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# Adaptimmune Initiates Phase I / II Trial Evaluating Its Affinity Enhanced T-Cell Therapy Targeting NY-ESO-1 in Patients With the Most Common Type of Lung Cancer

OXFORD, United Kingdom and PHILADELPHIA, Nov. 24, 2015 (GLOBE NEWSWIRE) -- Adaptimmune Therapeutics plc (Nasdaq:ADAP), a leader in the use of engineered T-cell therapy to treat cancer, today announced that it has initiated a study of its affinity enhanced T-cell therapy targeting the NY-ESO-1 cancer antigen in patients with Stage IIIb or Stage IV non-small cell lung cancer (NSCLC), the most common type of lung cancer, representing approximately 85 percent of lung cancers. Adaptimmune is developing the affinity enhanced T-cell therapy targeting NY-ESO-1 under a collaboration agreement with GlaxoSmithKline (GSK).

“Lung cancer is the most common cancer worldwide and it is the leading cause of all cancer-related deaths, responsible for approximately 1 in 5 cancer deaths. NSCLC accounts for the vast majority of these cancer deaths and thus represents a great unmet medical need,” commented Dr. Rafael Amado, Adaptimmune’s Chief Medical Officer. “Our NY-ESO TCR therapeutic candidate is being studied in a number of solid tumors and hematological malignancies including synovial sarcoma, multiple myeloma, melanoma, ovarian cancer and gastric and esophageal cancer, and we are excited to initiate this study in patients with NSCLC. This new study marks an important step toward further elucidating the tolerability profile and anti-cancer activity of our promising therapeutic candidate in another cancer, and towards potentially reaching our goal of offering cancer patients an efficacious alternative therapy to current treatments.”

This is an open label clinical study in up to 10 patients with locally advanced or metastatic NSCLC and whose disease has progressed or not responded to prior therapies. The company expects to begin dosing of patients shortly.

Patients with the HLA-A*0201, HLA-A*0205, and/or HLA-A*0206 allele, whose tumor expresses the NY-ESO-1 tumor antigen, and who meet study entry criteria will be eligible to receive a single dose of autologous genetically modified T-cells expressing affinity optimized TCRs specific for NY-ESO-1. Though the prevalence of HLA sub-types varies from population to population, the most common in the western world is HLA-A2. Among the HLA-A2 variants, the most prevalent are HLA-A*0201 and HLA-A*0206. The primary objective of this study is to evaluate the safety and tolerability of Adaptimmune’s affinity enhanced T-cell therapy targeting NY-ESO in HLA-A*0201, HLA-A*0205 and/or HLA-A*0206 positive patients with NY-ESO-1 positive advanced NSCLC. Secondary objectives include evaluation of efficacy in these patients, measurement of persistence of genetically modified

cells in the body, and evaluations of the phenotype and functionality of genetically modified cells isolated from peripheral blood or tumor post infusion.

For more information on this clinical trial, please visit ClinicalTrials.gov at: https://clinicaltrials.gov/ (Identifier: NCT02588612).

**About NSCLC**
Lung cancer is the most common cancer worldwide, and is the leading cause of cancer deaths in both men and women in the United States. Each year, more people die of lung cancer than of colon, breast, and prostate cancers combined. Non-small cell lung cancer, or NSCLC, is the most common type of lung cancer, representing approximately 85 percent of lung cancers. There are 3 main subtypes of NSCLC. Approximately 40 percent of lung cancers are adenocarcinomas, which start in early versions of the cells that would normally secrete substances such as mucus. This type of lung cancer occurs mainly in current or former smokers, but it is also the most common type of lung cancer seen in non-smokers. Approximately 25 to 30 percent of all lung cancers are squamous cell carcinomas, which start in early versions of squamous cells which line the inside of the airways in the lungs and are generally linked to a history of smoking. Large cell (undifferentiated) carcinoma account for 10 to 15 percent of lung cancers and can appear in any part of the lung.

**About Adaptimmune**
Adaptimmune is a clinical stage biopharmaceutical company focused on novel cancer immunotherapy products based on its T-cell receptor (TCR) platform. Established in 2008, the company aims to utilize the body's own machinery – the T-cell – to target and destroy cancer cells by using engineered, increased affinity TCRs as a means of strengthening natural patient T-cell responses. Adaptimmune's lead program is an affinity enhanced T-cell therapy targeting the NY-ESO cancer antigen. Its NY-ESO TCR affinity enhanced T-cell therapy has demonstrated signs of efficacy and tolerability in Phase 1/2 trials in solid tumors and in hematologic cancer types, including synovial sarcoma and multiple myeloma. In June 2014, Adaptimmune announced that it had entered into a strategic collaboration and licensing agreement with GlaxoSmithKline (GSK) for the development and commercialization of the NY-ESO TCR program in partnership with GSK. In addition, Adaptimmune has a number of proprietary programs and its next affinity enhanced T-cell therapy, directed at MAGE A-10, is scheduled to enter the clinic shortly. The company has identified over 30 intracellular target peptides preferentially expressed in cancer cells and is currently progressing 12 through unpartnered research programs. Adaptimmune has over 190 employees and is located in Oxfordshire, U.K. and Philadelphia, USA. For more information: http://www.adaptimmune.com

**Forward-Looking Statements**
This press release contains "forward-looking statements," as that term is defined under the Private Securities Litigation Reform Act of 1995 (PSLRA), which statements may be identified by words such as "believe," "may", "will," "estimate," "continue," "anticipate," "intend," "expect" and other words of similar meaning. 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; our ability to submit an IND and successfully advance our technology platform to improve the safety and effectiveness of our existing TCR therapeutic candidates;

the rate and degree of market acceptance of T-cell therapy generally and of our TCR therapeutic candidates; government regulation and approval, including, but not limited to, the expected regulatory approval timelines for TCR therapeutic candidates; and our ability to protect our proprietary technology and enforce our intellectual property rights; amongst others. 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 Annual Report on Form 20-F filed with the Securities and Exchange Commission on October 13, 2015. We urge you to consider these factors carefully in evaluating the forward-looking statements herein and are cautioned not to place undue reliance on such forward-looking statements, which are qualified in their entirety by this cautionary statement. 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. We intend that all forward-looking statements be subject to the safe-harbor provisions of the PSLRA.

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