NextCure and Collaborators Publish Preclinical Data on Novel Immunomedicine NC410

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BELTSVILLE, Md., June 21, 2021 (GLOBE NEWSWIRE) -- NextCure, Inc. (Nasdaq: NXTC), a clinical-stage biopharmaceutical company discovering and developing novel, first-in-class immunomedicines to treat cancer and other immune-related diseases, today announced the publication of preclinical data in the online journal eLife establishing NC410 as a novel immunomedicine targeting immune-excluded regions of collagen-rich tumors and enabling normalization of the tumor immune microenvironment. NC410, currently being evaluated in a Phase 1/2 clinical trial in patients with advanced or metastatic solid tumors, is a first-in-class immunomedicine designed to block immune suppression mediated by LAIR-1, an immunomodulatory receptor expressed on T cells and myeloid cells, including dendritic cells.

“The blockade of LAIR-1 binding to collagen in the tumor microenvironment (TME) by NC410 represents a novel mechanism for targeting immune-excluded regions of tumors, including those with poor response to immunotherapy due to dense regions of collagen in tumors,” said Michael Richman, NextCure’s president and chief executive officer. “We believe NC410 is a valuable asset in NextCure’s growing pipeline of innovative immunomedicines, and we look forward to continuing to evaluate NC410 in our Phase 1/2 clinical study as well as reporting initial clinical data in the second half of this year.”

“The interaction between immune cells expressing LAIR-1 in collagen rich regions of a tumor suppresses immune activation and prevents immune cells from entering the parenchyma of the tumors, therefore preventing anti-tumor immunity,” said Dallas Flies, Ph.D., NextCure’s Vice President of Discovery Research. “This immune-excluded phenotype is common in multiple cancer indications that are not adequately addressed by checkpoint immunotherapy. Data from our preclinical studies revealed that NC410 promotes T cell mediated anti-tumor immunity as well as infiltration and localized activity of T cells in the TME, suggesting its potential as a cancer monotherapy or combination therapy with checkpoint inhibitors particularly for immune-excluded, collagen-rich tumors.”

The publication titled, "Cancer immunotherapy by NC410, a LAIR-2 Fc protein blocking LAIR-collagen interaction," details the preclinical development and characterization of NC410. It also highlights preclinical data from a series of murine xenograft efficacy studies demonstrating anti-tumor activity and the promotion of T cell expansion and infiltration in the TME by NC410.

NC410 is a dimeric LAIR-2 Fc fusion protein that is designed to act as a LAIR-1 decoy by binding with higher affinity to tumoral collagens than human LAIR-1, preventing LAIR-1-mediated immune suppression. This publication demonstrated that NC410 binding was most notable in collagen-rich tumors, such as gastric, ovarian, lung and head and neck, and in regions where immune cells were being excluded. As a result of T cell activation and effector function, NC410 induces specific collagen degradation products that may relate to the enhanced infiltration of immune cells in the tumor and have the potential to be used as clinical biomarkers.

The paper was published in collaboration with Linde Meyaard, Ph.D., principal investigator at the Center for Translational Immunology, University Medical Center Utrecht, and an Oncode Investigator at Oncode Institute, who identified the inhibitory immune receptor LAIR-1 and has been working on it for over 20 years. The paper can be accessed from eLife’s website at http://www.elifesciences.org.

About NC410
NC410 is a first-in-class immunomedicine designed to block immune suppression mediated by LAIR-1, an immunomodulatory receptor expressed on T cells and myeloid cells, including dendritic cells, a type of antigen presenting cell. In preclinical research, it has been observed that LAIR-1 inhibited T cell function and myeloid activity. In preclinical studies, NC410 blocked the negative effects of LAIR-1 and promoted T cell function and myeloid cell activity. NextCure believes NC410 has the potential to treat multiple cancer types.

About NC410 Phase 1/2 Clinical Study
The NC410 Phase 1/2 study is a multi-center, first in human, open-label, single-armed study to determine the safety and tolerability, define maximum tolerated dose (MTD) and/or pharmacologically active dose, assess preliminary efficacy, and explore predictive and pharmacodynamic biomarkers of NC410 in patients with advanced or metastatic solid tumors. Phase 1 is a classic 3+3 dose escalation design to determine the safety, tolerability, MTD and recommended phase 2 dose (RP2D). Ongoing exploratory analyses include the assessment of predictive biomarkers associated with treatment benefit, and pharmacodynamic markers associated with study drug activity. Phase 2 is going to enroll NSCLC, ovarian, colorectal, pancreatic, gastric and other cancers depending on biomarker data available from the Phase 1 part of the study. More information about this trial may be accessed at www.clinicaltrials.gov (identifier: NCT04408599).

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 order to develop immunomedicines. Our initial 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. www.nextcure.com

Forward-Looking Statements
This press release contains forward-looking statements, including statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements are based on current expectations, forecasts, assumptions and other information available to NextCure as of the date hereof. Forward-looking statements include statements regarding NextCure’s expectations, beliefs, intentions or strategies regarding the

future and can be identified by forward-looking words such as “may,” “will,” “potential,” “expects,” “believes,” “intends,” “hope,” “towards,” “forward,” “later” and similar expressions. Examples of forward-looking statements in this press release include, among others, statements about the development plans for NC410 and expected upcoming milestones, the potential benefits of NC410, and NextCure’s plans, objectives and intentions with respect to 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: the impacts of the COVID-19 pandemic on NextCure’s business, including NextCure’s clinical trials, third parties on which NextCure relies and NextCure’s operations; positive results in preclinical studies may not be predictive of the results of clinical trials; NextCure’s limited operating history and no products approved for commercial sale; NextCure’s history of significant losses; NextCure’s need to obtain additional financing; risks related to clinical development, marketing approval and commercialization; the unproven approach to the discovery and development of product candidates based on NextCure’s FIND-IO™ platform; and dependence on key personnel. 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 in Item 1A of NextCure’s most recent Form 10-K and elsewhere in the Company’s filings with the SEC. You should not place undue reliance on any forward-looking statements. Forward-looking statements speak only as of the date of this press release, and NextCure assumes no obligation to update any forward-looking statements, even if expectations change.

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