NextCure Publishes Non-Clinical Data Defining the Mechanism of Action for NC525, a Novel LAIR-1 Antibody for AML

November 15, 2023 at 4:05 PM EST

- New publication in Journal of Clinical Investigation provides compelling evidence for NC525’s ability to specifically kill leukemic cells while sparing healthy cells in non-clinical modeling
- Update for ongoing Phase 1a clinical trial is expected in the fourth quarter of 2023

BELTSVILLE, Md., Nov. 15, 2023 (GLOBE NEWSWIRE) -- NextCure, Inc. (Nasdaq: NXTC), a clinical-stage biopharmaceutical company committed to discovering and developing novel, first-in-class immunomedicines to treat cancer and other immune-related diseases, today announced the publication of a manuscript titled “LAIR-1 Agonism as a Therapy for Acute Myeloid Leukemia” in the Journal of Clinical Investigation. The data demonstrate that NC525 induces cell death in acute myeloid leukemia (AML) blast cells and leukemic stem cells (LSCs) through leukocyte-associated immunoglobulin-like receptor-1 (LAIR-1) agonism by driving a unique apoptotic signaling pathway.

NC525 is a humanized monoclonal antibody (mAb) that specifically binds to LAIR-1 and kills LSCs, while sparing healthy hematopoietic stem cells (HSCs). The publication details a novel mechanism for the potential treatment of AML, as the expression level of the LAIR-1 receptor on leukemic cells acts as a key regulator. High expression of LAIR-1 is commonly seen on LSCs and blast cells and plays a role in survival of these cancer cells. In contrast, LAIR-1 expression is relatively lower on healthy HSCs and does not play a role in survival of normal immune cells. This makes LAIR-1 a promising anti-leukemic target.

“Current standard-of-care (SoC) treatments eliminate leukemic blast cells, and both leukemic stem cells and healthy hematopoietic stem cells, resulting in neutropenia and thrombocytopenia and sub-optimal therapies. In addition, eventual failure of SoC is primarily through the emergence of chemotherapy resistant LSCs,” said Solomon Langermann, Ph.D., NextCure’s chief scientific officer. “We have shown in patient-derived xenograft models that NC525 can specifically eliminate both leukemic stem cells and AML blast cells, including leukemic cells resistant to SoC, while sparing healthy progenitor cells, demonstrating NC525’s potential as a novel treatment for AML.”

In addition to its potential therapeutic effects as a monotherapy, the publication highlights that NC525 synergizes with, and improves the activity of, venetoclax and azacytidine (VEN-AZ), the current SoC therapy in AML. The combination kills leukemic cells from patients refractory to VEN-AZ. Thus, NC525 holds great promise as an important and novel treatment for patients with resistant and refractory AML (R/R AML).

A Phase 1 study with NC525 is underway as an open-label, non-randomized, dose escalation trial to determine safety and tolerability of NC525 in adult patients with relapsed or refractory AML.

About NextCure, Inc.

NextCure is a clinical-stage biopharmaceutical company committed to discovering and developing novel, first-in-class immunomedicines to treat cancer and other immune-related diseases. Through our proprietary FIND-IO™ platform, we study various immune cells to discover and understand targets and structural components of immune cells and their functional impact in disease to develop immunomedicines. Our focus is to bring hope and new treatments to patients who do not respond to current cancer therapies, patients whose cancer progresses despite treatment and patients with cancer types not adequately addressed by available therapies. We are currently developing NC525 in AML.

Cautionary Statement Regarding Forward-Looking Statements

Statements made in this press release that are not historical facts are forward-looking statements. Words such as “expects,” “believes,” “intends,” “hope,” “forward” and similar expressions are intended to identify forward-looking statements. Examples of forward-looking statements in this press release include, among others, statements about NextCure’s plans, objectives, and intentions with respect to the discovery of immunomedicine targets and the discovery and development of immunomedicines. Forward-looking statements involve substantial risks and uncertainties that could cause actual results to differ materially from those projected in any forward-looking statement. Such risks and uncertainties include, among others: our limited operating history and no products approved for commercial sale; our history of significant losses; our need to obtain additional financing; risks related to clinical development, including that early clinical data may not be confirmed by later clinical results; risks that pre-clinical research may not be confirmed in clinical trials; risks related to marketing approval and commercialization; and the unproven approach to the discovery and development of product candidates based on our FIND-IO platform. More detailed information on these and additional factors that could affect NextCure’s actual results are described in NextCure’s filings with the Securities and Exchange Commission (the “SEC”), including NextCure’s most recent Form 10-K and subsequent Form 10-Q. You should not place undue reliance on any forward-looking statements. NextCure assumes no obligation to update any forward-looking statements, even if expectations change.

Investor Inquiries

Timothy Mayer, Ph.D.
NextCure, Inc.
Chief Operating Officer
(240) 762-6486
IR@nextcure.com