May 29, 2020

SPEAR T-cells Targeting MAGE-A4 Demonstrate New Responses in Esophagogastric Junction (EGJ), Lung, and Head and Neck Cancers – Late Stage Development Initiated in EGJ Cancer

- New Phase 2 trial in EGJ cancer planned for 1H 2021, after first two patients treated responded to next-generation ADP-A2M4CD8 therapy -

- Durability and efficacy data presented at ASCO support potential for SPEARHEAD-1 as a registrational trial for sarcoma - commercial launch planned in the US in 2022 -

- Phase 2 trial combining ADP-A2M4 with pembrolizumab in head and neck cancer (SPEARHEAD-2) will be the first time a SPEAR T-cell therapy is used in sequence with first line systemic therapy -

- The SURPASS trial (a Phase 1 trial with ADP-A2M4CD8) will focus on lung, EGJ, head and neck, and bladder cancers -

- Confirmed complete response in a patient with liver cancer in the Phase 1 ADP-A2AFP trial (reported as partial response in January) -

PHILADELPHIA and OXFORDSHIRE, United Kingdom, May 29, 2020 (GLOBE NEWSWIRE) -- Adaptimmune Therapeutics plc (Nasdaq:ADAP), a leader in cell therapy to treat cancer, presented updated data from its ADP-A2M4 Phase 1 trial at the American Society for Clinical Oncology (ASCO) Annual Meeting. The data demonstrate durability and responses in synovial sarcoma, supporting SPEARHEAD-1 as a potential registrational trial. The ASCO presentation also describes a new response in a patient with lung cancer, and a response in a patient with head and neck cancer (reported in January).

The Company also announced new responses in the SURPASS trial, confirming the potential for SPEAR T-cell therapies targeting MAGE-A4 to treat a broad range of cancers in addition to sarcoma. These data further support the rationale for two new Phase 2 trials – SPEARHEAD-2 in head and neck cancer, which will begin later this year, and a second trial in esophagogastric junction (EGJ) cancer planned for 1H 2021. A webcast of Dr. Elliot Norry, Adaptimmune's Chief Medical Officer, and Adrian Rawcliffe, Adaptimmune's Chief Executive Officer, summarizing these and other clinical data is available here: https://bit.ly/3enqBBy.

"I am pleased to announce that we have identified a new indication to progress into late stage development. We plan to initiate a Phase 2 trial in esophagogastric junction cancer in the first half of 2021, with our next-generation ADP-A2M4CD8 SPEAR T-cells. In addition, the ASCO data demonstrate promising durability for ADP-A2M4 in sarcoma bolstering our

ambition to have our first marketed therapy in 2022," said Adrian Rawcliffe, CEO. "I'm thrilled with the responses in a broad range of tumors with our programs targeting MAGE-A4 and AFP. I am confident that we will be able to identify more indications for late stage development as more patients are treated in our trials."

During an oral presentation at ASCO, Dr. David Hong of the MD Anderson Cancer Center reported positive durability and efficacy data in synovial sarcoma from the ADP-A2M4 Phase 1 trial. Based on these data, the Company believes that SPEARHEAD-1 can support registration for ADP-A2M4. These positive data also supported removal of the futility analysis from SPEARHEAD-1, reducing the sample size from 60 to 45 patients.

Outside of sarcoma, Dr. Hong shared a new RECIST response in a patient with lung cancer, as well as the response in a patient with head and neck cancer reported earlier this year. Further, he reported evidence of anti-tumor activity in ovarian cancer, bladder cancer, and melanoma.

In the SURPASS trial, three patients have responded out of the first four treated with ADP-A2M4CD8. One patient with EGJ cancer treated in the first dose cohort had a confirmed partial response (PR) reported in January, which remains ongoing approximately six months post-infusion. As reported today, a second patient in the first dose cohort, also with EGJ cancer, has an unconfirmed PR. The third response in the trial is an unconfirmed PR in a patient with head and neck cancer. Data from this trial will be updated and presented in the second half of 2020 at a medical conference. Based on these data, the Company plans to initiate a Phase 2 trial in EGJ cancer in the first half of 2021.

In January, the Company reported one confirmed PR in a patient with liver cancer from the ADP-A2AFP Phase 1 trial. Subsequently, this PR has been assessed as a confirmed complete response, which remained ongoing at the last assessment (Week 24). The next two patients with liver cancer (or hepatocellular carcinoma [HCC]) treated in Cohort 3 did not respond. A separate cohort for AFP expressing tumors other than HCC was initiated and the one patient treated to date has not responded. Detailed data will be presented in a poster and an oral presentation at the International Liver Congress (ILC) in August 2020 (rescheduled from April of this year).

RECIST Responses with SPEAR T-cell Monotherapy in Patients with Late Stage Cancers*

Indication	Responses/(n) [a]	SPEAR T-cell Target	SPEAR T-cell product demonstrating responses	New response reported today
Synovial sarcoma	8 PR [b] / 16	MAGE-A4	ADP-A2M4	Yes
Head and neck	2 PR [b] / 4	MAGE-A4	ADP-A2M4/ ADP-A2M4CD8	Yes
EGJ	2 PR [b] / 3	MAGE-A4	ADP-A2M4CD8	Yes
Lung	1 PR / 2	MAGE-A4	ADP-A2M4	Yes
Melanoma	1 PR [c] / 2	MAGE-A4	ADP-A2M4	No
Liver (HCC)	1 CR [d] / 3	AFP	ADP-A2AFP	No

a: n=number of patients treated; b: includes one unconfirmed PR; c: patient treated in radiation sub-study of ADP-A2M4 Phase 1 trial; d: previously assessed as PR
CR=complete response; EGJ=esophagogastric junction; HCC=hepatocellular carcinoma; PR=partial response

* As of May 2020

ADP-A2M4 clinical update

- ASCO**:** Oral presentation by Dr. David Hong titled: “Phase 1 Dose Escalation and Expansion Trial to Assess Safety and Efficacy of ADP-A2M4 in Advanced Solid Tumors”
    - Synovial sarcoma data
        - 50% response rate with inclusion of unconfirmed PR assessed after data cut-off (44% response rate without inclusion of unconfirmed PR)
        - Median duration of response ~28 weeks, progression free survival ~20 weeks, median overall survival not reached
        - 3 out of the 7 responders have continued to benefit as of their one year assessments
        - Disease control rate of 90% defined by best overall response (BOR) of PR or stable disease (SD) at time of data cut off (April 6, 2020)
    - Other cancer indications
        - Confirmed responses in lung cancer (reported today) and head & neck cancer (as reported in January)
        - Of note, there was a response in a patient with rectal mucosal melanoma from the radiation sub-study of this trial (still recruiting) reported in January, which remains ongoing at Week 24. This patient was not part of the ASCO dataset
    - Most adverse events were consistent with those typically experienced by cancer patients undergoing lymphodepletion cytotoxic chemotherapy, and cellular therapy
    - Trial closed for enrollment with the exception of ongoing recruitment in the low-radiation sub-study

- SPEARHEAD-1
    - Intended to be a registrational trial
    - Based on the strength of the ADP-A2M4 Phase 1 data, futility analysis removed reducing the sample size from 60 to 45 patients
    - Recruiting patients in 20 centers in Canada, France, Spain, and the US
    - Screened more than half the patients likely required to complete the trial
    - Currently, there are more than 30 patients identified who would be eligible based on HLA and MAGE-A4 expression
    - Aim to complete SPEARHEAD-1 recruitment by 1H 2021 and launch in the US in 2022

Other trials in the MAGE-A4 program

SURPASS

- Out of the first 4 patients treated (2 with EGJ cancer; 1 with ovarian cancer, 1 with head and neck cancer) 3 have been assessed as PRs (1 confirmed)
    - 2 patients with EGJ cancer (1 confirmed PR announced in January and a second unconfirmed PR announced today)
    - 1 patient with head and neck cancer with an unconfirmed PR
- Based on the responses in EGJ cancer, the Company plans to initiate a new Phase 2

trial in this indication
    - Planning to present the full trial design in 2H 2020 and to initiate the trial in 1H 2021
- Enrollment in the SURPASS trial will focus on indications for which there have been early signs of efficacy, including responses, with SPEAR T-cells targeting MAGE-A4. These indications include lung, EGJ, head & neck, and bladder cancers
- Cohorts 2 and 3 were merged and 3 patients will be treated in this new group with up to 5 billion SPEAR T-cells, before moving into the expansion phase (subject to safety)
- Data will be presented at an upcoming medical oncology congress in 2H 2020

SPEARHEAD-2

- The trial will enroll 10 patients with head and neck cancer combining ADP-A2M4 with pembrolizumab following initiation of first line pembrolizumab in the relapsed/metastatic setting
- This will be the first time that a SPEAR T-cell will be used in sequence with first line systemic therapy
- All patients will be apheresed and have their cells manufactured with the intent of having their SPEAR T-cells available by the time of their first assessment on pembrolizumab
- Patients who do not respond to pembrolizumab (published response rate ~20%) or who progress after an initial response will receive SPEAR T-cells and continue to receive pembrolizumab
- All clinical sites are in the process of being initiated

ADP-A2AFP clinical trial

- There is one confirmed complete response, reported in January as a PR, in a patient with liver cancer – the first patient treated at target dose in Cohort 3
- The next two patients in this cohort did not respond
- Following requests from investigators, the Company opened a cohort for patients with non-hepatocellular carcinoma tumors that express AFP and the one patient treated in this cohort has also not responded
- Data will be presented at the International Liver Congress in August

About Adaptimmune
Adaptimmune is a clinical-stage biopharmaceutical company focused on the development of novel cancer immunotherapy products for people with cancer. The Company's unique SPEAR® (Specific Peptide Enhanced Affinity Receptor) T-cell platform enables the engineering of T-cells to target and destroy cancer across multiple solid tumors.

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 SEC on May 14, 2020, 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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