



## AbelZeta Presents Preclinical Data from Study of C-CAR168 for the Treatment of Autoimmune Diseases at ACR Convergence 2024

- *Novel Anti-CD20/BCMA Bispecific Autologous CAR-T Therapy targeting LN and SLE*

ROCKVILLE, MD, November 16, 2024 – AbelZeta Pharma, Inc. (“AbelZeta” or the “Company”), a global clinical-stage biopharmaceutical company focused on the discovery and development of innovative and proprietary cell-based therapeutic products, today announced that preclinical data from its C-CAR168 study has been presented as a podium presentation at the American College of Rheumatology (ACR) Convergence 2024 held in Washington, DC, November 14-19, 2024. C-CAR168 is a novel autologous bi-specific CAR-T therapy targeting both CD20 and B-cell maturation antigen (BCMA) for the treatment of resistant and refractory Lupus Nephritis (LN) and Systemic Lupus Erythematosus (SLE) patients. The Food and Drug Administration (FDA) granted clearance of the Investigational New Drug (IND) application to proceed with the Phase 1 clinical development of C-CAR168 in May 2024.

**Abstract Title:** C-CAR168 as a Novel Anti-CD20/BCMA Bispecific Autologous CAR-T Therapy for the Treatment of Autoimmune Diseases

**Abstract Number:** 0876

**Session Title:** Abstracts: T Cell Biology & Targets in Autoimmune & Inflammatory Disease

**Session Type:** Abstract Session

**Session Time:** 3:00PM-4:30PM EST

**Presentation location:** The Walter E. Washington Convention Center, Room143ABC

**Presentation time:** Saturday, November 16, 2024, 4:00PM-4:15PM EST

The presentation may be viewed on the Company website page [“Publications & Presentations”](#)

### Key Highlights:

- **Scientific Rationale in Targeting B Cells and Plasma Cells:** C-CAR168 is engineered to selectively target CD20 and BCMA, markers associated with pathogenic B cells and long-lived plasma cells (LLPCs) involved in autoimmune responses. Studies showed that C-CAR168 effectively induced cell death in CD20 and/or BCMA-positive cells, including the age-associated B cell (ABC) subset that is highly expanded in autoimmune conditions.
- **Potent *In Vivo* Cytotoxicity:** In immunodeficient mouse models, a single dose of C-CAR168 demonstrated significant activity across multiple dosage levels, effectively inhibiting the growth of CD20 and BCMA single-positive or double-positive in various xenograft models.
- **Minimal Off-Target Toxicity:** Comprehensive assays, including membrane proteome array, confirmed that C-CAR168 specifically targets CD20 and BCMA proteins, with no significant binding to non-target cells.
- **Safety Profile:** *In vitro* assays showed minimal risk of carcinogenicity or unintended cell transformation, supporting the potential safety of C-CAR168 as a therapeutic option.

“We are encouraged by the progress we have made of C-CAR168 thus far. We believe we potentially have an excellent drug for patients suffering a variety of autoimmune diseases with severe manifestations and poor prognoses,” said Tony (Bizuo) Liu, Chairman and CEO. “This progress marks a major stride forward for us to deliver potentially best-in-class and/or best-in-disease innovative cellular therapies for cancer and inflammatory & immunological diseases.”

Yihong Yao, PhD, Chief Scientific Officer of AbelZeta, commented, “We are excited about the potential of C-CAR168. CD20 has been shown to be a highly effective target for eliminating B cells and treating r/r NHL. It has also shown good promise in autoimmune diseases as evidenced by other approved therapies. Our dual target CD20 and BCMA CAR-Ts have proven to be safe and effective in NHL and multiple myeloma. C-CAR168 was designed to recognize and kill B cells, plasmablasts and LLPCs to eliminate the source of autoantibodies and to provide a definitive treatment in a variety of severe autoimmune diseases resistant to current treatment, including LN and SLE.”

#### **About AbelZeta Pharma, Inc.**

AbelZeta is a global clinical-stage biopharmaceutical company with Centers of Excellence in Rockville, Maryland and Shanghai, China. AbelZeta is focused on developing innovative and proprietary cell-based therapeutic products and is committed to ushering in bespoke treatments that harness the body's own immune system to fight against hematological malignancies and solid tumors, as well as inflammatory and immunological diseases. AbelZeta advances research and development in its own GMP facilities at its centers of excellence for early-stage clinical studies, with a pipeline comprised of CAR-T and TIL therapies.

#### **Forward-Looking Statements**

Statements in this communication relating to plans, strategies, specific activities, and other statements that are not descriptions of historical facts are forward-looking statements. Forward-looking information is inherently subject to risks and uncertainties, and actual results could differ materially from those currently anticipated due to a number of factors, which include any risks detailed from time to time in the Company's reports. Such statements are based on the management's current beliefs and expectations and are subject to significant risks and uncertainties outside of management and the Company's control. Given these uncertainties, you should not place undue reliance on these forward-looking statements, which speak only as of the date hereof. Except as otherwise required by law, the Company does not undertake any obligation, and expressly disclaims any obligation, to update, alter or otherwise revise any forward-looking statements, whether written or oral, that may be made from time to time, whether as a result of new information, future events or otherwise.

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