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Adaptimmune Announces Initiation of Triple Tumor Study to Evaluate its SPEAR® T-Cell Therapy Targeting MAGE-A10

- Collaborative Study is First under Strategic Alliance with MD Anderson Cancer Center -

PHILADELPHIA and OXFORD, United Kingdom, Oct. 18, 2016 (GLOBE NEWSWIRE) -- Adaptimmune Therapeutics plc (Nasdaq:ADAP), a leader in T-cell therapy to treat cancer, today announced that it has initiated a Phase I triple tumor study using its wholly owned MAGE-A10 SPEAR® (Specific Peptide Enhanced Affinity Receptor) T-cell therapy in patients with inoperable or metastatic urothelial cancer (transitional cell cancer of the bladder, ureter, or renal pelvis), melanoma, or squamous cell carcinoma of the head and neck.

This is the first collaborative study under the recently announced multi-year strategic alliance between Adaptimmune and The University of Texas MD Anderson Cancer Center, designed to expedite the development of novel adoptive T-cell therapies for multiple types of cancer. The two teams are collaborating in a number of areas including preclinical and clinical development of Adaptimmune's first and second generation SPEAR T-cell therapies across a number of cancers.

"We are excited to initiate this triple tumor study with our partners at MD Anderson," said Dr. Rafael Amado, Adaptimmune's Chief Medical Officer. "While important advances are being made with immune therapies in inoperable or metastatic tumors of the urothelium, and in melanoma and head and neck cancers, there remains a significant unmet medical need for more effective therapies for patients suffering with these cancers. It is our hope that this study will prove to be a positive first step towards the development of this SPEAR T-cell therapy in patients who are HLA-A2 positive and have advanced solid tumors expressing MAGE-A10."

This is a Phase I, open-label, modified 3+3 dose escalation study of autologous T-cells genetically engineered with an affinity optimized MAGE-A10 T-cell receptor in HLAA*0201 and HLA-A*0206 positive patients with inoperable or metastatic urothelial cancer (transitional cell cancer of the bladder, ureter or renal pelvis), melanoma, or squamous cell carcinoma of the head and neck expressing the MAGE-A10 antigen.

The study is part of a multi-center study intended to enroll up to 12 patients in leading clinical centers in the United States, with MD Anderson Cancer Center being the first site initiated, and will assess the safety and tolerability of Adaptimmune's affinity enhanced T-cell therapy targeting MAGE-A10. Secondary objectives will include the assessment of clinical efficacy,

measurements of durability of persistence of MAGE-A10 T-cells in the blood, and exploratory tumor biomarker studies and evaluations of the phenotype and functionality of MAGE-A10 T-cells.

About Urothelial, Melanoma, or Head and Neck Tumors

Urothelial Cancer

Ninety percent of urothelial cancers originate in the bladder, while 8 percent originate in the renal pelvis and two percent in the ureter or urethra. Non-muscle invasive urothelial bladder cancer comprises 70 percent of newly diagnosed bladder cancers. The American Cancer Society's estimates for bladder cancer in the United States for 2016 are about 76,960 new cases of bladder cancer (about 58,950 in men and 18,010 in women), and about 16,390 deaths from bladder cancer (about 11,820 in men and 4,570 in women). Bladder cancer accounts for about 5 percent of all new cancers in the United States. It is the fourth most common cancer in men. The average survival for metastatic urothelial bladder cancer is 12 to 15 months.

Melanoma

Melanoma is a cancer that begins in specific skin cells called melanocytes. Because most of these cells still make melanin, melanoma tumors are often brown or black, though this is not always the case. The American Cancer Society estimates that approximately 76,380 new melanomas will be diagnosed (about 46,870 in men and 29,510 in women), and about 10,130 people are expected to die of melanoma (about 6,750 men and 3,380 women) in the United States in 2016. The rates of melanoma have been rising for the last 30 years. Five-year survival for Stage 3 melanoma (lymphatic involvement) ranges from about 40 to 75 percent and for Stage 4 (metastatic) is approximately 15 to 20 percent in the United States. Patients with Stage 4 melanoma suffer an especially poor prognosis with a median survival of six to 10 months.

Squamous Cell Carcinoma of the Head and Neck

Cancers that are known collectively as head and neck cancers usually begin in the squamous cells that line the mucosal surfaces inside the head and neck (for example, inside the mouth, the nose, and the throat). These squamous cell cancers are often referred to as squamous cell carcinomas of the head and neck. There are two possible developmental paths for most head and neck cancers: environmental factors such as alcohol and tobacco, and HPV infection. Over the past 30 years, there has been a significant rise in the incidence of head and neck cancers caused by HPV. The majority of patients with head and neck cancer present with locally advanced disease. For those patients with stage III/IV locally advanced cancer, the prognosis is quite poor; 40 to 60 percent of patients relapse, and approximately 30 to 50 percent of patients live for 3 years after treatment with surgery and radiotherapy.

About Adaptimmune

Adaptimmune is a clinical stage biopharmaceutical company focused on novel cancer immunotherapy products based on its SPEAR® (Specific Peptide Enhanced Affinity Receptor) T-cell 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 a SPEAR T-cell therapy targeting the NY-ESO cancer antigen. Its NY-ESO SPEAR 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. Adaptimmune has a strategic collaboration and licensing agreement with GlaxoSmithKline for the development and commercialization of the NY-ESO TCR program. In addition, Adaptimmune has a number of proprietary programs. These include SPEAR T-cell therapies targeting the MAGE-A10 and AFP cancer antigens, which both have open INDs, and a further SPEAR T-cell therapy targeting the MAGE-A4 cancer antigen that is in pre-clinical phase with IND acceptance targeted for 2017. 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 250 employees and is located in Oxfordshire, U.K. and Philadelphia, USA. For more information: 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 August 8, 2016, 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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