Adaptimmune Data Presented at American Society of Hematology (ASH) Annual Meeting for NY ESO SPEAR T-cells in Multiple Myeloma Pilot Study

December 11, 2017

PHILADELPHIA and OXFORD, United Kingdom, Dec. 11, 2017 (GLOBE NEWSWIRE) -- Adaptimmune Therapeutics plc (Nasdaq:ADAP), a leader in T-cell therapy to treat cancer, submitted updated data from its completed pilot study[1] of NY-ESO SPEAR T-cell therapy in multiple myeloma patients in the setting of autologous stem cell transplant (ASCT) presented by the main investigator at the annual ASH meeting.

“Mature data from this study in multiple myeloma continues to show promising efficacy and acceptable safety,” said Rafael Amado, Adaptimmune’s Chief Medical Officer. “We have observed a high response rate, long response duration, and encouraging long -term survival in this population of patients with poor prognosis, treatment refractory myeloma. In addition, NY-ESO SPEAR memory T-cells persist long-term and respond to antigen after more than three years post-treatment. NY-ESO SPEAR T-cell therapy is currently being evaluated in a second study in multiple myeloma patients with or without KEYTRUDA®, all without stem cell transplant.”

Long-term follow up data from the pilot study of NY-ESO in multiple myeloma in the context of ASCT

During an oral presentation, Dr. Edward Stadtmauer, University of Pennsylvania Abramson Cancer Center, presented an update on all twenty-five multiple myeloma patients treated in Adaptimmune’s pilot study in the setting of ASCT. The data cut-off for this oral presentation was August 16, 2017.

Overall Conclusions

- NY-ESO SPEAR T-cell therapy in the setting of ASCT has promising efficacy and acceptable safety in multiple myeloma patients
- Durable responses and long-term survival demonstrated in this refractory population
- NY-ESO SPEAR T-cells persisted long term (>1000 days), but were are not exhausted
- The most common adverse events (summarized below) were generally not unexpected in this patient population
- Persisting cells produced multiple cytokines in response to antigen
- Persisting cells included highly differentiated effector subsets and a population of self-renewing stem cell memory cells
- A follow up study is ongoing in combination with KEYTRUDA®, which will transition to GSK

Efficacy Results

- Of the twenty-five patients treated in this study, 11 were alive at data cut-off
- Three patients remain disease-progression free at 3, 4.5, and 5 years post-treatment
- Five of 18 subjects tested were minimal residual disease negative at day 100
- The median duration of response was >12 months
- The median predicted overall survival is approximately three years
- Overall response rate (ORR) at 100 days and one year were 76% and 44%, respectively, using International Myeloma Working Group criteria

Safety Results

- There were no fatal adverse events (AEs), and cytokine release syndrome was not reported
- Autologous graft versus host disease (GvHD) was reported in six patients; all resolved with corticosteroids and supportive therapy
- Most common AEs (any grade AE occurring in >50% of patients) included diarrhea (100%), nausea (100%), anemia (96%), thrombocytopenia (92%), fatigue (88%), pyrexia (84%), rash (84%), hypokalemia (76%), febrile neutropenia (72%), vomiting (72%), neutropenia (68%), back pain (60%), leukopenia (60%), cough (56%), dyspnea (56%), hypocalcemia (56%), peripheral edema (56%), stomatitis (56%), and abdominal pain (52%).

Exploratory Endpoints

- TCR-transduced NY-ESO SPEAR T-cells persisted long term (>1000 days) with minimal expression of exhaustion markers, and persisting cells:
    - Were functional, producing multiple cytokines in response to antigen in vitro
    - Included highly differentiated effector subsets and a population of self-renewing stem cell memory cells

AboutAdaptimmune
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, -A10, and AFP across several solid tumor indications. GlaxoSmithKline plc (LSE:GSK) (NYSE:GSK) exercised its option to exclusively license the right to research, develop, and commercialize Adaptimmune's NY-ESO SPEAR T-cell therapy program in September 2017. Transition of this program to GSK is ongoing. The Company is located in Philadelphia, USA and Oxfordshire, U.K. For more information, please visit http://www.adaptimmune.com

Forward-LookingStatements

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 2, 2017, 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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[1] This study closed for enrollment in 2015. All ongoing NY-ESO studies will ultimately transition to GSK as part of its option exercise over Adaptimmune's NY -ESO SPEAR T-cell therapy program that was announced in September 2017.

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Source: Adaptimmune Therapeutics plc