November 1, 2017

Atara Biotherapeutics Announces Two Presentations at 59th American Society of Hematology Annual Meeting, Including Positive Interim Results from a Multicenter Expanded Access Study of ATA129 for Patients with Epstein-Barr Virus (EBV)-Associated Cancers

Updated ATA230 results in patients with cytomegalovirus (CMV) viremia and disease post-transplant will also be presented

SOUTH SAN FRANCISCO, Calif., Nov. 01, 2017 (GLOBE NEWSWIRE) -- Atara Biotherapeutics, Inc. (Nasdaq:ATRA), a leading off-the-shelf T-cell immunotherapy company developing novel treatments for patients with cancer, autoimmune diseases and serious viral infections, today announced that the Company's collaborating investigators at Memorial Sloan Kettering (MSK) Cancer Center will present, on behalf of eight major transplant centers in the U.S., positive interim results for ATA129 from a multicenter expanded access protocol (EAP) study at the upcoming 59th American Society of Hematology (ASH) Annual Meeting and Exposition. Investigators at MSK Cancer Center will also present positive results for ATA230 clinical studies at the ASH Annual Meeting, which will be held December 9-12, 2017, at the Georgia World Congress Center in Atlanta, Georgia.

Results will highlight Atara's ongoing, multicenter EAP study of ATA129 for patients with EBV-associated cancers, including safety and efficacy data in ten patients from the planned Phase 3 populations with rituximab-refractory EBV-associated post-transplant lymphoproliferative disorder (EBV-PTLD), five with EBV-PTLD following solid organ transplant (SOT) and five with EBV-PTLD following hematopoietic cell transplant (HCT). At the time of abstract submission in August 2017, all five patients with EBV-PTLD after SOT and four of the five patients with EBV-PTLD after HCT responded to treatment. An additional two EBV-PTLD patients received ATA129 and were too early in the follow-up period to assess. Updated safety and efficacy results will be presented at the ASH Annual Meeting in December.

"I am encouraged that the multicenter experience with ATA129 in EBV-PTLD patients is consistent with the single-institution safety profile and response rates," said Chris Haqq M.D., Ph.D., Executive Vice President of Research and Development and Chief Scientific Officer of Atara Biotherapeutics. "These results highlight Atara's capability to rapidly deploy banked, off-the-shelf T-cells to patients at major transplant centers participating in the EAP study. We intend to leverage our multicenter clinical experience in the ATA129 Phase 3 EBV-PTLD studies anticipated to start by the end of the year."

An additional ten patients with other EBV-associated cancers received ATA129 and were included in the safety population. ATA129 was generally well-tolerated. Treatment-related, treatment-emergent serious adverse events (SAEs) were reported in five of the 22 treated patients (two in EBV-PTLD and three in other EBV associated cancers patients). A tumor flare was observed in one patient.

Atara's collaborating investigators will also present updated ATA230 results from 50 post-transplant patients with refractory CMV viremia and disease, including those with disease in the CNS. The reported response rate of 64% in all patients was similar in those with CMV viremia and disease. Patients who responded to ATA230 showed improved 6 and 12-month survival of 81.3% and 62.1%, respectively versus those patients who did not respond to treatment. One of the 32 patients who responded died of CMV disease. ATA230 was generally well-tolerated. Five patients experienced grade 3 or higher adverse events deemed possibility related to ATA230.

Abstracts are available in the program section of the ASH Annual Meeting website and details for the presentations are as follows:

Abstract Title: Efficacy and Safety of ATA129, Partially Matched Allogeneic Third-Party Epstein-Barr Virus-Targeted Cytotoxic T Lymphocytes in a Multicenter Study for Post-Transplant Lymphoproliferative Disorder
Abstract Number: 4520
Session Name: 723. Clinical Allogeneic and Autologous Transplantation: Late Complications and Approaches to Disease Recurrence
Poster Presentation Date & Time: Monday, December 11, 2017, 6:00 PM - 8:00 PM Eastern Time
Location: Georgia World Congress Center, Bldg A, Lvl 1, Hall A2
Authors: Susan Prockop, MD[1], Ai Li, PhD[2], Robert Baiocchi, MD, PhD[3], Nancy Bunin, MD[4], Kris Michael Mahadeo, MD[5], Eneida R. Nemecek, MD[6], Sarah Nikiforow, MD, PhD[7], Ran Reshef, M.D.[8], Donald Edward Tsai, MD, PhD[9], Willis H. Navarro, MD[10] and Richard J. O'Reilly, MD[1] [1]Pediatric BMT Service, Department of Pediatrics, Memorial Sloan Kettering Cancer Center, New York, NY; [2]Atara Biotherapeutics, San Francisco, CA; [3]Division of Hematology, Department of Internal Medicine, The Ohio State University, Columbus, OH; [4]Children's Hospital of Philadelphia, Philadelphia, PA; [5]Stem Cell Transplantation and Cellular Therapy, Pediatrics, The University of Texas MD Anderson Cancer Center, Houston, TX; [6]Pediatric Hematology/Oncology & Bone Marrow Transplantation, Oregon Health & Science University, Portland, OR; [7]Division of Hematologic Malignancies, Dana-Farber Cancer Institute, Boston, MA; [8]Blood and Marrow Transplantation Program and Columbia Center for Translational Immunology, Columbia University Medical Center, New York, NY; [9]Lymphoma Program, University of Pennsylvania Medical Center, Philadelphia, PA; [10]Atara Biotherapeutics, Westlake Village, CA

Abstract Title: Adoptive T-Cell Therapy With 3rd Party CMV-pp65-Specific CTLs for CMV Viremia and Disease Arising after Allogeneic Hematopoietic Stem Cell Transplant
Abstract Number: 747
Session Name: 721. Clinical Allogeneic Transplantation: Conditioning Regimens, Engraftment, and Acute Transplant Toxicities: Microbiota, CMV, and GVHD
Oral Presentation Date & Time: Monday, December 11, 2017, 3:15 PM Eastern Time

Location: Georgia World Congress Center, Bldg C, Lvl 2, C202-204

Authors: Susan Prockop, MD[1], Ekaterina Doubrovina, MD, PhD[2], Irene Rodriguez-Sanchez[2], Aisha N. Hasan, MD[1], Juliet Barker, MBBS[3], H.R. Castro-Malaspina, MD[3], Parastoo B. Dahi, MD[3], Sergio A. Giralt, MD[3], Boglarka Gyurkocza, MD[3], Nancy A. Kernan, MD[1], Guenther Koehne, MD PhD[3], Esperanza B. Papadopoulos, MD[3], Doris Ponce, MD[3], Craig S. Sauter, MD[3], Virginia Escobedo, RN[1], Victoria Szenes, PNP[1], Karim Baroudy, BS[2], Alison Slocum, MA[2] and Richard J. O'Reilly, MD[1] [1]Pediatric BMT Service, Department of Pediatrics, Memorial Sloan Kettering Cancer Center, New York, NY; [2]Sloan Kettering Institute, Memorial Sloan Kettering Cancer Center, New York, NY; [3]Adult Bone Marrow Transplant Service, Department of Medicine, Memorial Sloan Kettering Cancer Center, New York, NY

About EBV-PTLD

Since its discovery as the first human oncovirus, Epstein-Barr virus (EBV) has been implicated in the development of a wide range of lymphoproliferative disorders, including lymphomas and other cancers. EBV is widespread in all human populations and persists as a lifelong, asymptomatic infection. In immunocompromised patients, such as those undergoing hematopoietic cell transplants (HCT) or solid organ transplants (SOT), EBV-associated post-transplant lymphoproliferative disorder (EBV-PTLD), represents a life-threatening condition. Median overall survival in EBV-PTLD patients after HCT who have failed rituximab-based first line therapy is 16-56 days. In EBV-PTLD following SOT, patients failing rituximab experience increased chemotherapy-induced treatment-related mortality compared to other lymphoma patients. One and two-year survival in high-risk EBV-PTLD patients after SOT is 36% and 0%, respectively.

About ATA129

Atara's most advanced T-cell immunotherapy in development, ATA129, is a potential treatment for cancer patients with rituximab-refractory EBV-PTLD as well as other EBV positive hematologic and solid tumors including nasopharyngeal carcinoma (NPC). In February 2015, FDA granted ATA129 Breakthrough Therapy Designation for EBV-PTLD following allogeneic hematopoietic cell transplant (HCT) and in October 2016, ATA129 was accepted into the EMA Priority Medicines (PRIME) regulatory pathway for the same indication, providing enhanced regulatory support. Atara also received positive regulatory feedback from Health Canada in September 2017 supporting the submission of ATA129 for an expedited approval pathway. In addition, ATA129 also has orphan status in the U.S. and EU. Phase 3 studies of ATA129 in EBV-PTLD after HCT (MATCH study) or solid organ transplant (ALLELE study) are expected to start in 2017, and a Phase 1/2 study in NPC is planned for 2018. ATA129 is also available to eligible patients with EBV-positive tumors through an ongoing multicenter expanded access protocol (EAP) clinical study. Atara expects to submit ATA129 for conditional marketing authorization in EBV-PTLD following HCT in the EU in 2018.

About CMV

In patients with weakened immune systems, including bone marrow and solid organ transplant recipients, newborns with immature immune systems and those with human immunodeficiency virus (HIV), cytomegalovirus (CMV) can cause potentially life-threatening disease or may result in blindness, brain damage and deafness. While small-molecule antiviral drugs are approved to treat and prevent CMV infection, there remains a high unmet

need due to viral resistance, modest neurodevelopmental activity and adverse effects, such as toxicity and reduction in white blood cell count impairing the ability to fight other infections, with these agents.

About ATA230
ATA230, an allogeneic T-cell immunotherapy targeting antigens expressed by CMV, has been investigated in one Phase 1 and two Phase 2 clinical studies in immunocompromised patients with CMV viremia or disease who are refractory or resistant to antiviral drug treatment in the post-transplant setting. In October 2017, Atara announced that ATA230 was granted Rare Pediatric Disease Designation for the treatment of congenital cytomegalovirus (CMV) infection by FDA and in September 2017, ATA230 received orphan drug designation in the U.S. for the treatment of CMV viremia and disease in immunocompromised patients. The European Medicines Agency (EMA) in October 2016 also issued a positive orphan drug designation opinion for ATA230 for the treatment of CMV infection in patients with impaired cell-mediated immunity. Atara intends to further evaluate ATA230 development plans with the FDA and other global health authorities following the initiation of ATA129 EBV-PTLD Phase 3 studies.

About Atara Biotherapeutics, Inc.
Atara Biotherapeutics, Inc. (@Atarabio) is a leading T-cell immunotherapy company developing novel treatments for patients with cancer, autoimmune diseases and serious viral infections. The Company's off-the-shelf, or allogeneic, T-cells are engineered from donors with healthy immune function and allow for rapid delivery from inventory to patients without a requirement for pretreatment. Atara's T-cell immunotherapies are designed to precisely recognize and eliminate cancerous or diseased cells without affecting normal, healthy cells. Atara's most advanced T-cell immunotherapy in development, ATA129, is being developed for the treatment of cancer patients with rituximab-refractory Epstein-Barr virus (EBV) associated post-transplant lymphoproliferative disorder (EBV-PTLD), as well as other EBV positive hematologic and solid tumors including nasopharyngeal carcinoma (NPC). Phase 3 studies of ATA129 in EBV-PTLD following a hematopoietic cell transplant (MATCH study) or solid organ transplant (ALLELE study) are expected to start in 2017, and a Phase 1/2 study of ATA129 in combination with Merck's anti-PD-1 (programmed death receptor-1) therapy, KEYTRUDA® (pembrolizumab), in patients with platinum-resistant or recurrent EBV-associated NPC is planned for 2018. ATA129 is also available to eligible patients with EBV-positive tumors through an ongoing multicenter expanded access protocol (EAP) clinical study. Atara expects to submit ATA129 for conditional marketing authorization in EBV-PTLD following hematopoietic cell transplant in the EU in 2018. Allogeneic ATA188 and autologous ATA190, the Company's next generation T-cell immunotherapies, selectively target specific EBV antigens believed to be important for the potential treatment of multiple sclerosis (MS). A Phase 1 clinical study of autologous ATA190 in patients with progressive MS is ongoing. Atara also initiated a multinational, multicenter Phase 1 allogeneic ATA188 clinical study in patients with progressive or relapsing-remitting MS in October 2017. Atara's clinical pipeline also includes ATA520 targeting Wilms Tumor 1 (WT1) and ATA230 directed against cytomegalovirus (CMV).

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

Company's expected initiation of Phase 3 studies of ATA129 in EBV-PTLD following a hematopoietic cell transplant or solid organ transplant in 2017 and a Phase 1/2 study of ATA129 in combination with Merck's anti-PD-1 therapy, KEYTRUDA® (pembrolizumab), in patients with platinum-resistant or recurrent EBV-associated NPC in 2018; the Company's intention to further evaluate ATA230 development plans with the FDA and other global health authorities following the initiation of ATA129 EBV-PTLD Phase 3 studies; and the Company's expected submission of a conditional marketing authorization application in EBV-PTLD following HCT in the EU in 2018. 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 those discussed under the heading "Risk Factors" in Atara Biotherapeutics' quarterly report on Form 10-Q filed with the Securities and Exchange Commission (SEC) on August 7, 2017, including the documents incorporated by reference therein, and subsequent filings with the SEC. 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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