February 27, 2018

Atara Biotherapeutics Announces Fourth Quarter and Full Year 2017 Financial Results and Recent Operational Progress

– Initiated two Phase 3 clinical studies to evaluate tab-cel™ (tabelecleucel) in patients with Epstein-Barr virus associated post-transplant lymphoproliferative disorder (EBV+ PTLD) who have failed rituximab and opened six MATCH and eight ALLELE study sites for enrollment in the U.S. –

– Announced positive interim results from a multicenter expanded access study of tab-cel™ in patients with EBV+ PTLD who have no other approved alternative therapies at the 59th American Society of Hematology (ASH) Annual Meeting –

– Received FDA clearance to proceed with patient enrollment at U.S. sites for ongoing multinational Phase 1 clinical study to evaluate ATA188 in patients with progressive or relapsing-remitting multiple sclerosis –

SOUTH SAN FRANCISCO, Calif., Feb. 27, 2018 (GLOBE NEWSWIRE) -- Atara Biotherapeutics, Inc. (Nasdaq:ATRA), a leading off-the-shelf T-cell immunotherapy company developing novel treatments for patients with cancer, autoimmune and viral diseases, today reported financial results for the fourth quarter and full year ended December 31, 2017 and recent operational highlights.

“Atara continues to advance its leadership in T-cell immunotherapy innovation, highlighted by our recent initiation of the first Phase 3 clinical studies of an off-the-shelf, allogeneic T-cell technology, tab-cel™, in the U.S.,” said Isaac Ciechanover M.D., Chief Executive Officer and President of Atara Biotherapeutics. “We also recently received FDA clearance to expand our pioneering multinational clinical study of off-the-shelf ATA188 for patients with multiple sclerosis in the U.S. We are proud of these accomplishments and believe the next 18 months will be a transformational period for Atara. Our focus is to expand and advance our robust T-cell immunotherapy pipeline, manufacturing expertise and global commercial capabilities in anticipation of the announcement of the first tab-cel™ Phase 3 results and submission of an EU conditional marketing authorization application for tab-cel™, both expected in the first half of 2019. We also have a well-defined strategy to leverage the potential of our platform in other cancer, autoimmune and viral diseases, as well as initiate development of genetically modified off-the-shelf T-cell immunotherapies to transform the lives of patients with serious medical conditions.”

Recent Highlights and Anticipated Upcoming Milestones

- Initiated two Phase 3 clinical studies (MATCH and ALLELE) to evaluate tab-cel™ in patients with EBV+ PTLD who have failed rituximab following hematopoietic cell transplant (HCT) or solid organ transplant (SOT).
  - Six clinical sites for the MATCH and eight for the ALLELE pivotal studies are now

open for enrollment in the U.S. and the studies continue to expand to additional U.S. sites as well as sites in other countries including EU, Canada and Australia.
° Results from the first tab-cel™ Phase 3 study to reach the primary endpoint are expected to be announced in the first half of 2019. Atara also plans to submit a Conditional Marketing Authorization (CMA) application for tab-cel™ in the EU for patients with EBV+ PTLD who have failed rituximab following HCT during the first half of 2019.

- Received clearance of an Investigational New Drug (IND) application from the U.S. Food and Drug Administration (FDA) to proceed with patient enrollment at U.S. sites for the Company's ongoing multinational Phase 1 clinical study to evaluate ATA188 in patients with progressive or relapsing-remitting multiple sclerosis (MS).
  ° The primary objective of the Phase 1 study is to assess the safety of ATA188 in patients followed for at least one year after the first dose. Key secondary endpoints in the study include measures of clinical improvement such as expanded disability status scale (EDSS) and annualized relapse rate (ARR), as well as MRI imaging.
  ° We believe that ATA188 may allow for a more consistent reactivity against target EBV antigens, which correlated with clinical improvements in a previous autologous ATA190 Phase 1 study in patients with progressive MS.
  ° The first results from the ATA188 Phase 1 study in patients with progressive MS are expected in the first half of 2019.

- Presented positive interim tab-cel™ results from a multicenter expanded access protocol (EAP) study for patients with EBV associated cancers at the 59th American Society of Hematology (ASH) Annual Meeting.
  ° In 6 patients with EBV+ PTLD who have failed rituximab following SOT, the Objective Response Rate (ORR) was 83%, with 5 of 6 patients responding to treatment.
  ° Additionally, in 5 patients with EBV+ PTLD who have failed rituximab following allogeneic HCT, an ORR of 80% was observed, with 4 of 5 patients responding to treatment.
  ° Safety findings were reported for a total of 23 patients and demonstrated that tab-cel™ was generally well-tolerated in this study population, which comprised ill, mostly immunosuppressed patients with multiple comorbidities. Five patients experienced treatment-related serious adverse events (SAEs).

- Continue to build core commercial and clinical development capabilities in preparation for the expected submission of the tab-cel™ CMA in the EU and potential launch.
  ° Appointed Dr. Derrell Porter as Senior Vice President, Global Commercial Head, who brings extensive oncology and specialty commercialization experience to the management team.
  ° Appointed Dr. Kanya Rajangam as Senior Vice President and Chief Medical Officer, who has leadership experience advancing multiple global, early- and late-stage oncology programs.
  ° Identified Atara’s EU headquarters in Zug, Switzerland and began recruiting key global functional leadership and staff.
  ° Plan to announce partner for Atara MatchMe™, our off-the-shelf T-cell immunotherapy delivery solution, in the first half of 2018.

- Plan to initiate a Phase 1/2 clinical study of tab-cel™ in combination with Merck's anti-PD-1 (programmed death receptor-1) therapy, KEYTRUDA® (pembrolizumab), in patients with platinum-resistant or recurrent EBV-associated nasopharyngeal carcinoma (NPC) in the second half of 2018.

- Expect to present updated tab-cel™ results in patients with EBV+ cancers in the second half of 2018.

- Plan to communicate development strategy for CMV and other viral disease programs in the second half of 2018.

- Expect operations to commence at Atara T Cell Operations & Manufacturing (ATOM) facility in 2018, with clinical production anticipated in 2019.

Fourth Quarter and Full Year 2017 Financial Results

- Cash, cash equivalents and short-term investments as of December 31, 2017 totaled $166.1 million, which the Company believes, along with the $131.4 million net proceeds from the sale of 7,675,072 shares of common stock in an underwritten public offering completed in January 2018, will be sufficient to fund planned operations into the first half of 2020.

- The Company reported net losses of $35.3 million, or $1.15 per share and $119.5 million, or $4.00 per share, for the fourth quarter and fiscal year 2017, as compared to $18.2 million, or $0.63 per share and $79.0 million, or $2.75 per share, for the same periods in 2016.

- Research and development expenses were $24.8 million and $81.2 million for the fourth quarter and fiscal year 2017, as compared to $13.5 million and $56.5 million for the same periods in 2016. The increases in the fourth quarter and fiscal year 2017 were due to costs associated with the Company’s continuing expansion of research and development activities, including:
  ° manufacturing and outside service costs related to the preparation for the two tab-cel™ Phase 3 clinical studies in patients with EBV+ PTLD who have failed rituximab;
  ° ongoing costs for the Company’s EAP clinical study for tab-cel™, which was initiated in mid-2016;
  ° clinical manufacturing and preparations for the Phase 1 clinical study of allogeneic ATA188, which was initiated in October 2017;
  ° higher payroll and related costs from increased headcount, and
  ° an increase in allocated facilities and information technology expenses.

- Research and development expenses include $2.5 million and $8.8 million of non-cash stock-based compensation expenses for the fourth quarter and fiscal year 2017, as compared to $0.4 million and $7.6 million for the same periods in 2016.

- General and administrative expenses were $11.0 million and $40.3 million for fourth quarter and fiscal year 2017, as compared to $5.3 million and $24.7 million for the same periods in 2016. The increases in the fourth quarter and fiscal year 2017 were primarily due to increases in payroll and related costs driven by increased headcount to support the Company’s expanding operations and higher professional services

costs. General and administrative expenses include $3.6 million and $14.3 million of non-cash stock-based compensation expenses for the fourth quarter and fiscal year 2017, as compared to $1.3 million and $9.2 million for the same periods in 2016.

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 allogeneic 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 patients with EBV+ PTLD following 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 patients with high-risk EBV+ PTLD following SOT is 36% and 0%, respectively.

About tab-cel™ (tabelecleucel; formerly known as ATA129)

Atara's most advanced T-cell immunotherapy in development, tab-cel™, is a potential treatment for patients with Epstein-Barr virus (EBV) associated post-transplant lymphoproliferative disorder (EBV+ PTLD) who have failed rituximab, as well as other EBV associated hematologic and solid tumors, including nasopharyngeal carcinoma (NPC). In February 2015, FDA granted tab-cel™ Breakthrough Therapy Designation for EBV+ PTLD following allogeneic hematopoietic cell transplant (HCT) and in October 2016, tab-cel™ 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 tab-cel™ for an expedited approval pathway. In addition, tab-cel™ has orphan status in the U.S. and EU. Tab-cel™ is in Phase 3 clinical development for the treatment of EBV+ PTLD following an allogeneic hematopoietic cell transplant (MATCH study) or solid organ transplant (ALLELE study), and a Phase 1/2 study in NPC is planned for 2018. Tab-cel™ is also available to eligible patients with EBV associated hematologic and solid tumors through an ongoing multicenter expanded access protocol clinical study, positive interim results of which were presented in December 2017 at the 59th American Society of Hematology (ASH) Annual Meeting.

About Multiple Sclerosis (MS)

MS is a chronic neurological autoimmune disease that affects an estimated 2.3 million people around the world. Relapsing-remitting MS (RRMS) is the most common form of MS and is characterized by episodes of new or worsening signs or symptoms (relapses) followed by periods of recovery. Despite available disease-modifying treatments, most individuals with RRMS continue to experience disease activity and disability progression.

Progressive MS (PMS) is a severe form of the disease with few therapeutic options. PMS comprises two conditions, both characterized by persistent progression and worsening of MS symptoms and physical disability over time. Primary Progressive MS (PPMS) occurs when continuous progressive disease is present at diagnosis and occurs in approximately 15% of newly diagnosed cases. Secondary Progressive MS (SPMS) initially begins as RRMS and develops into a progressive form. Up to 80% of people with RRMS will eventually develop

SPMS. There is substantial unmet medical need for new and effective therapies for patients with PPMS and SPMS. Most treatment options that work well in reducing flares in RRMS have not been shown to be effective in slowing or reversing disability in PMS.

About allogeneic ATA188 and autologous ATA190

Epstein-Barr Virus (EBV) is associated with a wide range of hematologic malignancies and solid tumors, as well as certain autoimmune conditions such as multiple sclerosis (MS). T-cells are a critical component of the body's immune system and can selectively target specific EBV antigens believed to be important for the potential treatment of MS. Off-the-shelf ATA188 and autologous ATA190, using the Company's complementary T-cell immunotherapy technology developed by Professor Rajiv Khanna at QIMR Berghofer, have the potential to precisely recognize and eliminate EBV-infected B-cells and plasma cells in the central nervous system that may catalyze autoimmune responses and MS pathophysiology. Professor Michael Pender from The University of Queensland presented updated results from the first autologous ATA190 study, which was partially funded by MS Research Australia, MS Queensland and Perpetual Foundation, at MSParis 2017 Congress, the 7th Joint ECTRIMS and ACTRIMS Meeting in October 2017. This study tested adoptive immunotherapy in patients with MS and showed that autologous ATA190 led to encouraging clinical improvements in MS symptoms that correlated with autologous ATA190's reactivity against target EBV antigens (EBV reactivity). In addition to the ongoing Phase 1 autologous ATA190 clinical study in patients with progressive MS, Atara also initiated a multinational Phase 1 ATA188 clinical study in patients with progressive or relapsing-remitting MS in Australia in the fourth quarter of 2017 with patient enrollment at U.S. sites beginning in early 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 cytomegalovirus (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 by the FDA for the treatment of congenital CMV infection, 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. Given the opportunity to pursue a CMA in the EU for tab-cel™, we have decided to prioritize our EBV related programs ahead of ATA230 at this time, and plan to further evaluate our development strategy for ATA230 in 2018.

About Atara Biotherapeutics, Inc.

Atara Biotherapeutics, Inc. (@Atarabio) is a leading T-cell immunotherapy company developing novel treatments for patients with cancer, autoimmune and viral diseases. The Company's off-the-shelf, or allogeneic, T-cells are bioengineered 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, tab-cel™ (tabelecleucel; formerly known as ATA129), is being developed for the treatment of patients with Epstein-Barr virus (EBV) associated post-transplant lymphoproliferative disorder (EBV+PTLD) who have failed rituximab, as well as other EBV associated hematologic and solid tumors, including nasopharyngeal carcinoma (NPC). Tab-cel™ is in Phase 3 clinical development for the treatment of EBV+PTLD following an allogeneic hematopoietic cell transplant (MATCH study) or solid organ transplant (ALLELE study), and a Phase 1/2 study of tab-cel™ 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. Tab-cel™ is also available to eligible patients with EBV associated hematologic and solid tumors through an ongoing multicenter expanded access protocol (EAP) clinical study. Off-the-shelf ATA188 and autologous ATA190, the Company's T-cell immunotherapies using a complementary targeted antigen recognition technology, 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 Phase 1 ATA188 clinical study in patients with progressive or relapsing-remitting MS in Australia in the fourth quarter of 2017 with patient enrollment at U.S. sites beginning in early 2018. 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 the Company's enrollment, later expansion of additional sites in the U.S. and sites in the EU, Canada and Australia; expected results and completion of its Phase 3 studies of tab-cel™; the timing of the Company’s submission of a CMA for tab-cel™ in the EU; the expected start of a Phase 1/2 study of tab-cel™ 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 in 2018; the sufficiency of the Company’s cash, cash equivalents and short-term investments to fund operations into the first half of 2020; the Company’s ability to leverage its platform in other indications and initiate development of additional immunotherapies; and the potential advantages of its product candidates. 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 November 9, 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.

Atara Biotherapeutics, Inc.
Consolidated Balance Sheets
(Unaudited)
(In thousands)

	December 31, 2017	December 31, 2016
Assets		
Current assets:		
Cash and cash equivalents	$ 79,223	$ 47,968
Short-term investments	86,873	207,714
Restricted cash	194	194
Prepaid expenses and other current assets	5,900	4,677
Total current assets	172,190	260,553
Property and equipment, net	44,129	3,259
Restricted cash, long term	1,200	—
Other assets	260	102
Total assets	$ 217,779	$ 263,914
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 14,711	$ 2,778
Accrued compensation	5,664	3,745
Accrued research and development expenses	4,006	2,408
Other accrued liabilities	3,265	744
Total current liabilities	27,646	9,675
Long-term liabilities	12,269	503
Total liabilities	39,915	10,178
Commitments and contingencies		
Stockholders' equity:		
Common stock	3	3
Additional paid-in capital	474,662	431,075
Accumulated other comprehensive loss	(151)	(183)
Accumulated deficit	(296,650)	(177,159)
Total stockholders' equity	177,864	253,736
Total liabilities and stockholders' equity	$ 217,779	$ 263,914

Atara Biotherapeutics, Inc.
Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)
(In thousands)

	Three Months Ended December 31,		Year Ended December 31,	
	2017	**2016**	**2017**	**2016**
Operating expenses:				
Research and development	$ 24,771	$ 13,474	$ 81,206	$ 56,514
General and administrative	11,031	5,280	40,326	24,728
Total operating expenses	35,802	18,754	121,532	81,242
Loss from operations	(35,802)	(18,754)	(121,532)	(81,242)
Interest and other income, net	473	519	2,027	2,203
Loss before provision for income taxes	(35,329)	(18,235)	(119,505)	(79,039)
Provision (benefit) for income taxes	(16)	-	(14)	10
Net loss	$ (35,313)	$ (18,235)	$ (119,491)	$ (79,049)
Other comprehensive loss:				
Unrealized gain (loss) on available-for-sale securities	(63)	(218)	32	335
Comprehensive loss	$ (35,376)	$ (18,453)	$ (119,459)	$ (78,714)
Net loss per common share:				
Basic and diluted net loss per common share:	$ (1.15)	$ (0.63)	$ (4.00)	$ (2.75)
Weighted-average common shares outstanding used to calculate basic and diluted net loss per common share	30,651	28,915	29,863	28,732

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