Study Published in Nature Shows F-Star's STING Agonist SB 11285 Enhances Preclinical Efficacy of Radiation Therapy

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SB 11285 in Combination with Radiation is More Effective than Either as Monotherapy in a Murine Tumor Model

SB 11285 is a Second Generation STING Agonist Delivered Intravenously

CAMBRIDGE, United Kingdom and CAMBRIDGE, Mass., April 19, 2021 (GLOBE NEWSWIRE) -- F-star Therapeutics, Inc. (NASDAQ: FSTX), a clinical-stage biopharmaceutical company dedicated to developing next generation bispecific immunotherapies to transform the lives of patients with cancer, today announced the publication of a new study, conducted by Yale University and F-star, of its second generation STING agonist, SB 11285, in the current issue of *Nature Communications*. The study entitled "STING enhances cell death through regulation of reactive oxygen species and DNA damage" demonstrates that systemic administration of a STING agonist in combination with radiation in a preclinical model enhances local control in Head and Neck Squamous Cell Carcinoma (HNSCC) and suggests that STING expression in the tumor is required for maximal therapeutic benefit.

"The studies described in this paper demonstrate that systemic administration of SB 11285, a novel STING agonist, in combination with radiation, enhances the antitumor effects in animal models of HNSCC. Furthermore, STING expression in the tumor can be used as a predictive biomarker and a combination of radiation with SB 11285 demonstrated the potential for enhanced therapeutic benefit for patients with cancer," commented Thomas J. Hayman, M. D., Ph.D., Assistant Professor, Department of Therapeutic Radiology at Yale University School of Medicine, and lead author of the study.

Resistance to DNA-damaging agents such as radiation is a significant cause of treatment failure and poor outcomes in oncology. To identify unrecognized regulators of cell survival, the researchers performed a whole-genome CRISPR-Cas9 screen following treatment with ionizing radiation and identified STING (stimulator of interferon genes) as an intrinsic regulator of tumor cell survival. In addition, the study showed that STING overexpression restored tumor cell sensitivity to ionizing radiation and that STING loss confers resistance to DNA damaging therapies.

Analysis of tumors from HNSCC patient specimens showed that low STING expression is associated with poor outcomes. The research also demonstrated that pharmacologic activation of STING enhances the effects of ionizing radiation *in vivo*, providing a rationale for therapeutic combinations of STING agonists and DNA-damaging agents as well as a strong rationale for investigating STING expression as a predictive biomarker.

"The results of this research are encouraging and suggest that our novel STING agonist SB 11285 could enhance the response to radiation therapy for HNSCC, and potentially other tumor types. With an ongoing Phase 1/2 study of SB 11285 in both monotherapy and in combination with a PD-L1 monoclonal antibody, we continue to gather evidence confirming the use of this intravenously administered STING agonist to expand the use of checkpoint inhibitors in cancer therapy," said Neil Brewis, Chief Scientific Officer of F-star Therapeutics.

About SB 11285

Received as part of F-star's recent business combination, SB 11285 is an intravenously administered second generation STING agonist. Although many patients respond to PD-1 therapies, in some patients, the PD-1 blockade is not enough to activate immune cells. Activation of the STING (Stimulator of Interferon Genes) pathway induces both innate and adaptive immunity and subsequent activation of cytotoxic T cells and NK cells for antitumor activity. SB 11285 is a self-assembled cyclic dinucleotide compound that has demonstrated enhanced cellular uptake into immune cells, and preclinical studies in multiple tumor models have demonstrated the potential advantages of systemically administered SB 11285 over intratumoral STING agonists. Phase 1/2 clinical trials of SB 11285 are underway including in combination with a PD-L1 mAb to improve checkpoint inhibitor outcomes.

About F-star Therapeutics, Inc.

F-star is a clinical-stage biopharmaceutical company developing tetravalent bispecific antibodies for a paradigm shift in cancer therapy. By developing medicines that seek to block tumor immune evasion, the Company's goal is to offer patients greater and more durable benefits than current immuno-oncology treatments. Through its proprietary tetravalent, bispecific natural antibody (mAb²™) format, F-star's mission is to generate highly differentiated best-in-class drug candidates with monoclonal antibody-like manufacturability. For more information visit www.f-star.com and follow us on LinkedIn and Twitter.

Forward Looking Statements

Certain statements contained in this press release regarding matters that are not historical facts, are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, known as the PSLRA. These include statements regarding management's intentions, plans, beliefs, expectations or forecasts for the future and, therefore, you are cautioned not to place undue reliance on them. No forward-looking statement can be guaranteed, and actual results may differ materially from those projected. F-star undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise, except to the extent required by law. Such forward-looking statements are based on our expectations and involve risks and uncertainties; consequently, actual results may differ materially from those expressed or implied in the statements due to a number of factors, including those discussed in F-star's Annual Report on Form 10-K, as well as subsequent Quarterly Reports on Form 10-Q and other documents to be filed from time to time with the SEC. New factors emerge from time to time and it is not possible for us to predict all such factors, nor can we assess the impact of each such factor on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those

contained in any forward-looking statements. Forward-looking statements included in this communication are based on information available to F-star as of the date of this communication. F-star does not assume any obligation to update such forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

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