UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16
OF THE SECURITIES EXCHANGE ACT OF 1934

For the Month of July, 2015

Commission File Number: 001-37368

ADAPTIMMUNE THERAPEUTICS PLC

(Translation of registrant's name into English)

101 Park Drive, Milton Park
Abingdon, Oxfordshire OX14 4RY
United Kingdom
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Yes ☐ No ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Yes ☐ No ☐

Other Events

On July 20, 2015, Adaptimmune Therapeutics plc (the "Company") issued a press release announcing that data from its phase I/II study of its affinity enhanced T-cell receptor (TCR) therapeutic targeting the NY-ESO-1 cancer antigen in patients with multiple myeloma has been published in *Nature Medicine.* The press release is attached as Exhibit 99.1 and is incorporated by reference herein.

Exhibits

99.1 Press release dated July 20, 2015

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Adaptimmune Therapeutics plc

By: /s/ Margaret Henry
Name: Margaret Henry
Title: Corporate Secretary

Date: July 20, 2015

Adaptimmune's NY-ESO-1 TCR-engineered T-Cells Demonstrate Durable Persistence, Clinical Activity and Tolerability in Clinical Study in Multiple Myeloma Patients

Data published in Nature Medicine

PHILADELPHIA, Pa. and OXFORD, UK., July 20, 2015 — Adaptimmune Therapeutics plc (Nasdaq: ADAP), a clinical stage biopharmaceutical company focused on the use of T-cell therapy to treat cancer, today announced that data from its Phase I/II study of its affinity enhanced T-cell receptor (TCR) therapeutic targeting the NY-ESO-1 cancer antigen in patients with multiple myeloma has been published in *Nature Medicine.* The paper entitled *NY-ESO-1 Specific TCR Engineered T-cells Mediate Sustained Antigen-specific Antitumor Effects in Myeloma* by Drs. Aaron P. Rapoport, Edward Stadtmauer and Gwendolyn Binder-Scholl *et al.* describes the persistence and tumor trafficking, antitumor effect and safety profile of Adaptimmune's NY-ESO TCR therapeutic (ADAP NY-ESO TCR) in 20 patients with advanced multiple myeloma. The paper became available through advance online publication on July 20, 2015, and will appear in the August 2015 print edition of *Nature Medicine.*

This is the first published study of lentiviral vector mediated TCR gene expression in humans. Novel findings include encouraging clinical responses, prolonged duration of persistence of TCR engineered cells and continued expression of the TCR on the cell surface; which is a departure from previously published studies in TCR gene therapy. In addition, high levels of IL-6 were detected, without serious cytokine release syndrome, which is in contrast to the side effects observed with multiple antibody-based CD19 immunotherapeutics to date. Clinical response rates were higher than expected for the patient population enrolled, and evidence supporting the expected mechanism of action of the TCR engineered cells was found.

"We believe these are significant data for Adaptimmune and for the cancer gene therapy field," commented Dr. Rafael Amado, Adaptimmune's Chief Medical Officer. "The trial showed that autologous transduced cells can be safely administered to patients with advanced myeloma in the context of stem cell transplantation, and that the transduced cells persist for a prolonged period of time. There was also encouraging evidence of antitumor effect which supports further investigation of cell and gene therapy in myeloma."

The publication describes results of a Phase I/II trial to evaluate the safety and activity of autologous T-cells engineered to express an affinity-enhanced T-cell receptor (TCR) recognizing a naturally processed peptide shared by the cancer-testis antigens NY-ESO-1 and LAGE-1. All enrolled patients had symptomatic myeloma with active disease, representing an advanced stage population. Five patients (25 percent) had prior autologous stem cell transplant (ASCT) and 12 (60 percent) with cytogenetic abnormalities, including seven categorized as high-risk. After autologous stem cell collection, patients were conditioned with high-dose melphalan followed two days later by autologous stem cell infusion (ASCT). Patients received ADAP NY-ESO TCR (an average of 2.4 billion NY-ESO^{c259}-engineered CD3 T-cells) two days after ASCT.

Clinical Results

Encouraging clinical responses were observed in 16 patients (80 percent) in the study: Of the 20 patients, 14 patients (70 percent) had a near complete response or complete response, and another two had a very good partial response (VGPR) by three months post treatment. According to the authors, this compares favorably to the expected response frequencies following ASCT or double sequential (tandem) ASCT where response rates are typically less than 40 percent in patients without high risk disease.

Persistence and the manufacturing method

Persistence of gene modified cells in the patients was prolonged. In this study, 19/20 patients continued to have gene marked cells detectable in blood at six months post infusion, and long term persistence of engineered cells in the peripheral blood was detectable in 90 percent of patients who reached two years follow up. Continued TCR expression was detected at two years, which suggested gene silencing was not occurring. Engineered T-cells also trafficked to sites of tumor; a majority of patients (15/20) underwent marrow biopsy for response assessment at day 100; 14/15 had detectable engineered cells. Previous studies with engineered T-cells (Burns et al., 2009; Robbins et al., 2014) reported no demonstrated persistence and expression beyond one month.

The method of T-cell manufacture may be key to enabling persistence; CD3/CD28 costimulation was used to manufacture cells in this study, and as well as in CAR studies for CD19 and HIV by the coauthors, and all of these studies demonstrate long term persistence of gene marked cells. This technology induces activation of the T-cell receptor through CD3 and simultaneous costimulation to the T-cells though the CD28 receptor. This selects for younger T-cells and also helps to program them for prolonged expansion. Adaptimmune holds an exclusive license from ThermoFisher (formerly Life Technologies Corporation) for methods of expanding and activating T-cells transduced with engineered T-cell receptors (TCR), including use of the ThermoFisher DynaBeads® CD3/CD28 technology.

Tolerability Profile

Infusions were well-tolerated without clinically apparent cytokine release syndrome (CRS), or macrophage activation syndrome (MAS), despite high IL-6 levels. The observation of safety is a significant finding; CRS and MAS have been reported as significant safety concerns in multiple antibody-based CD19 immunotherapeutics to date. This differentiated safety profile may be related to physiological signaling and/or the antigen target and expression levels.

Anti-tumor activity

To evaluate antigen-specific anti-tumor activity of the engineered T-cells, RNA transcript levels in marrow specimens were quantitatively measured for NY-ESO-1 and LAGE-1, as well as CD138 as a measure of myeloma/plasma cell burden. Relative to levels at enrollment, loss of NY-ESO-1 and LAGE-1 transcripts was observed in 12/15 patients at day 100, and in 11/13 at day 180. At day 100, 3/15 patients had detectable levels of NY-ESO-1 and LAGE-1 transcripts. Notably, disease relapse was correlated with antigen escape (loss of NY-ESO and Lage expression in 2/10 cases) or loss of engineered T-cells (8/10 patients).

"These data suggest that treatment with enhanced NY-ESO-1/LAGE-1 TCR-engineered T-cells is not only safe but of potential clinical benefit to patients with certain types of aggressive multiple myeloma," said Aaron P. Rapoport, MD, the Gary Jobson Professor in Medical Oncology at the University of Maryland School of Medicine and the Director of the Blood and Marrow Transplant Program at the University of Maryland Marlene and Stewart Greenebaum Cancer Center. "This study establishes a strong foundation for further research in cellular immunotherapy of myeloma. We hope to investigate additional combination approaches to boost the durability and function of the engineered T-cells to achieve even longer and deeper clinical responses."

"This is the first report of TCR engineered T-cell therapy that has shown durable persistence in patients," said Dr. Carl June,Richard W. Vague Professor in Immunotherapy,

Department of Pathology and Laboratory Medicine, University of Pennsylvania. “These data are encouraging for the TCR platform, which I believe will be an important technology due to its ability to target intracellular antigens.”

About Multiple Myeloma

Multiple myeloma is a cancer formed by malignant plasma cells. Normal plasma cells are found in the bone marrow and are an important part of the immune system, which is made up of several types of cells that work together to fight infections and other diseases. Multiple myeloma is characterized by several features, including low blood counts, bone and calcium problems, infections, kidney problems, monoclonal gammopathy, and others; and by the proliferation of these plasma cells within bone marrow. The American Cancer Society estimates that approximately 26,850 new cases will be diagnosed in the United States in 2015. Average five-year survival rates are estimated to be less than 45 percent with survival rates depending on factors such as age, stage of diagnosis and suitability for auto-SCT, which is used as part of the treatment for eligible patients with multiple myeloma. Despite recent therapeutic advances, multiple myeloma remains an incurable but treatable cancer. Patients are typically treated with repeat rounds of combination therapy with the time intervals to relapse becoming shorter with each successive line of therapy. The majority of patients eventually have a relapse which cannot be further treated.

About Adaptimmune

Adaptimmune is a clinical stage biopharmaceutical company focused on novel cancer immunotherapy products based on its T-cell receptor 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 T-cell receptors (TCRs) as a means of strengthening natural patient T-cell responses. Adaptimmune’s lead program is an affinity enhanced TCR therapeutic targeting the NY-ESO cancer antigen. Its NY-ESO TCR therapeutic candidate has demonstrated signs of efficacy and tolerability in Phase 1/2 trials in solid tumors and in hematologic cancer types. 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 TCR therapeutic candidate, directed at MAGE A-10, is scheduled to enter the clinic in 2015. The Company has identified over 30 intracellular target peptides preferentially expressed in cancer cells and is currently progressing eight of these through unpartnered research programs. Adaptimmune has over 100 employees and is located in Oxfordshire, UK and Philadelphia, USA. For more information: http://www.adaptimmune.com

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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 final Prospectus filed with the Securities and Exchange Commission on May 7, 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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