January 9, 2023

Publication of Data from Adaptimmune's Completed Phase 1 Trial with Afami-cel in Nature Medicine Demonstrating an Acceptable Safety Profile and Encouraging Responses in Synovial Sarcoma

-The response rate was 44% in patients with late-stage, metastatic synovial sarcoma after a single dose of afami-cel -

- Based on these results, the Company initiated a Phase 2 trial with afami-cel for people with sarcoma, SPEARHEAD-1, and these data are being used to support a rolling BLA submission for approval -

Philadelphia, Pennsylvania and Oxford, United Kingdom--(Newsfile Corp. - January 9, 2023) - Adaptimmune Therapeutics plc (NASDAQ: ADAP), a leader in cell therapy to treat cancer, today announced the publication of data in the current issue of *Nature Medicine* from its completed, multi-center, open-label, first-in-human, dose escalation Phase 1 trial with afami-cel (NCT03132922). Afami-cel is an investigational, engineered T-cell receptor (TCR) T-cell therapy targeting the cancer testis antigen MAGE-A4 which is expressed across multiple solid tumor indications.

"The potential of afami-cel to transform the treatment landscape for people with synovial sarcoma was evident in this Phase 1 trial and we are eager to provide this new therapeutic option," said Dennis Williams, PharmD, Senior VP of Late-Stage Development. "These data also informed our next-generation MAGE-A4 targeted product which we designed to be more potent. This product, ADP-A2M4CD8, is being evaluated in our SURPASS family of trials and we have reported a response rate of 52% in ovarian, urothelial, and head & neck cancers."

Thirty-eight patients were treated with a single dose of afami-cel after undergoing lymphodepleting chemotherapy with cyclophosphamide and fludarabine. Patients were treated across nine different MAGE-A4 expressing solid tumor indications including esophageal, gastric, head & neck, melanoma, non-small cell lung cancer, ovarian, urothelial, myxoid/round cell liposarcoma, and synovial sarcoma. The primary endpoint was safety and antitumor activity was also evaluated.

Overall, the safety findings are consistent with those observed in cancer patients undergoing lymphodepleting chemotherapy and cellular therapy. Prolonged cytopenia, cytokine release syndrome (CRS), and neurotoxicity were three treatment-emergent adverse events of special interest. Forty-five percent of patients had at least one prolonged Grade ≥3 cytopenia after lymphodepletion and T-cell infusion, but the incidence of clinical sequelae was low. Afami-cel−related CRS occurred in 55% of all patients and was typically low grade, early

onset post-infusion, and reversible in all cases with the administration of anti−IL-6(R) monoclonal antibody treatment when indicated. The overall incidence and severity of immune effector cell−associated neurotoxicity syndrome (ICANS)/encephalopathy were low, with no reported cases in synovial sarcoma patients.

The overall response rate was 24% (9/38) and most patients with responses had high MAGE-A4 expression by H-score. The response rate was primarily driven by the 7 clinical responses in patients with synovial sarcoma and 2 additional responses in head & neck and lung cancer patients. Among the 16 heavily pre-treated patients with late-stage metastatic synovial sarcoma who received a single dose of afami-cel, the response rate was 44% and durability was encouraging.

Exploratory analyses showed that afami-cel infiltrates tumors, has an interferon-γ-driven mechanism of action, and triggers adaptive immune responses. Persistence of afami-cel was also detected in post-infusion blood samples up to 18 months after treatment.

About afami-cel (afamitresgene autoleucel) and synovial sarcoma
Afami-cel is an investigational, first-generation engineered T-cell receptor (TCR) therapy targeting MAGE-A4, an antigen expressed across a broad range of solid tumors including synovial sarcoma. In December 2022, Adaptimmune announced the initiation of a rolling biologics licensing application (BLA) submission for the treatment of patients with advanced synovial sarcoma, with an expected completion of the submission in mid-2023. The application will be eligible for priority review under the FDA's regenerative medicine advanced therapy (RMAT) program. Synovial sarcoma is a rare cancer with historically limited treatment options and poor prognosis for advanced patients who fail first line treatment. The five-year overall survival rate for advanced patients is less than 20 percent.

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 Annual Report on Form 10-K filed with the Securities and Exchange Commission for the year ended December 31, 2021, our Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and other filings with the Securities and Exchange Commission. 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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