Johnson&Johnson

NEWS RELEASE

New results for Johnson & Johnson's bleximenib demonstrate promising antileukemic activity in combination with venetoclax and azacitidine for acute myeloid leukemia

2025-06-12

Bleximenib, an investigational selective menin inhibitor, shows potential as combination therapy for the treatment of relapsed or refractory AML and newly diagnosed, intensive chemo-ineligible AML

Phase 1b data show low rate of differentiation syndrome and no cardiac safety signal of QTc prolongation

MILAN, June 12, 2025 /PRNewswire/ -- Johnson & Johnson (NYSE: JNJ) today announced new Phase 1b data showing encouraging antileukemic activity and a promising safety profile for bleximenib (JNJ-75276617) in combination with venetoclax and azacitidine (VEN + AZA) for the treatment of acute myeloid leukemia (AML) harboring KMT2A gene rearrangements (KMT2Ar) or NPM1 gene mutations (NPM1m). The study evaluated patients with newly diagnosed, intensive chemo-ineligible AML and relapsed or refractory AML.[1] The results were featured in an oral presentation at the **2025 European Hematology Association (EHA) Congress** (**S137**).

Even though AML is the most common type of acute leukemia in adults, it has the lowest survival rate and is associated with poor patient outcomes, despite treatment advances to date – especially for patients with KMT2Ar and NPM1m.[2,3,4]

"AML encompasses a spectrum of genetically diverse cancers affecting the bone marrow and blood, which progress rapidly, making it an extremely challenging cancer to treat," said Andrew M. Wei*, MBBS, PhD, Peter MacCallum Cancer Centre, Royal Melbourne Hospital, Walter and Eliza Hall Institute of Medical Research and University of Melbourne, Australia. "These data highlight the potential of this targeted therapy in combination with VEN + AZA for

patients with newly diagnosed AML who are ineligible for intensive chemotherapy or with disease that has relapsed after prior therapy."

The Phase 1b dose-finding study (**NCT05453903**) evaluated 125 patients with relapsed or refractory AML and newly diagnosed, intensive chemo-ineligible AML who harbored KMT2Ar (n=52) or NPM1m (n=73). Bleximenib in combination with VEN + AZA was evaluated across multiple dose levels without step-up dosing. Of the 85 relapsed or refractory patients, 36 percent received one, 42 percent received two and 12 percent received three lines of prior treatment; 47 percent had previously been treated with venetoclax.[1]

The bleximenib data at 100 mg twice a day in combination with VEN + AZA showed higher efficacy and a similar safety profile in comparison to other dose levels. At the recommended Phase 2 dose (RP2D), patients with relapsed or refractory AML achieved an overall response rate (ORR) of 82 percent and a composite complete response (cCR) rate of 59 percent.[1] The newly diagnosed, intensive chemo-ineligible patient population showed an ORR of 90 percent and a cCR rate of 75 percent.[1]

Safety analysis of the study population showed a profile comparable among dose groups, genetic subtypes and disease settings. At the RP2D in combination with VEN+AZA, differentiation syndrome events were reported in two of 49 patients (4 percent). Bleximenib safety data continued to support a lack of QTc prolongation signal, with no events of Grade 3 or higher and only three Grade 1 events (6 percent) at the RP2D.[1] The most common all-grade treatment-emergent adverse events (TEAEs) were nausea (65 percent), thrombocytopenia (61 percent), neutropenia (59 percent) and anemia (49 percent).[1] The most common Grade 3 or higher TEAEs were thrombocytopenia (59 percent), neutropenia (59 percent), and anemia (49 percent).[1]

"Building on our heritage of leadership and innovation in hematologic malignancies, we are committed to delivering transformative treatment options that address the significant unmet needs of patients with acute myeloid leukemia," said Jeffrey Infante, M.D., Vice President of Early Clinical Development and Translational Research at Johnson & Johnson Innovative Medicine. "We continue to explore the potential of this compound as a monotherapy and in combination with standard of care regimens in additional Phase 2 and 3 studies, which are currently enrolling patients."

About Phase 1b Bleximenib Combination Dosing Study

This bleximenib combination trial (NCT05453903) is an ongoing Phase 1b open-label, non-randomized sequential assignment multicenter study to determine the recommended Phase 2 dose (RP2D) and further evaluate the safety and tolerability of bleximenib in combination with VEN + AZA in approximately 200 patients with either newly diagnosed or relapsed/refractory acute myeloid leukemia harboring KMT2A or NPM1 alterations.

Patients received VEN + AZA in combination with oral bleximenib twice daily at 15–150 mg (relapsed/refractory) or 30–100 mg (newly diagnosed) over a 28-day cycle and during count recovery. Bleximenib was started on day 4 without the need for step-up dosing. Primary outcome measures included adverse events and dose-limiting toxicity. Secondary efficacy measures included depletion of leukemic blasts, percentage of patients achieving complete response (CR), and percentage of patients who achieve overall response.

About Bleximenib (JNJ-75276617)

Bleximenib is an investigational oral menin inhibitor being evaluated for the treatment of patients with newly diagnosed and relapsed or refractory AML. It targets a key oncogenic interaction between menin and KMT2A fusion proteins, disrupting a pathway that drives leukemic cell growth in patients with KMT2Ar or NPM1m mutations.

It is currently being investigated in Phase 1, 2, and 3 trials, both as a monotherapy and in combination with AML-directed therapies to further explore its potential in both relapsed or refractory and newly diagnosed AML populations.

About Acute Myeloid Leukemia (AML)

Acute myeloid leukemia is an aggressive, fast-growing blood cancer that originates in the bone marrow and is marked by the uncontrolled proliferation of immature white blood cells known as myeloblasts.[2, 5] These malignant cells crowd out healthy blood-forming cells, leading to complications such as anemia, infections and bleeding.[6] Acute myeloid leukemia progresses rapidly, often requiring immediate treatment after diagnosis.[5] It is the most common type of acute leukemia in adults, with a median age of diagnosis around 70 years.[2]

Despite treatment advances, acute myeloid leukemia remains associated with poor patient outcomes, particularly in older adults or those with high-risk genetic profiles.[7] The five-year survival rate remains the lowest among leukemias, with outcomes especially poor in patients with KMT2Ar or NPM1m where relapse/refractory disease survival can be as short as 2 to 3 months after a second relapse – highlighting a significant unmet medical need.[7]

About Johnson & Johnson

At Johnson & Johnson, we believe health is everything. Our strength in healthcare innovation empowers us to build a world where complex diseases are prevented, treated, and cured, where treatments are smarter and less invasive, and solutions are personal. Through our expertise in Innovative Medicine and MedTech, we are uniquely positioned to innovate across the full spectrum of healthcare solutions today to deliver the breakthroughs of tomorrow, and profoundly impact health for humanity. Learn more at **https://www.jnj.com/** or at **https://www.innovativemedicine.jnj.com.** Follow us at **@JanssenUS** and **@JNJInnovMed**. Janssen Research &

Development, LLC, Janssen Biotech, Inc., and Janssen Global Services, LLC are Johnson & Johnson companies.

Cautions Concerning Forward-Looking Statements

This press release contains "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 regarding product development and the potential benefits and treatment impact of bleximenib (JNJ-75276617). The reader is cautioned not to rely on these forward-looking statements. These statements are based on current expectations of future events. If underlying assumptions prove inaccurate or known or unknown risks or uncertainties materialize, actual results could vary materially from the expectations and projections of Johnson & Johnson. Risks and uncertainties include, but are not limited to: challenges and uncertainties inherent in product research and development, including the uncertainty of clinical success and of obtaining regulatory approvals; uncertainty of commercial success; manufacturing difficulties and delays; competition, including technological advances, new products and patents attained by competitors; challenges to patents; product efficacy or safety concerns resulting in product recalls or regulatory action; changes in behavior and spending patterns of purchasers of health care products and services; changes to applicable laws and regulations, including global health care reforms; and trends toward health care cost containment. A further list and descriptions of these risks, uncertainties and other factors can be found in Johnson & Johnson's most recent Annual Report on Form 10-K, including in the sections captioned "Cautionary Note Regarding Forward-Looking Statements" and "Item 1A. Risk Factors," and in Johnson & Johnson's subsequent Quarterly Reports on Form 10-Q and other filings with the Securities and Exchange Commission. Copies of these filings are available online at **www.sec.gov**, **www.jnj.com** or on request from Johnson & Johnson. Johnson & Johnson does not undertake to update any forward-looking statement as a result of new information or future events or developments.

Footnotes:

[*]Andrew M. Wei, MBBS, PhD, Peter MacCallum Cancer Centre, Royal Melbourne Hospital, Walter and Eliza Hall Institute of Medical Research and University of Melbourne, Australia has provided consulting, advisory, and speaking services to Johnson & Johnson; he has not been paid for any media work.

[1] Wei, A.H., et al. RP2D Determination of Bleximenib in Combination with VEN+AZA: Phase 1b study in ND & R/R AML with KMT2A/NPM1 Alterations. 2025 EHA Annual Congress – European Hematology Association. June 2025. Available at: **https://library.ehaweb.org/eha/2025/eha2025-congress/4159214/**. Accessed June 2025.

[2] The Leukemia & Lymphoma Society. Facts 2022–2023: Updated data on blood cancers. **https://www.lls.org/sites/default/files/2023-08/PS80_Facts_2022_2023.pdf**. Accessed June 2025.

[3] Cancer Research UK. Survival for acute myeloid leukaemia (AML). **https://www.cancerresearchuk.org/about-cancer/acute-myeloid-leukaemia-aml/survival**. Accessed June 2025.

[4] Khan, A.M., et al. Comprehensive age–stratified impact of NPM1 mutation in acute myeloid leukemia. Blood. 2022;140(Supplement 1):1433–1434. American Society of Hematology (ASH) Annual Meeting Abstract. Available at: **https://doi.org/10.1182/blood-2022-165696**. Accessed June 2025.

[5] MD Anderson Cancer Center. Acute myeloid leukemia. **https://www.mdanderson.org/cancer-types/acute-myeloid-leukemia.html**. Accessed June 2025.

[6] American Cancer Society. Signs and symptoms of acute myeloid leukemia (AML). **https://www.cancer.org/cancer/types/acute-myeloid-leukemia/detection-diagnosis-staging/signs-symptoms.html.** Accessed June 2025.

[7] Shimony, S., Stahl, M., & Stone, R.M. Acute myeloid leukemia: 2023 update on diagnosis, risk–stratification, and management. American Journal of Hematology. 2023;98(3):502–526. **https://doi.org/10.1002/ajh.26822**. Accessed June 2025.

Media contact:

Oncology Media Relations
Oncology_media_relations@its.jnj.com

Investor contact:

Lauren Johnson
investor-relations@its.jnj.com

U.S. medical inquiries:
+1 800 526-7736

View original content to download multimedia:**https://www.prnewswire.com/news-releases/new-results-for-johnson--johnsons-bleximenib-demonstrate-promising-antileukemic-activity-in-combination-with-venetoclax-and-azacitidine-for-acute-myeloid-leukemia-302480190.html**

SOURCE Johnson & Johnson