NextCure and Yale Publish Nature Medicine Paper Detailing Novel Immunomedicine Target Siglec-15

March 4, 2019 at 8:00 AM EST

— S15 represents a potential novel target for patients not responding to current immunotherapy drugs —
— S15 is a major immune suppressor in B7-H1- (PD-L1-) negative tumors, which are resistant to currently approved anti-PD therapies —
— A first-in-human Phase 1/2 clinical trial is ongoing for NC318, a monoclonal antibody targeting S15 —

New Haven, Conn. and Beltsville, Md.– March 4, 2019 – Yale University's Office of Corporate Research (OCR) and NextCure, Inc., a clinical-stage biopharmaceutical company committed to discovering and developing next-generation immunomedicines for cancer and other immune-related diseases, today announced the publication of a research paper describing Siglec-15 (S15) as a new target for immunotherapy. The research was published in Nature Medicine, under the title 'Siglec-15 as an immune suppressor and potential target for normalization cancer immunotherapy'. The study was led by Prof. Lieping Chen, M.D., Ph.D., from Yale University and conducted in close collaboration with scientists from NextCure's research team.

"Our focus is on discovering next-generation immunomedicines that normalize the immune system. Different from immune checkpoint blockade, cancer immunotherapy based on normalization aims to restore an impaired immune system to a healthy state, so it detects and destroys cancerous cells and avoids harming healthy cells," stated Prof. Chen, Scientific Founder of NextCure, United Technologies Corporation Professor in Cancer Research and Professor of Immunobiology, of Dermatology and of Medicine (Medical Oncology) at the Yale University School of Medicine and the Co-Director of the Cancer Immunology Program at Yale Cancer Center. "Using a new technology platform called genome-scale T-Cell Activity Array (TCAA), we identified S15 as a major immune suppressor in B7-H1 (PD-L1) negative tumors, which are resistant to currently approved anti-PD cancer therapies. We hope S15 will be the first in a series of novel targets for immunomedicines to help patients not responding to current immunotherapy drugs."

The study, led by Prof. Chen, revealed that S15 is upregulated on human cancer cells and M2 macrophages in the tumor microenvironment and suppresses tumor immunity. Furthermore, the study showed that S15 knock-out mice did not develop autoimmune or other diseases, suggesting that S15 inhibition may not be associated with adverse effects on normal cells.

"We are very excited about this publication and demonstration that S15 is an important target for drug development. We recently initiated a first-in-human Phase 1/2 clinical trial for NC318, a monoclonal antibody against S15," said Sol Langermann, Ph.D., CSO of NextCure. "In addition to our NC318 and NC410 cancer programs, our FIND-IO™ platform, an expanded and industrialized form of the TCAA, continues to identify novel targets for cancer and immune-related diseases, as well as other indications. We look forward to advancing immunomedicines against these novel targets."

About NC318
NC318 is a first-in-class immunomedicine against S15, a novel immunomodulatory target found on a restricted set of myeloid cells in the tumor microenvironment and on certain tumor types including lung, ovarian and head and neck cancers. In preclinical research, it was observed that S15 promoted the survival and differentiation of suppressive myeloid cells and negatively regulated T cell function, allowing cancer to avoid immune destruction. In preclinical studies, NC318 blocked the negative effects of S15. NC318 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. For more information, please visit 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 identification of immunomedicine targets and discovery and development of immunomedicines and the use of the FIND-IO platform. 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, marketing approval and commercialization; and the unproven approach to the discovery and development of product candidates based on our FIND-IO platform. 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.