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Translational Data at SITC 2021 from Adaptimmune's Phase 1 SURPASS Trial Indicate Adding AKTi to Manufacturing May Contribute to Sustained Antitumor Activity of Next-gen SPEAR T-cells

- Inhibition of AKT signaling during *ex vivo* T-cell expansion phase of manufacturing provides further proliferative potential and enhanced memory phenotype of next-gen SPEAR T-cells -

- Data suggests that addition of AKT inhibitor (AKTi) during manufacture can remodel gene expression towards better proliferation or better cytotoxicity -

- AKTi increases median persistence post-infusion, and in some patients, significant expansion is implied by higher peak recovery -

PHILADELPHIA and OXFORDSHIRE, United Kingdom, Nov. 12, 2021 (GLOBE NEWSWIRE) -- Adaptimmune Therapeutics plc (Nasdaq: ADAP), a leader in cell therapy to treat cancer, will present translational data from the Phase 1 SURPASS trial during the poster session at the Society for Immunotherapy of Cancer (SITC) annual meeting in Washington, D.C. (or virtual) (Abstract #373) from November 12-14, 2021. In addition, the Company will present a data update from four patients treated in the radiation sub-study of the Phase 1 trial with afami-cel (Abstract #376).

"The SURPASS data show that the addition of AKTi along with next-gen enhancements results in an improved and more potent SPEAR T-cell product," said Karen Miller, Adaptimmune's Senior Vice President, Pipeline Research. "The data we continue to generate in the Phase 1 SURPASS trial shows promising responses for patients across multiple solid tumor indications. We will continue to explore more next-gen enhancements and manufacturing improvements, informed by our ongoing translational research, to deliver the best cell therapies we can for people with cancer."

Addition of AKTi during manufacturing results in improved phenotype and proliferative potential of SPEAR T-cells – attributes that may contribute to more sustained antitumor immune responses

***In vitro* analyses of manufactured product samples**

- ADP-A2M4CD8 SPEAR T-cells were manufactured with and without AKTi
  - Samples manufactured with AKTi expanded more effectively during manufacturing compared to samples without
  - Flow cytometry analyses of ADP-A2M4CD8 SPEAR T-cells demonstrated increased stem cell memory content of the transduced population in samples

manufactured in the presence of AKTi compared to those manufactured without
    - This increased stem cell memory content may be beneficial in generating a more sustained immune response in patients
- Further experiments were conducted to evaluate the impact of AKTi on SPEAR T-cell manufacturing: surplus pre-infusion apheresis material from patients in the Phase 1 trial of afami-cel trial was remanufactured into research-grade afami-cel with or without AKTi
    - *In vitro* functional analyses showed that manufacturing afami-cel SPEAR T-cells with AKTi can remodel gene expression in favor of improved proliferation or cytotoxicity

Post-infusion analyses

- ADP-A2M4CD8 SPEAR T-cells manufactured with AKTi demonstrated higher median persistence in peripheral blood of patients in the Phase 1 SURPASS trial, by peak vector copy number and by peak percent recovery, compared to those manufactured without
- Serum cytokine responses, measured in peripheral blood of patients who received product manufactured with AKTi (n=14) showed similar or greater induction of host immune response compared to those who received product without AKTi (n=6)

Radiation sub-study (closed to enrollment in July 2021) of the Phase 1 trial with afami-cel

- As of December 27, 2020 (data cut-off), 4 patients received low-dose radiation and afami-cel
- Overall response rate was 33%, 1 partial response (PR) (melanoma; reported in 2019) out of 3 evaluable patients
- Disease control rate was 100%, 1 PR, 2 stable diseases (SD) (1 patient with ovarian and 1 patient with head and neck cancer) out of 3 evaluable patients
- Serum cytokine profiles were consistent with afami-cel monotherapy, confirming no apparent impact of low-dose radiation on persistence and peripheral immune response.
- There was greater detection of SPEAR T-cells in tumor biopsies when infusion followed low-dose radiation, compared to samples from patients who received afami-cel monotherapy in the Phase 1 trial

About Adaptimmune

Adaptimmune is a clinical-stage biopharmaceutical company focused on the development of novel cancer immunotherapy products for people with cancer. The Company's unique SPEAR (Specific Peptide Enhanced Affinity Receptor) T-cell platform enables the engineering of T-cells to target and destroy cancer across multiple solid tumors.

Forward-Looking Statements

This release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 (PSLRA). These forward-looking statements involve certain risks and uncertainties. Such risks and uncertainties could cause our actual results to differ materially from those indicated by such forward-looking statements, and include, without limitation: the success, cost and timing of our product development activities and

clinical trials and our ability to successfully advance our TCR therapeutic candidates through the regulatory and commercialization processes. For a further description of the risks and uncertainties that could cause our actual results to differ materially from those expressed in these forward-looking statements, as well as risks relating to our business in general, we refer you to our Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (SEC) on November 4, 2021, and our other SEC filings. The forward-looking statements contained in this press release speak only as of the date the statements were made and we do not undertake any obligation to update such forward-looking statements to reflect subsequent events or circumstances.

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