UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

Current Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 7, 2019

ADAPTIMMUNE THERAPEUTICS PLC

(Exact name of registrant as specified in its charter)

1-37368 (Commission File Number) Not Applicable (IRS Employer Identification No.)

England and Wales (State or other jurisdiction of incorporation)

60 Jubilee Avenue, Milton Park Abingdon, Oxfordshire OX14 4RX

(Address of principal executive offices, including zip code)

(44) 1235 430000

(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 §230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 8.01 Other Events.

On January 7, 2019, Adaptimmune Therapeutics plc(the "Company" or "Adaptimmune") issued a press release announcing that the Safety Review Committee (SRC) has endorsed dose escalation in the Company's ongoing ADP-A2AFP (AFP) study in patients with hepatocellular carcinoma (liver cancer) to the second dose cohort, and that the SRC has also endorsed moving to the expansion phase of the Company's ADP-A2M10 (MAGE-A10) lung cancer study. The press release is furnished as Exhibit 99.1 to this report and is incorporated by reference herein.

The information in Item 8.01 of this Form 8-K, including the attached Exhibit 99.1, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, (the "Exchange Act"), or incorporated by reference in any filing made by the Company under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by the Company by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description of Exhibit	
99.1	Press release dated January 7, 2019.	
	2	

SIGNATURES

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

ADAPTIMMUNE THERAPEUTICS PLC

Date: January 7, 2019

By: /s/ Margaret Henry

Name: Margaret Henry Title: Corporate Secretary



Dose Escalation in Liver Cancer Study with ADP-A2AFP (AFP) SPEAR T-cells and Moving to Expansion Phase in ADP-A2M10 (MAGE-A10) Lung Cancer Study after Favorable Safety Reviews

PHILADELPHIA and OXFORD, United Kingdom, January 7, 2019 — Adaptimmune Therapeutics plc (Nasdaq:ADAP), a leader in T-cell therapy to treat cancer, today announced that the Safety Review Committee (SRC) has endorsed dose escalation in the ongoing ADP-A2AFP (AFP) study in patients with hepatocellular carcinoma (liver cancer) to the second dose cohort. The SRC has also endorsed moving to the expansion phase of the ADP-A2M10 (MAGE-A10) lung cancer study.

Across both studies, most adverse events have been consistent with those typically experienced by cancer patients undergoing cytotoxic chemotherapy or other cancer immunotherapies with no evidence of alloreactivity or toxicity related to off-target binding.

In the ADP-A2AFP study, two patients have received 100 million transduced SPEAR T-cells targeting AFP in the first dose cohort, and there was no evidence of hepatotoxicity. The SRC endorsed dose escalation after evaluating the first two patients and taking into consideration the benefit:risk profile observed across programs in Cohort 1.

In the ADP-A2M10 lung cancer study, ten patients have been treated in the first three cohorts (up to six billion transduced cells), and the expansion phase will allow for doses of up to ten billion transduced cells (range 1.2 to 10 billion).

"We are pleased that the SRC has endorsed moving to the expansion phase of the ADP-A2M10 lung cancer study. Additionally, our ADP-A2AFP study has progressed to the next dose level of 1 billion transduced cells. Importantly, we did not observe liver toxicity in the two patients treated at a dose of 100 million transduced cells. In our other studies, we continue to enroll in the expansion phases and, as we previously have said, we are on track to report our next clinical data by May this year," said Rafael Amado, Adaptimmune's President of Research & Development.

Overview of ADP-A2AFP (AFP) Study Design

- This is a first-in-human, open-label study utilizing a modified 3+3 design in up to 36 patients with escalating target doses of 100 million (Cohort 1), 1 billion (Cohort 2), and 1.2-6 billion (Cohort 3) transduced SPEAR T-cells to evaluate safety, including dose limiting toxicities (DLTs) followed by an expansion phase with doses of up to 10 billion SPEAR T-cells
- · This trial is being conducted in patients with hepatocellular carcinoma
- There was a 21-day stagger between patients in Cohort 1, with this stagger dropping to 7 days in Cohorts 2, and 3 in the absence of DLTs. There is no pre-determined stagger in the expansion phase
- · Cohorts 1-3 were intended to enroll 3 patients each with an expansion to 6 patients if DLTs were observed
- The expansion phase can enroll up to 30 patients
- The lymphodepletion regimen is fludarabine (flu) (20mg/m²/day) and cyclophosphamide (cy) (500 mg/m²/day) for 3 days
- Efficacy is assessed by overall response rate, time to response, duration of response, progression-free survival, and overall survival at weeks 4, 8, and 16, month 6, and then every 3 months until confirmation of disease progression

Overview of ADP-A2M10 (MAGE-A10) Lung Cancer Study Design

- This is a first-in-human, open-label study utilizing a modified 3+3 design in up to 28 patients with escalating target doses of 100 million (Cohort 1), 1 billion (Cohort 2), and 1.2-6 billion (Cohort 3) transduced SPEAR T-cells to evaluate safety, including DLTs followed by an expansion phase with doses of up to 10 billion SPEAR T-cells
- · This trial is being conducted in patients with non-small cell lung cancer (NSCLC)
- There was a 21-day stagger between patients in Cohort 1, with this stagger dropping to 7 days in Cohorts 2, and 3 in the absence of DLTs. There is no pre-determined stagger in the expansion phase
- · Cohorts 1-3 were intended to enroll 3 patients each with an expansion to 6 patients if DLTs were observed
- The expansion phase can enroll up to 10 patients
- The lymphodepletion regimen is cyclophosphamide (1800 mg/n²/day) for 2 days in Cohort 1, fludarabine (flu) (30mg/m²/day) and cyclophosphamide (cy)
- $(600 \text{ mg/m}^2/\text{day})$ for 3 days in Cohort 2, and Cy $(600 \text{ mg/m}^2/\text{d})$ x 3 days + Flu $(30 \text{ mg/m}^2/\text{d})$ X 4 days in Cohort 3
- Efficacy is assessed by response rate, duration of response, progression-free survival, and overall survival at weeks 4, 8, and 12, month 6, and then every 3 months (for 2 years) and then every 6 months until confirmation of disease progression

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, MAGE-A10, and AFP across multiple solid tumor indications. 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 on Form 10-Q filed with the Securities and Exchange Commission (SEC) on November 6, 2018, and our other SEC filings. The forward-looking statements to reflect subsequent events or circumstances.

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2