escalation and expansion trial designed to evaluate safety and tolerability and to determine the recommended dose for further clinical evaluation of ELVN-001 in patients with CML with and without T315I mutations that is relapsed, refractory or intolerant to TKIs. Secondary endpoints include pharmacokinetics, MMR by central quantitative reverse transcriptase polymerase chain reaction, duration of MMR, BCR::ABL1 transcript levels and complete hematologic response. Enliven is preparing for the potential start of a pivotal trial for ELVN-001 in 2026.

About ELVN-001
ELVN-001 is a potent, highly selective, potentially best-in-class small molecule kinase inhibitor designed to specifically target the BCR::ABL gene fusion, the oncogenic driver for patients with chronic myeloid leukemia. As a highly selective active site inhibitor, ELVN-001 has a mechanism of action that is complementary to allosteric BCR::ABL1 inhibitors, which may play an increasingly important role in the standard of care. ELVN-001 was also designed to have activity against the T315I mutation, the most common BCR::ABL1 mutation, which confers resistance to nearly all approved TKIs, as well as activity against mutations known to confer resistance to allosteric BCR::ABL1 inhibitors.

About Enliven Therapeutics
Enliven is a clinical-stage biopharmaceutical company focused on the discovery and development of small molecule therapeutics to help people not only live longer, but live better. Enliven aims to address existing and emerging unmet needs with a precision oncology approach that improves survival and enhances overall well-being. Enliven's discovery process combines deep insights in clinically validated biological targets and differentiated chemistry to design potentially first-in-class or best-in-class therapies. Enliven is based in Boulder, Colorado.

Forward-Looking Statements
This press release contains forward-looking statements (including within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended) concerning Enliven and other matters that involve substantial risks and uncertainties. These statements may discuss goals, intentions and expectations as to future plans, trends, events, results of operations and financial condition, or otherwise, based on current beliefs of the management of Enliven, as well as assumptions made by, and information currently available to, management of Enliven. Forward-looking statements generally include statements that are predictive in nature and depend upon or refer to future events or conditions, and include words such as "may," "will," "should," "would," "expect," "anticipate," "plan," "likely," "believe," "estimate," "project," "intend," and other similar expressions or the negative or plural of these words, or other similar expressions that are predictions or indicate future events or prospects, although not all forward-looking statements contain these words. Statements that are not historical facts are forward-looking statements. Forward-looking statements in this press release include, but are not limited to, statements regarding the potential of, and plans regarding, market opportunities, and expectations regarding Enliven's programs, including ELVN-001; expected milestones for ELVN-001, including the potential timing for a start of a pivotal trial for ELVN-001; and statements by Enliven's Chief Executive Officer, Chief Medical Officer and the Professor of Internal Medicine, Hematology and Oncology and Head of the Department of Hematology and Medical Oncology at the Jena University Hospital, Germany. Forward-looking statements are based on current beliefs and assumptions that are subject to risks and uncertainties and are not guarantees of future performance. Actual results could differ materially from those contained in any forward-looking statement as a result of various risks and uncertainties,

including, without limitation: the limited operating history of Enliven; the ability to advance product candidates through preclinical and clinical development; the ability to obtain regulatory approval for, and ultimately commercialize or license, or identify and complete strategic alternatives for, product candidates; the outcome of preclinical testing and early clinical trials for product candidates and the potential that the outcome of preclinical testing and early clinical trials may not be predictive of the success of later clinical trials, including extrapolations or predictions regarding the safety and efficacy of ELVN-001 based on comparisons to published results of trials of other products, which may be different when evaluated in head-to-head studies; Enliven's limited resources; the risk of failing to demonstrate safety and efficacy of product candidates; Enliven's limited experience as a company in designing and conducting clinical trials; the potential for interim, topline, and preliminary data from Enliven's preclinical studies and clinical trials to materially change from the final data; potential delays or difficulties in the enrollment or maintenance of patients in clinical trials; developments relating to Enliven's competitors and its industry, including competing product candidates and therapies; the potential market opportunity for any of Enliven's programs; the decision to develop or seek strategic collaborations to develop Enliven's current or future product candidates in combination with other therapies and the cost of combination therapies; the ability to attract, hire, and retain highly skilled executive officers and employees; the ability of Enliven to protect its intellectual property and proprietary technologies; the scope of any patent protection Enliven obtains or the loss of any of Enliven's patent protection; reliance on third parties, including medical institutions, contract manufacturing organizations, contract research organizations and strategic partners; geo-political developments, general market or macroeconomic conditions; Enliven's ability to obtain additional capital to fund Enliven's general corporate activities and to fund Enliven's research and development; and other risks and uncertainties, including those more fully described in Enliven's filings with the Securities and Exchange Commission (SEC), which may be found in the section titled "Risk Factors" in Enliven's Annual and Quarterly Reports on Form 10-K and 10-Q filed with the SEC and in Enliven's future reports to be filed with the SEC. Except as required by applicable law, Enliven undertakes no obligation to revise or update any forward-looking statement, or to make any other forward-looking statements, whether as a result of new information, future events or otherwise.

Head-to-Head Comparisons

The Company has not performed any head-to-head trials for ELVN-001. As a result, the data referenced in this press release is derived from different clinical trials at different points in time, with differences in trial design and patient populations. As a result, conclusions from cross-trial comparisons cannot be made.

View original content to download multimedia:https://www.prnewswire.com/news-releases/enliven-therapeutics-announces-updated-positive-data-from-phase-1-clinical-trial-of-elvn-001-in-cml-at-eha-2025-congress-302481050.html

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