NEWS RELEASE

Artiva Biotherapeutics Announces Longer-term Phase 1/2 Data Demonstrating Prolonged Durability for AlloNK® in Combination with Rituximab in Patients with B-cell-Non-Hodgkin Lymphoma at the ASGCT 28th Annual Meeting

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64% (9/14) complete response rate with AlloNK + rituximab in heavily pretreated patients that were naïve to prior CAR-T cell therapy, in line with approved auto-CAR-T therapies in aggressive B-NHL

Median duration of response for AlloNK + rituximab not yet reached and is at least 19.4 months, in line with approved auto-CAR-T therapies in aggressive B-NHL

AlloNK's activity and well-tolerated safety profile in aggressive B-NHL patients support the potential to deliver deep B-cell depletion in a refractory autoimmune population in outpatient community settings

SAN DIEGO, May 13, 2025 (GLOBE NEWSWIRE) -- Artiva Biotherapeutics, Inc. (Nasdaq: ARTV), a clinical-stage biotechnology company whose mission is to develop effective, safe, and accessible cell therapies for patients with devastating autoimmune diseases and cancers, today announced new longer-term Phase 1/2 data demonstrating durable responses for AlloNK® (also known as AB-101) in combination with rituximab (RTX) in patients with relapsed/refractory (R/R) B-cell non-Hodgkin lymphoma (B-NHL) at the American Society of Gene & Cell Therapy (ASGCT) 28th annual meeting.

“We are thrilled to see continuing durability, now with an ongoing median duration of response of at least 19 months. These data are maturing as one of the data sets with the highest activity and durability for any allogeneic cell therapy in heavily pretreated, aggressive B-NHL patients and in line with approved auto-CAR-T therapies,” said Fred Aslan, M.D., Chief Executive Officer of Artiva. “AlloNK has now demonstrated its ability to significantly enhance the activity of both anti-CD20 rituximab and Affimed’s CD30-directed NK cell engager AFM13 in late line, cancer populations. These findings reinforce the potential of AlloNK to drive deep and durable responses in autoimmune diseases through the enhancement of standard of care monoclonal antibodies and robust B-cell depletion.”

David G. Maloney, M.D., Ph.D., Professor Emeritus of Translational Science and Therapeutics at the Fred Hutch Cancer Center added, “I had the opportunity to dose the first patient with rituximab in 1997 and have most recently adopted the clinical use of autologous CAR-T cell therapies. It is encouraging to see AlloNK demonstrate robust responses and meaningful durability in tough to treat late-line patients with aggressive NHL that are comparable to those with autologous CAR-T cell therapies. The available B-NHL data of AlloNK in combination with rituximab supports readthrough of AlloNK’s mechanism of action from treatment of aggressive B-NHL to treatment of autoimmune diseases.”

Key highlights supporting AlloNK + RTX as a promising cellular therapy for a heavily pretreated CD20 positive R/R B-NHL patient population include:

- High Response Rates – 64% complete response (CR) rate (9/14) for AlloNK + RTX with patients who were naïve to prior CAR-T cell therapy
    - Patients received a median three prior lines and 13 out of 14 patients had aggressive B-NHL
    - Comparable to outcomes with approved auto-CAR-T cell therapies in a similar heavily pretreated, later line patient population with aggressive B-NHL, which in registrational studies showed a 58% CR rate with Yescarta (axicabtagene ciloleucel, ZUMA-1 trial), 53% CR rate with Breyanzi (lisocabtagene maraleucel, TRANSCEND NHL 001 trial), and 40% CR rate with Kymriah (tisagenlecleucel, JULIET trial)
- Prolonged Durability Beyond 12 Months – Median duration of response (mDoR) not yet reached and is at least 19.4 months as of the March 7, 2025, data-cut in patients following treatment with AlloNK + RTX
    - Complete responses sustained in the majority of patients treated with AlloNK + RTX
    - Comparable to outcomes with approved auto-CAR-T cell therapies in a similar heavily pretreated, later line patient population with aggressive B-NHL, which in registrational studies showed an 11.1 month mDoR with Yescarta (axicabtagene ciloleucel, ZUMA-1 trial), 23.1 month mDOR with Breyanzi (lisocabtagene maraleucel, TRANSCEND NHL 001 trial), and mDOR not reached at 40.3 months follow up with Kymriah (tisagenlecleucel, JULIET trial)

- Well-tolerated Safety Profile – AlloNK + RTX was well-tolerated among the 45 patients dosed
    - All cytokine release syndrome (CRS) events were re-classified as infusion-related reactions (IRRs) based on: analysis of cytokines of the 3 patients with reported low-grade CRS, demonstrating an absence of elevated IL-6 and other cytokines; timing of reported events, all occurring within 24 hours of cell infusion; and resolution of symptoms without specialized treatment. These re-classifications support AlloNK's potentially well-tolerated profile, suitable for outpatient community administration
    - No immune effector cell associated neurotoxicity syndrome (ICANS), no graft-versus-host disease, no deaths related to AlloNK, and no trial discontinuations due to AlloNK related adverse events have been reported to date
    - In line with the usage of lymphodepletion regimens, the most common treatment-emergent adverse events (TEAEs) were hematologic, including neutropenia (84%), leukopenia (82%), and lymphopenia (71%). IRRs and febrile neutropenia (n=3; 7% each) were the only related serious TEAEs reported in more than 1 patient
- Implications for the Treatment of Autoimmune Disease
    - AlloNK Drives Potent and Durable B-Cell Depletion – Deep B-cell depletion and prolonged duration of response for over 19 months in heavily pretreated R/R B-NHL patients supports a potent mechanism of action with potential to deliver deep B-cell depletion in a refractory autoimmune population
    - AlloNK has a Tolerability Profile Compatible with Use in a Community Setting – Lack of cell-therapy driven acute toxicities like CRS and ICANS in heavily pretreated patients with aggressive disease, including older patients, supports the potential for outpatient administration

About Artiva Biotherapeutics

Artiva is a clinical-stage biotechnology company whose mission is to develop effective, safe and accessible cell therapies for patients with devastating autoimmune diseases and cancers. Artiva's lead program, AlloNK® (also known as AB-101), is an allogeneic, off-the-shelf, non-genetically modified, cryopreserved NK cell therapy candidate designed to enhance the antibody-dependent cellular cytotoxicity effect of monoclonal antibodies to drive B-cell depletion. AlloNK is currently being evaluated in three ongoing clinical trials for the treatment of B-cell driven autoimmune diseases. This includes two company sponsored trials, one in systemic lupus erythematosus for patients with or without lupus nephritis, and a basket trial across autoimmune diseases including rheumatoid arthritis and Sjögren's disease, as well as an investigator-initiated basket trial in B-cell driven autoimmune diseases. Artiva's pipeline also includes CAR-NK candidates targeting both solid and hematologic cancers. Artiva was founded in 2019 as a spin out of GC Cell, formerly GC Lab Cell Corporation, a leading healthcare company in the Republic of Korea, pursuant to a strategic partnership granting Artiva exclusive worldwide rights (excluding Asia, Australia and New Zealand) to GC Cell's NK cell manufacturing technology and programs.

Artiva is headquartered in San Diego, California. For more information, please visit **www.artivabio.com**.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Statements in this press release that are not statements of historical fact are forward-looking statements. Such forward-looking statements include, without limitation, statements regarding: expectations of Artiva Biotherapeutics, Inc. (the "Company") regarding the potential benefits, accessibility, effectiveness and safety of AlloNK; the Company's belief that the longer-term Phase 1/2 data supports a mechanism of action with potential to deliver responses in autoimmune disease; the potential for outpatient administration; and the Company's ability to advance AlloNK in autoimmune disease. These forward-looking statements are based on the beliefs of the management of the Company as well as assumptions made by and information currently available to the Company. Such statements reflect the current views of the Company with respect to future events and are subject to known and unknown risks and uncertainties. In light of these risks and uncertainties, the events or circumstances referred to in the forward-looking statements may not occur. These and other factors that may cause the Company's actual results to differ from current expectations are discussed in the Company's filings with the Securities and Exchange Commission (the "SEC"), including the section titled "Risk Factors" in the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2025. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date this press release is given. Except as required by law, the Company undertakes no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

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