Arcellx Presents Preclinical Data for ARC-sparX Platform Technology in Targeting CD123-Positive AML Tumors

Gaithersburg, Md. – June 22, 2020 – Arcellx, a clinical-stage biopharmaceutical company developing novel, adaptive and controllable cell therapies for the treatment of patients with cancer and autoimmune diseases, today presented preclinical data demonstrating the utility of its ARC-sparX platform technology as directed against the CD123 antigen, a therapeutic target for hematologic malignancies including acute myelogenous leukemia (AML). The data show that ARC-T cell activity in a mouse model of AML can be controlled by the specificity, dose, affinity, and valency of administered sparX proteins.

The presentation further describes the Company's proprietary, non-scFv targeting domain, engineered in this context to specifically bind to CD123 with a range of affinities. The ability to develop a soluble targeting agent, sparX, with a range of affinities and valencies is a key element of the design of the ARC-sparX platform, which is intended to provide more specific, effective, and safer alternatives to conventional CAR T cell therapy approaches. The sparX directed against CD123 represents one of a number of sparX proteins being developed by Arcellx directed against different therapeutic targets.

The data were presented at the American Association of Cancer Research (AACR) Virtual Annual Meeting II taking place June 22-24, 2020. Presentation details are as follows:

Title: Chimeric antigen receptors incorporating novel binding domains targeting CD123 direct potent antitumor activity of T cells: Correlation between affinity and activity
Author: LaFleur, David W. *et al.*
Session Type: Poster Session
Session Category: Experimental and Molecular Therapeutics
Session Title: Experimental and Clinical Therapeutics
Abstract Number: 3243
Poster Number: 601

The poster can be accessed through the AACR Virtual Annual Meeting II program or on the Arcellx website at www.arcellx.com.

ARC-sparX Platform Technology

The ARC-sparX platform separates the tumor-recognition and tumor-killing functions of conventional CAR-T cell therapies: (1) sparX (soluble protein antigen-receptor X-linkers) proteins recognize and bind specific antigens on diseased cells and flag those cells for destruction; and (2) ARC-T (Antigen Receptor Complex-T) cells bind the sparX proteins and kill the flagged cells. Arcellx has developed a collection of sparX proteins that bind different cell surface antigens. Administration of alternate sparX proteins can redirect ARC-T cells to different disease antigens to potentially address relapsed and refractory disease due to tumor heterogeneity or antigen

escape. Additionally, ARC-T cell activity can be curbed as needed by controlling the dose and frequency of sparX administration.

About Arcellx, Inc.

Arcellx is a clinical-stage biopharmaceutical company developing novel, adaptive and controllable cell therapies for the treatment of patients with cancer and autoimmune diseases. More information can be found at www.arcellx.com.

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