March 14, 2021

Atara Biotherapeutics Presents New Long-Term Overall Survival Data from a Combined Analysis of Phase 2 Tab-cel® Studies for Epstein-Barr Virus-Driven Post-Transplant Lymphoproliferative Disease at The EBMT 2021 Annual Meeting

Over 80 percent overall survival rates at two years among patients with complete response (CR) as well as among patients with partial response (PR)

SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)-- Atara Biotherapeutics, Inc. (Nasdaq: ATRA), a pioneer in T-cell immunotherapy, leveraging its novel allogeneic EBV T-cell platform to develop transformative therapies for patients with serious diseases including solid tumors, hematologic cancers and autoimmune disease, today announced a combined long-term overall survival (OS) analysis from three clinical studies of tabelecleucel (tab-cel®) in patients with Epstein-Barr virus-driven post-transplant lymphoproliferative disease (EBV^+ PTLD) after hematopoietic cell transplantation (HCT). The results were featured in an oral presentation at the 47th Annual Meeting of the European Society for Blood and Marrow Transplantation (EBMT 2021), taking place virtually from March 14 - 17, 2021.

Combined analysis from these investigator-assessed studies demonstrates patients with EBV^+ PTLD after HCT that is relapsed or refractory (R/R) to rituximab who achieved either complete or partial response (CR or PR) after treatment with tab-cel® derived similar OS benefit. Treatment response and OS data were assessed from two completed single-arm, Phase 2 studies (NCT00002663, NCT01498484) and the multi-center expanded access protocol (EAP-201) study (NCT02822495).

“Patients who develop EBV^+ PTLD that is relapsed or refractory to rituximab after receiving hematopoietic cell transplant rapidly decline, with a median overall survival of only a few months,” said Jakob Dupont, M.D., Head of Global Research & Development at Atara. “Their prognosis is poor and time is of the essence for this high-risk population. Data from across three clinical studies suggest that tab-cel® may provide an effective treatment option marked by long-term overall survival regardless of partial or complete response.”

Atara has previously shown clinical benefit in patients with EBV^+ PTLD after HCT who responded (CR or PR) to tab-cel® treatment, including an 86 percent two-year survival rate. Aggregated data presented at EBMT 2021 show patients who achieved a PR have similar one- and two-year probability of OS after tab-cel® treatment to those who achieved a CR. All patients received tab-cel® dose of $2x10^6$ cells/kg on days 1, 8, and 15 in a 35-day treatment

cycle. Patients received a median of two cycles (range, 1-5).

This data set included 50 HCT recipients who developed EBV$^+$ PTLD R/R to rituximab that were treated with tab-cel®. Objective response rate (PR + CR) was 62 percent (31/50) with best overall response (BOR) of CR (n=24) or PR (n=7). Similar one-year survival rates of 86.7 and 85.7 percent and two-year survival rates of 81.6 and 85.7 percent for patients with CR and PR, respectively were observed. Treatment was generally well-tolerated, with no confirmed evidence for graft-versus-host disease (GvHD), cytokine release syndrome (CRS) or neurotoxicity attributable to tab-cel®.

“We are inspired by the consistency and clinical relevance of the tab-cel® data presented today, showing once again high overall response rates and favorable long-term survival in patients with EBV$^+$ PTLD following HCT,” said Pascal Touchon, President and Chief Executive Officer of Atara. “Atara is moving with a sense of urgency to serve these patients with high disease burden and unmet need, and is on track to complete a BLA filing in the U.S. for the PTLD indication in Q3 2021 as well as a MAA submission in Europe in Q4 2021.”

Atara also presented findings from a comprehensive multiomic analysis of modes of activation for tab-cel®. Each component of the assessment contributes to building the overall understanding of tab-cel’s therapeutic activity, mechanisms of action and extended characteristics. Transcriptional data for tab-cel® demonstrate consistency of the product’s activation profile irrespective of donor and consistent enrichment of receptors targeting EBV-driven diseases.

Atara Presentations at EBMT 2021:

Title: Overall Survival by Best Overall Response with Tabelecleucel in Patients with Epstein-Barr Virus-Driven Post-Transplant Lymphoproliferative Disease after Allogeneic Hematopoietic Cell Transplant

Date & Time: Sunday, March 14, 2021; 08:30 a.m. – 6:45 p.m. CET/ 2:30 a.m. – 12:45 p.m. EDT

Oral session & Number: Cellular Therapy, Gene Therapy and New Drugs II; 5

Title: Comprehensive Activation Profiling of Tabelecleucel, an Off-the-Shelf, Allogeneic EBV-specific T cell therapy (ENCORE FROM TCT 2021)

Date & Time: Available for viewing during poster sessions throughout the meeting

Poster session & Number: P031, Cellular Therapies other than CARs

About Atara Biotherapeutics, Inc.

Atara Biotherapeutics, Inc. (@Atarabio) is a pioneer in T-cell immunotherapy leveraging its novel allogeneic EBV T-cell platform to develop transformative therapies for patients with serious diseases including solid tumors, hematologic cancers and autoimmune disease. With our lead program in Phase 3 clinical development, Atara is the most advanced allogeneic T-cell immunotherapy company and intends to rapidly deliver off-the-shelf

treatments to patients with high unmet medical need. Our platform leverages the unique biology of EBV T cells and has the capability to treat a wide range of EBV-associated diseases, or other serious diseases through incorporation of engineered CARs (chimeric antigen receptors) or TCRs (T-cell receptors). Atara is applying this one platform to create a robust pipeline including: tab-cel® in Phase 3 development for Epstein-Barr virus-driven post-transplant lymphoproliferative disease (EBV^+ PTLD) and other EBV-driven diseases; ATA188, a T-cell immunotherapy targeting EBV antigens as a potential treatment for multiple sclerosis; and multiple next-generation chimeric antigen receptor T-cell (CAR-T) immunotherapies for both solid tumors and hematologic malignancies. Improving patients' lives is our mission and we will never stop working to bring transformative therapies to those in need. Atara is headquartered in South San Francisco and our leading-edge research, development and manufacturing facility is based in Thousand Oaks, California. For additional information about the company, please visit atarabio.com and follow us on Twitter and LinkedIn.

Forward-Looking Statements

This press release contains or may imply "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. For example, forward-looking statements include statements regarding: the potential benefits, safety and efficacy of tab-cel®; the timing and progress of tab-cel®, including data from tab-cel® clinical trials, the timing of the initiation or submission of the BLA [and MAA] for tab-cel®, Atara's ability to successfully advance the development of tab-cel®; and Atara's ability to advance development of its programs. Because such statements deal with future events and are based on Atara Biotherapeutics' current expectations, they are subject to various risks and uncertainties and actual results, performance or achievements of Atara Biotherapeutics could differ materially from those described in or implied by the statements in this press release. These forward-looking statements are subject to risks and uncertainties, including, without limitation, risks and uncertainties associated with the costly and time-consuming pharmaceutical product development process and the uncertainty of clinical success; the ongoing COVID-19 pandemic, which may significantly impact (i) our business, research, clinical development plans and operations, including our operations in South San Francisco and Southern California and at our clinical trial sites, as well as the business or operations of our third-party manufacturer, contract research organizations or other third parties with whom we conduct business, (ii) our ability to access capital, and (iii) the value of our common stock; the sufficiency of Atara's cash resources and need for additional capital; and other risks and uncertainties affecting Atara's and its development programs, including those discussed in Atara Biotherapeutics' filings with the Securities and Exchange Commission (SEC), including in the "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of the Company's most recently filed periodic reports on Form 10-K and Form 10-Q and subsequent filings and in the documents incorporated by reference therein. Except as otherwise required by law, Atara Biotherapeutics disclaims any intention or obligation to update or revise any forward-looking statements, which speak only as of the date hereof, whether as a result of new information, future events or circumstances or otherwise.

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INVESTORS & MEDIA:

Media
Kerry Beth Daly
Head, Corporate Communications
Atara Biotherapeutics
516-982-9328
kdaly@atarabio.com

Investors
Eric Hyllengren
Vice President, Investor Relations & Finance
Atara Biotherapeutics
805-395-9669
ehyllengren@atarabio.com

Source: Atara Biotherapeutics, Inc.