NEWS RELEASE

Artiva Biotherapeutics Announces FDA Allowance of IND for AB-201, a HER2-Targeted CAR-NK for the Treatment of Solid Tumors

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- AB-201 is a novel and highly specific HER2-directed cell therapy candidate developed using Artiva's proprietary CAR technology and scaled AlloNK™ manufacturing platform
- Clinical study of AB-201 in HER2-positive cancers is planned to initiate in 1H2023

SAN DIEGO, September 20, 2022 — Artiva Biotherapeutics, Inc., a clinical stage company whose mission is to deliver highly effective, off-the-shelf, allogeneic natural killer (NK) cell-based therapies that are safe and accessible to cancer patients, announced today that the U.S. Food and Drug Administration (FDA) has cleared the company's investigational new drug (IND) application for AB-201. AB-201 is an allogeneic HER2-targeted chimeric antigen receptor NK (CAR-NK) cell therapy for the treatment of solid tumors in the outpatient setting with the option for repeat dosing. Starting in the first half of 2023, Artiva plans to conduct a clinical study of AB-201 in HER2-expressing cancer patients at multiple clinical sites in the U.S.

"AB-201 is the first systemically administered, CAR-NK cell therapy candidate targeting the most prevalent HER2-positive cancer indications, including breast and gastric carcinomas," stated Fred Aslan, MD, CEO at Artiva. "Our Manufacturing-First strategy and highly scaled AlloNK™ platform has now demonstrated the ability to produce both non-engineered and CAR-NK product candidates for off-the-shelf use in the outpatient setting, with the potential to treat thousands of patients from single umbilical cord blood donors."

"There is a significant unmet need for effective therapies in the treatment of HER2-positive tumors, and AB-201 has

demonstrated compelling preclinical anti-tumor activity," said **Dr. Edith Perez**, a member of Artiva's Board of Directors.

HER2, also known as ErbB-2, is a member of the epidermal growth factor receptor (EGFR) family of receptors and an oncogene that is highly expressed on the surface of several types of cancers. HER2 status is a predictive factor in several cancer types, and multiple HER2-directed agents, including monoclonal antibodies, antibody-drug conjugates, and small molecule tyrosine kinase inhibitors have been developed for use in the treatment of HER2-positive cancer. However, most patients will eventually experience a relapse or progression of their disease, and once HER2-directed therapies have been exhausted, patients may be offered cytotoxic chemotherapy that provides only a modest benefit. The absence of safe and effective treatments for patients who have exhausted HER2-directed options represents an important unmet medical need.

AB-201 utilizes Artiva's AlloNK™ manufacturing platform and proprietary CAR design. A novel, high affinity anti-HER2 antibody converted to scFv structure confers highly specific tumor targeting and is coupled with Artiva's unique costimulatory structure and IL-15 expression for enhanced activity and persistence. AB-201 has demonstrated potent anti-tumor activity in multiple preclinical HER2-positive tumor model systems. The underlying NK cell is derived from umbilical cord blood donors preselected for advantageous attributes including the high affinity variant of the CD16 receptor and a KIR-B haplotype. AB-201 cell products maintain high expression of CD16, as well as other activating innate cell tumor engaging receptors, enabling the potential for dual targeting therapeutic approaches via monoclonal antibody combinations. The resulting CAR-NK is manufactured at very large scale and cryopreserved in infusion-ready media to enable repeat clinical administrations in the outpatient setting.

About Artiva Biotherapeutics

Artiva's mission is to deliver highly effective, off-the-shelf, allogeneic NK cell-based therapies utilizing our Manufacturing-First approach, that are safe and accessible to cancer patients. Artiva's pipeline includes AB-101, an ADCC enhancer NK-cell therapy candidate for use in combination with monoclonal antibodies or innate-cell engagers. Artiva is currently advancing a Phase 1/2 clinical trial of AB-101 in combination with rituximab for the treatment of relapsed or refractory B-cell lymphomas. Artiva's pipeline also includes AB-201, an anti-HER2 CAR-NK cell therapy candidate for the treatment of HER2-overexpressing tumors, such as breast, gastric, and bladder cancers, and AB-202, a CD19-specific CAR-NK cell therapy candidate for the treatment of B-cell malignancies. Artiva has entered into therapeutic NK cell collaborations with Merck Sharp & Dohme Corp. and with Affimed GmbH. **Artiva's AlloNK™ platform** incorporates cell expansion, activation, and engineering technology developed by Artiva's strategic partner, GC Cell Corporation, a member of the GC family of companies, a leading healthcare company in Korea. Artiva is headquartered in San Diego.

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