F-star Therapeutics to Present New Clinical and Mechanistic Data on its LAG-3/PD-L1 Tetravalent Bispecific Antibody, FS118, at the SITC 2020 Virtual Annual Meeting

Good tolerability and encouraging signs of clinical activity seen in heavily pre-treated patients with acquired resistance to prior checkpoint therapy

Highly differentiated mechanism of action shows LAG-3 shedding from surface of T cells to potentially overcome checkpoint therapy resistance

Cambridge, UK and Cambridge, MA, November 11, 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 new data supporting the potential of its most advanced clinical asset FS118, a LAG-3/PD-L1-targeting tetravalent bispecific antibody, to overcome immunosuppression mediated by both LAG-3 and PD-L1 in patients with cancer. The clinical and preclinical data will be presented at the Society for Immunotherapy of Cancer's (SITC) 35th Virtual Annual Meeting held from Monday, November 9, 2020 through Saturday, November 14, 2020.

FS118 is a potentially first-in-class dual checkpoint inhibitor developed to overcome tumor evasion mechanisms promoted by two highly immunosuppressive pathways, LAG-3 and PD-L1. By simultaneously blocking both inhibitory pathways, FS118 has demonstrated in preclinical studies potent anti-tumor growth activity as well as a highly differentiated mechanism of action.

In a Phase 1 study in patients with advanced cancer and resistance to checkpoint therapy, FS118 administration showed good tolerability and encouraging signs of clinical activity in heavily pre-treated patients who had acquired resistance to prior checkpoint therapy.

- 43 patients with solid tumors received FS118 at doses from 0.8mg up to 20mg/kg across 8 dose levels. Weekly administration was well tolerated, did not result in dose- or treatment-limiting toxicities, and no maximum tolerated dose was reached. No unexpected safety signals for the drug class of immune-checkpoint inhibitors were identified.
- All of the patients were pre-treated with and resistant to prior PD-(L)1 therapies. Long-lasting disease stabilization (>6 months) was observed in a subset of patients with acquired resistance, but not in patients with primary resistance. Two patients remained on FS118 treatment as of the data cut off date of Sept 18, 2020 (duration of 14 and 18 months).
- FS118 caused sustained dose-dependent elevation of serum LAG-3, a marker of prolonged pharmacodynamic activation, and of FS118's novel mechanism of shedding LAG-3 receptors from exhausted immune cells.
- Co-expression of LAG-3 and PD-L1 in the tumors of patients with acquired resistance was associated with a better clinical outcome.

Additional data from preclinical mechanistic studies demonstrate that FS118 induced shedding of the LAG-3 receptor, which was not observed with the combination of PD-L1 and LAG-3 antibodies. These studies demonstrate that shedding of the LAG-3 receptor from the surface of T cells is dependent upon simultaneous binding to both PD-L1 and LAG-3. Furthermore, removing LAG-3 from the surface of immune cells, via shedding, may be an important mechanism by which FS118 overcomes compensatory upregulation of LAG-3 induced by PD-L1 blockade. Additionally, soluble LAG-3 may be an important biomarker for monitoring the pharmacodynamic activity of FS118 in patients.

Abstracts are available on the website, and the accompanying posters will be available in the Virtual Poster Hall open from 8:00 am EST on Monday, November 9, until the Virtual Poster Hall closes on December 31, 2020.

Details of the abstracts:

Title: A First-in-Human Study of FS118, a Tetravalent Bispecific Antibody Targeting LAG-3 and PD-L1, in Patients with Advanced Cancer and Resistance to PD-(L)1 Therapy
Live Q&A: Poster #395 – Wednesday, Nov. 11 from 5:15-5:45 p.m. EST and Friday, Nov. 13 from 4:40-5:10 p.m. EST

Title: FS118, a Tetravalent Bispecific Antibody Targeting LAG-3 and PD-L1, Induces LAG-3 Shedding Resulting in Receptor Downregulation by T Cells via a Novel mechanism of Action
Live Q&A: Poster #715 – Wednesday, Nov. 11 from 5:15-5:45 p.m. EST and Friday, Nov. 13 from 4:40-5:10 p.m. EST

Louis Kayitalire, Chief Medical Officer, of F-star said: *"These results from our first-in-human study for FS118 are very encouraging and demonstrate the significant potential of FS118 to overcome immunotherapy resistance. Two patients, who progressed quickly on prior therapies, remain on treatment 14 and 18 months later, and more patients experienced at least six months of disease control. This is a signal of FS118's potentially differentiated activity in cancer patients who have run out of treatment options."*

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About F-star Therapeutics Ltd

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 (mAb^{2}™) 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.

Cautionary Statement Regarding Forward-Looking Statements This press release includes "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 (the "PSLRA"). Forward-looking statements include statements, other than statements of historical fact, regarding, among other things statements relating to the development of FS118; the expected participation and presentation at upcoming medical conferences; preclinical development; and our belief that FS118 has a differentiated mechanism of action that may address some of the limitations associated with currently available cancer treatments. 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. We use words such as "anticipates," "believes," "plans," "expects," "projects," "future," "intends," "may," "will," "should," "could," "estimates," "predicts," "potential," "continue," "guidance," and similar expressions to identify these forward-looking statements that are intended to be covered by the safe-harbor provisions of the PSLRA. 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, but not limited to, risks relating to our status as a clinical stage immuno-oncology company and our need for substantial additional funding in order to complete the development and commercialization of our product candidates, that we may experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates, that our clinical trials may fail to adequately demonstrate the safety and efficacy of its product candidates, that preclinical drug development is uncertain, and some of our product candidates may never advance to clinical trials, that results of preclinical studies and early stage clinical trials may not be predictive of the results of later state clinical trials, that we rely on patents and other intellectual property rights to protect our product candidates, and the enforcement, defense and maintenance of such rights may be challenging and costly, and that we face significant competition in our drug discovery and development efforts. 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 press release are based on information available to us as of the date of this press release. F-star does not undertake any obligation to update such forward-looking statements to reflect events or circumstances after the date of this press release.

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