Dr. Brahm Segal appointed to NextCure Scientific Advisory Board; NextCure and Roswell Park Shared Nonclinical Data on the Impact of NC410 Blockade on Neutrophil-mediated T Cell Suppression at the 24th Translational Research Cancer Centers Consortium Annua

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BELTSVILLE, Md., June 22, 2022 (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 that collaborator Brahm Segal, M.D., of Roswell Park Comprehensive Cancer Center shared nonclinical data from a research study that models the ability of NC410 to block neutrophil-mediated suppression of T cells in a tumor microenvironment (TME) at the 24th Translational Research Cancer Centers Consortium Annual Meeting. In addition, NextCure appointed Dr. Segal to its Scientific Advisory Board (SAB).

Dr. Segal and NextCure shared new data from a nonclinical research study, which was led by Dr. Segal, in a poster presented at the 24th Translational Research Cancer Centers Consortium (TRCCC) Annual Meeting. The poster, titled “Targeting LAIR-1 abrogates neutrophil-mediated suppression of T cell responses in ovarian cancer microenvironment,” details nonclinical modeling of immune cell interactions in the ovarian cancer tumor microenvironment (TME).

Dr. Segal and his research team previously published work showing that neutrophils acquire complement-dependent suppressor function in the TME characterized by inhibition of stimulated T cell proliferation and activation. In the current study, researchers showed that NC410, a fusion protein of LAIR-2, prevented neutrophil-driven non-responsiveness of T cells.

These data support further investigation into specific roles of LAIR-1 engagement on neutrophils and T cells in the TME and mechanisms by which NC410 can rescue T cell responsiveness.

“Dr. Segal and members of his lab have applied their expertise of the innate immune system to delineate mechanisms by which neutrophils suppress T cells in the TME and contributes to overall immunosuppression,” said Sol Langermann, Ph.D., NextCure’s chief scientific officer. “The new research study from Dr. Segal and his team demonstrated that, in the TME, NC410 blocks neutrophil-mediated T cell suppression. This novel finding expands our understanding of NC410’s ability to restore normal immune function across multiple types of immune cells in the TME. When coupled with NC410’s ability to remodel the architecture of the tumor extracellular matrix (ECM), which enhances T cell infiltration and tumor access, demonstrates NC410’s unique capacity to overcome immune suppression in the TME through multiple mechanisms.”

Highlights of the data presented include:

- Normal circulating neutrophils have minimal surface LAIR-1 expression, while exposure to ascites fluid supernatants from patients with newly diagnosed ovarian cancer induced rapid-onset and sustained expression of LAIR-1.
- T cells constitutively express surface LAIR-1, and LAIR-1 expression in ascites T cells (TALs) was either similar to or increased compared to circulating T cells in a cohort of patients with newly diagnosed ovarian cancer.
- NC410 successfully abrogated neutrophil-mediated T cell suppression in the TME. When exposed to the combination of circulating neutrophils and ovarian cancer ascites fluid supernatants, stimulated circulating T cells have markedly suppressed proliferation; however, T cell proliferation was rescued with the addition of NC410. In separate studies of T cells incubated with ascites fluid alone, NC410 partially rescued stimulated IL-2 production.

Dr. Segal is Chair of Internal Medicine, Chief of Infectious Diseases, Professor of Oncology and Member of the Department of Immunology at Roswell Park Comprehensive Cancer Center, a National Cancer Institute-designated comprehensive cancer center in Buffalo New York. He also holds an appointment as Professor of Medicine at the University at Buffalo’s Jacobs School of Medicine & Biomedical Sciences. His research is focused on innate immune responses to infection, injury, and the tumor microenvironment. Dr. Segal earned his MD from Albert Einstein College of Medicine.

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 shown that LAIR-1 inhibits T cell function and myeloid activity. In preclinical studies, NC410 blocks the negative effects of LAIR-1 and promotes T cell function and myeloid cell activity. NextCure believes NC410 has the potential to treat multiple cancer types.

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. http://www.nextcure.com

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.

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