June 2, 2018

Updated Myxoid/Round Cell Liposarcoma Data with NY-ESO, Presented at ASCO Annual Meeting, Further Supports Promising Benefit: Risk Profile

PHILADELPHIA and OXFORD, United Kingdom, June 02, 2018 (GLOBE NEWSWIRE) -- Adaptimmune Therapeutics plc (Nasdaq:ADAP), a leader in T-cell therapy to treat cancer, presented initial data from the ongoing pilot study of NY-ESO SPEAR T-cells in myxoid/round cell liposarcoma (MRCLS). With eight patients treated, the best overall responses include three confirmed partial responses, one unconfirmed partial response, three stable disease, and one recently treated patient awaiting assessment. These data were presented during an oral presentation by Dr. Sandra P. D'Angelo of the Memorial Sloan Kettering Cancer Center at the American Society of Clinical Oncology (ASCO) annual meeting.

GlaxoSmithKline plc (LSE:GSK) (NYSE:GSK) exercised its option to exclusively license the right to research, develop, and commercialize the NY-ESO SPEAR T-cell therapy program in September 2017. Transition of this program to GSK is ongoing.

"We continue to see responses in patients with advanced MRCLS who have failed previous standard chemotherapy," said Rafael Amado, Adaptimmune's Chief Medical Officer. "We observe significant proliferation of our SPEAR T-cells in peripheral blood, and infiltration into metastases that were previously devoid of inflammatory cells. These findings bode well for a broad therapeutic potential of SPEAR T-cells across multiple solid tumors."

Data Update from the Ongoing NY-ESO MRCLS Study

During an oral presentation on June 2nd entitled, "Pilot Study of NY-ESO-1c259T Cells in Advanced Myxoid/Round Cell Liposarcoma," Dr. D'Angelo presented an update from this ongoing study (data cut-off May 23 2018).

- **Responses:**
  - Best overall responses include 3 confirmed partial responses, 1 unconfirmed partial response, 3 patients with stable disease, and 1 recently treated patient awaiting assessment
  - There is an overall trend in tumor burden decrease among the majority of patients
  - The tumor burden decrease across target lesions ranged from 16.9% to 50%
  - Three patients have now progressed
- **Safety:** Thus far, data indicate that NY-ESO SPEAR T-cells remain generally well tolerated in this patient population:
  - There was one event of cytokine release syndrome (CRS) ≥ Grade 3, which was characterized by fever, hypotension, rash, headache, and supraventricular

tachycardia. The patient was treated with tociluzumab. The CRS resolved six days post-infusion.
    - There were four SAEs reported by three patients:
        - Grade 3 CRS (noted above), which resolved
        - Two Grade 2 events of CRS, both of which resolved
        - Grade 2 pleural effusion, which improved with treatment and the patient was subsequently discharged from hospital
    - Most adverse events were consistent with those typically experienced by cancer patients undergoing cytotoxic chemotherapy or cancer immunotherapies
- **SPEAR T-cell persistence:** Although data are preliminary, there appears to be a correlative trend between SPEAR T-cell persistence and response.

Overview of Study Design

- Open-label, non-randomized pilot study evaluating the safety, tolerability, and antitumor activity of NY-ESO SPEAR T-cells in patients with MRCLS
- Initially, 10 patients are planned to be enrolled, with potential to enroll an additional 5 patients. Patients who do not receive the minimum cell dose or who do not receive the T-cell infusion may be replaced
- Patients must be: ≥ 18 years old; HLA-A*02:01, *02:05, or *02:06 positive; have advanced (metastatic or inoperable) MRCLS expressing NY-ESO-1 at 2+/3+ intensity in ≥30% of tumor cells by immunohistochemistry (IHC); measurable disease; prior systemic anthracycline therapy; have ECOG status 0 or 1; and adequate organ function
- Lymphodepletion regimen: fludarabine (30mg/m^2/day) and cyclophosphamide (600 mg/m^2/day) for 3 days; same as Cohort 4 in Synovial Sarcoma study
- Target dose of 1 – 8 × 10^9 transduced SPEAR T-cells
- Efficacy assessed by overall response rate, time to response, duration of response, progression-free survival, and overall survival at weeks 4, 8, and 12, month 6, and then every 3 months until confirmation of disease progression
- This study is open and actively enrolling

More about Soft Tissue Sarcomas

MRCLS and synovial sarcoma are both considered soft tissue sarcomas. MRCLS is a type of liposarcoma, characterized by the proliferation of adipocyte (fat cell) precursors called lipoblasts that have stopped differentiating. This malignancy arises from a translocation between chromosomes 12 and 16 resulting in a fusion protein that blocks adipocyte differentiation and promotes malignant transformation. Synovial sarcoma is characterized by a different chromosomal translocation involving the X chromosome and chromosome 18 and, unlike the known immature fat cell cellular origin of MRCLS, the cell of origin for synovial sarcoma remains unknown.

It is estimated that there are approximately 2000 patients in the United States and Europe with MRCLS each year. MRCLS has a peak incidence of occurrence in patients who are 30 to 50 years of age and it typically follows a more aggressive course than other liposarcomas. MRCLS also exhibits a unique presentation pattern arising first in the proximal areas of the extremities and typically spreading to the bones (particularly the spine), serosal surfaces, retroperitoneum, abdomen, pelvis, as well as to other soft tissues. This metastatic pattern is different from the characteristic pulmonary spread exhibited by synovial sarcoma.

Conference Call Information
The Company will host a live teleconference to answer questions about the updated safety data on June 4, 2018 at 8:00 a.m. EDT (1:00 p.m. BST). The live webcast of the conference call will be available via the events page of Adaptimmune's corporate website at https://bit.ly/2shwniM. An archive will be available after the call at the same address. To participate in the live conference call, if preferred, please dial please dial +1-(833) 652-5917 (U.S.) or +1-(430) 775-1624 (International). After placing the call, please ask to be joined into the Adaptimmune conference call and provide the confirmation code (9199456).

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, -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-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 filed on form 10-Q with the Securities and Exchange Commission (SEC) on May 9, 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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