F-star Therapeutics Presents Data on FS222 at 2020 AACR Annual Meeting

Simultaneous High Affinity Binding of CD137 and PD-L1 Results in Potent T Cell Activation Superior to a Combination of Monoclonal Antibodies in Preclinical Studies

Supports Strong Mechanistic Rationale for Improved Clinical Outcomes

Cambridge, UK and Cambridge, MA, June 22, 2020 – F-star Therapeutics Ltd., a clinical-stage biopharmaceutical company focused on transforming the lives of patients with cancer through the development of innovative tetravalent bispecific (mAb^{2}™) antibodies, today announces that preclinical data on FS222, a potentially best-in-class conditional agonist, targeting both CD137 and PD-L1, will be presented in a poster session at the American Association for Cancer Research (AACR) Virtual Annual Meeting II being held from June 22 to June 24, 2020.

FS222 targets PD-L1 (programmed death-ligand 1), the immune checkpoint protein which regulates the balance of activated T cells in the immune system and is over-expressed on many solid tumors, and CD137, a co-stimulatory molecule from the tumor necrosis factor receptor superfamily (TNFRSF), which is widely known to be upregulated on CD8^{+} T cells or "killer T cells". Currently, only a fraction of patients respond to monotherapies that block the PD-1/PD-L1 pathway, and monotherapy CD137-targeting molecules have yet to demonstrate significant responses in patients without toxicity.

The preclinical data presented in the poster session show that FS222 simultaneously binds PD-L1 and multimeric CD137 with sub-nanomolar affinity resulting in potent T cell activation, superior to a combination of monoclonal antibodies. These data also show that the bispecific antibody's tetravalency enhances its activity by providing optimal PD-L1 blockade, as well as potent CD137 agonism, resulting in significant T cell activation.

CD137 agonism and the magnitude of downstream T cell activation was shown to be dependent on the prevalence of PD-L1 expressing cells, demonstrating the conditional nature of FS222's mechanism of action. Furthermore, data from a non-human primate dose-range finding study, also included in the poster, show little evident toxicity upon repeated dosing with FS222.

A regulatory application to commence clinical development of FS222 is in preparation.

A link to the poster can be found here.

Neil Brewis, CSO of F-star, said: *"We see a compelling rationale for the clinical testing of FS222, which we believe has the potential to provide meaningful and long-lasting benefit to patients with solid tumors, beyond current checkpoint inhibitors. With FS222, we have the potential to leverage a focused, potent and safe immune response, outperforming CD137 and PD-L1 monospecific antibodies and providing greater benefit to patients than a combination approach."*

About F-star Therapeutics Ltd

F-star is a clinical-stage biopharmaceutical company delivering 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 antibody (mAb²™) format, F-star is generating first- and best-in-class drug candidates with monoclonal antibody-like manufacturability. Building on the combined expertise of its world-class management team and scientific leadership, F-star is poised to deliver the next breakthrough immunotherapies for patients with cancer. For more information visit www.f-star.com.

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