



NextCure Publishes Preclinical Data Demonstrating Function of FLRT3 as a T Cell Inhibitor in *Science Advances*

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BELTSVILLE, Md., March 05, 2024 (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 "The FLRT3-UNC5B Checkpoint Pathway Inhibits T Cell-Based Cancer Immunotherapies" in the journal *Science Advances*, published by the American Association for the Advancement of Science. The publication details preclinical data evaluating the role of Fibronectin Leucine-Rich Transmembrane protein-3 (FLRT3) in the inhibition of T cell activity and the use of a monoclonal antibody to reverse these effects.

Axon guidance molecules (AGMs) that regulate axonal growth in the developing nervous system have been shown to play a role in the regulation of immune and inflammatory responses. These data demonstrate that cancer cells can exploit AGM protein-protein interactions to evade T cell anti-tumor immunity by acting as checkpoint inhibitors to suppress T cell responses and immune function. Using a genetic screen called "gain of function," the study demonstrated that FLRT3, an AGM, has a novel function as an inhibitor of T cell activity through UNC5B, an axon guidance receptor that also is expressed on T cells and upregulated on activated human T cells.

"While this study focuses on the FLRT3-UNC5B pathway, and the exciting discovery of a novel cancer target and checkpoint inhibitor FLRT3, our AGM screening data and FIND discovery platform has identified additional targets for therapeutic intervention against cancer," said Solomon Langermann, Ph.D., NextCure's chief scientific officer. "Screening and validation of the remaining AGMs provides the potential for us to develop a new, novel class of molecules with immune regulatory properties and/or tumor promoting activity that can be exploited for creating important new therapies ranging from conventional immunotherapy to ADCs. We are currently exploring partnerships to develop an ADC to FLRT3 and other potential targets."

By using a FLRT3 monoclonal antibody in a humanized cancer model, researchers demonstrated the ability to block FLRT3-UNC5B interactions, reversing signaling that promotes tumor growth and inhibits CAR-T cells and BiTE T cell activity. These data indicate that the blockade of the FLRT3-UNC5B pathway has the potential to benefit patients who are not effectively treated with existing immunotherapies.

Future studies will dissect the roles of membrane and soluble FLRT3 on T cell signaling through UNC5B, and downstream pathways. The data were generated in collaboration with Dr. David Langenau at the Massachusetts General Hospital Research Institute's Molecular Pathology and Cancer Center.

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. Our focus is to bring hope and new treatments to patients who do not respond to current therapies, patients whose disease progresses despite treatment and patients with diseases not adequately addressed by available therapies. 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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