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Dose Escalation in Liver Cancer Study with ADP-A2AFP (AFP) SPEAR T-cells and Moving to Expansion Phase in ADP-A2M10 (MAGE-A10) Lung Cancer Study after Favorable Safety Reviews

PHILADELPHIA and OXFORD, United Kingdom, Jan. 07, 2019 (GLOBE NEWSWIRE) -- Adaptimmune Therapeutics plc (Nasdaq:ADAP), a leader in T-cell therapy to treat cancer, today announced that the Safety Review Committee (SRC) has endorsed dose escalation in the ongoing ADP-A2AFP (AFP) study in patients with hepatocellular carcinoma (liver cancer) to the second dose cohort. The SRC has also endorsed moving to the expansion phase of the ADP-A2M10 (MAGE-A10) lung cancer study.

Across both studies, most adverse events have been consistent with those typically experienced by cancer patients undergoing cytotoxic chemotherapy or other cancer immunotherapies with no evidence of alloreactivity or toxicity related to off-target binding.

In the ADP-A2AFP study, two patients have received 100 million transduced SPEAR T-cells targeting AFP in the first dose cohort, and there was no evidence of hepatotoxicity. The SRC endorsed dose escalation after evaluating the first two patients and taking into consideration the benefit:risk profile observed across programs in Cohort 1.

In the ADP-A2M10 lung cancer study, ten patients have been treated in the first three cohorts (up to six billion transduced cells), and the expansion phase will allow for doses of up to ten billion transduced cells (range 1.2 to 10 billion).

“We are pleased that the SRC has endorsed moving to the expansion phase of the ADP-A2M10 lung cancer study. Additionally, our ADP-A2AFP study has progressed to the next dose level of 1 billion transduced cells. Importantly, we did not observe liver toxicity in the two patients treated at a dose of 100 million transduced cells. In our other studies, we continue to enroll in the expansion phases and, as we previously have said, we are on track to report our next clinical data by May this year,” said Rafael Amado, Adaptimmune’s President of Research & Development.

Overview of ADP-A2AFP (AFP) Study Design

- This is a first-in-human, open-label study utilizing a modified 3+3 design in up to 36 patients with escalating target doses of 100 million (Cohort 1), 1 billion (Cohort 2), and 1.2-6 billion (Cohort 3) transduced SPEAR T-cells to evaluate safety, including dose limiting toxicities (DLTs) followed by an expansion phase with doses of up to 10 billion SPEAR T-cells
- This trial is being conducted in patients with hepatocellular carcinoma

- There was a 21-day stagger between patients in Cohort 1, with this stagger dropping to 7 days in Cohorts 2, and 3 in the absence of DLTs. There is no pre-determined stagger in the expansion phase
- Cohorts 1-3 were intended to enroll 3 patients each with an expansion to 6 patients if DLTs were observed
- The expansion phase can enroll up to 30 patients
- The lymphodepletion regimen is fludarabine (flu) (20mg/m^2/day) and cyclophosphamide (cy) (500 mg/m^2/day) for 3 days
- Efficacy is assessed by overall response rate, time to response, duration of response, progression-free survival, and overall survival at weeks 4, 8, and 16, month 6, and then every 3 months until confirmation of disease progression

Overview of ADP-A2M10 (MAGE-A10) Lung Cancer Study Design

- This is a first-in-human, open-label study utilizing a modified 3+3 design in up to 28 patients with escalating target doses of 100 million (Cohort 1), 1 billion (Cohort 2), and 1.2-6 billion (Cohort 3) transduced SPEAR T-cells to evaluate safety, including DLTs followed by an expansion phase with doses of up to 10 billion SPEAR T-cells
- This trial is being conducted in patients with non-small cell lung cancer (NSCLC)
- There was a 21-day stagger between patients in Cohort 1, with this stagger dropping to 7 days in Cohorts 2, and 3 in the absence of DLTs. There is no pre-determined stagger in the expansion phase
- Cohorts 1-3 were intended to enroll 3 patients each with an expansion to 6 patients if DLTs were observed
- The expansion phase can enroll up to 10 patients
- The lymphodepletion regimen is cyclophosphamide (1800 mg/m^2/day) for 2 days in Cohort 1, fludarabine (flu) (30mg/m^2/day) and cyclophosphamide (cy) (600 mg/m^2/day) for 3 days in Cohort 2, and Cy (600 mg/m^2/d) x 3 days + Flu (30 mg/m^2/d) X 4 days in Cohort 3
- Efficacy is assessed by response rate, duration of response, progression-free survival, and overall survival at weeks 4, 8, and 12, month 6, and then every 3 months (for 2 years) and then every 6 months until confirmation of disease progression

About Adaptimmune

Adaptimmune is a clinical-stage biopharmaceutical company focused on the development of novel cancer immunotherapy products. The Company's unique SPEAR (Specific Peptide Enhanced Affinity Receptor) T-cell platform enables the engineering of T-cells to target and destroy cancer, including solid tumors. Adaptimmune is currently conducting clinical trials with SPEAR T-cells targeting MAGE-A4, MAGE-A10, and AFP across multiple solid tumor indications. The Company is located in Philadelphia, USA and Oxfordshire, U.K. For more information, please visit http://www.adaptimmune.com

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 6, 2018, 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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