# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

#### FORM 8-K

Current Report
Pursuant to Section 13 or 15(d) of
the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 9, 2017

#### ADAPTIMMUNE THERAPEUTICS PLC

(Exact name of registrant as specified in its charter)

England and Wales (State or other jurisdiction of incorporation) 1-37368 (Commission File Number) Not Applicable (IRS Employer Identification No.)

101 Park Drive, Milton Park Abingdon, Oxfordshire OX14 4RY United Kingdom

(Address of principal executive offices, including zip code)

	(44) 1235 430000 (Registrant's telephone number, including area code)
Check the appropriate box	below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:
□ Written comm	nunications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
☐ Soliciting mat	erial pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
□ Pre-commenc	ement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
□ Pre-commenc	ement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
tem 7.01 Other I	Events.
	timmune Therapeutics plc (the "Company") released an updated corporate presentation. The updated corporate presentation materials are attached reporated by reference herein.
mended, or otherwise sub xpressly set forth by spec	01 of this Form 8-K (including Exhibit 99.1) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as ject to the liabilities of that section, nor shall it be deemed incorporated by reference under the Securities Act of 1933, as amended, except as ific reference in such a filing, regardless of any general incorporation language in any such filing, unless the Company expressly sets forth in such is to be considered "filed" or incorporated by reference therein.
tem 9.01 Financi	al Statements and Exhibits.
(d) Exhibits. The	e following exhibit is furnished as part of this Report on Form 8-K:
Exhibit No.	Description of Exhibit
99.1	Adaptimmune Therapeutics plc presentation materials dated January 2017.
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	SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized.

ADAPTIMMUNE THERAPEUTICS PLC

Date: January 9, 2017 By: /s/ Margaret Henry

Name: Margaret Henry

Title: Corporate Secretary

#### Exhibit Index

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### **Disclaimer**

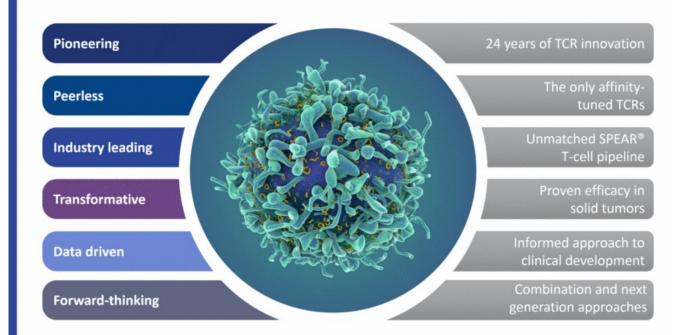
This presentation contains "forward-looking statements," as that term is defined under the Private Securities Litigation Reform Act of 1995 (PSLRA), which statements may be identified by words such as "believe," "may", "will," "estimate," "continue," "anticipate," "intend," "expect" and other words of similar meaning. 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; our ability to submit an IND and successfully advance our technology platform to improve the safety and effectiveness of our existing TCR therapeutic candidates; the rate and degree of market acceptance of T-cell therapy generally and of our TCR therapeutic candidates; government regulation and approval, including, but not limited to, the expected regulatory approval timelines for TCR therapeutic candidates; and our ability to protect our proprietary technology and enforce our intellectual property rights; amongst others. 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 Securities and Exchange Commission (SEC) on November 10, 2016 and our other SEC filings.

We urge you to consider these factors carefully in evaluating the forward-looking statements herein and are cautioned not to place undue reliance on such forward-looking statements, which are qualified in their entirety by this cautionary statement. The forward-looking statements contained in this presentation 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. We intend that all forward-looking statements be subject to the safe-harbor provisions of the PSLRA.

Adaptimmune® and SPEAR® are registered trademarks of Adaptimmune.



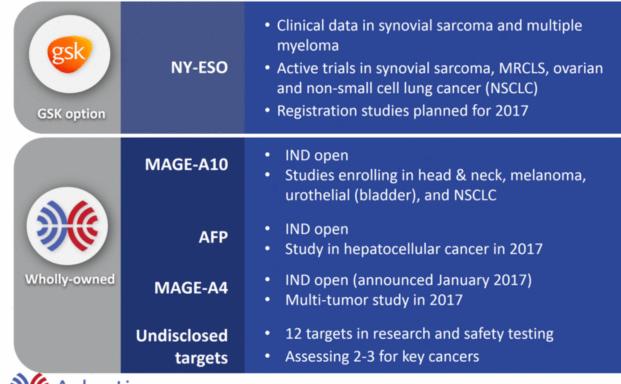
# Adaptimmune: Leading the TCR T-cell Space





## **Adaptimmune** Pipeline Overview

**Multiple Targets with Near Term Clinical Milestones** 





# **Unmatched Clinical Pipeline** of Affinity Enhanced TCRs

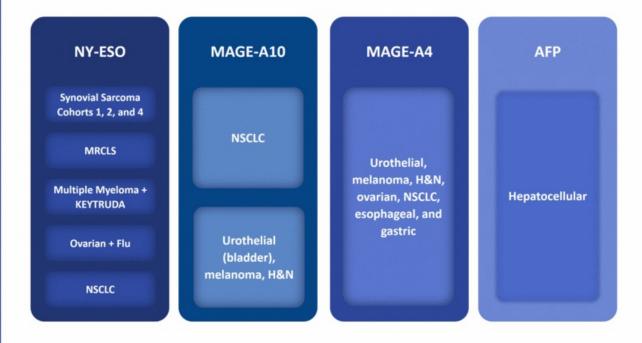
SPEAR target	Indication	Notes	Pre-IND	Phase I / II	Registration trial
NY-ESO	Synovial sarcoma	Registration trial			
		Cohort 1 - High NY-ESO + CTX / FLU			
		Cohort 2 - Low NY-ESO + CTX / FLU			
		Cohort 3 – no FLU			
		Cohort 4 – modified CTX / FLU			
	Myxoid / Round cell liposarcoma	Pilot study			
	Multiple myeloma	Autologous SCT			
		Combination with anti-PD1 (KEYTRUDA)			
	Ovarian	No FLU			
		Modified CTX / FLU			
	Melanoma	No Flu			
	Non-small cell lung cancer (NSCLC)	Modified CTX / FLU			
MAGE-A10	NSCLC	Modified CTX / FLU			
	Urothelial (bladder), melanoma, H&N	Modified CTX / FLU			
AFP	Hepatocellular cancer	Modified CTX / FLU			
MAGE-A4	Urothelial, melanoma, H&N, ovarian, NSCLC, esophageal, gastric			_	



Complete Ongoing Planned

# 2017: A Year of Significant Data Delivery

Potential for Data from Multiple SPEAR T-cell Therapies in Multiple Tumors





-6

# Patient Outcomes Depend on Great Science

**Innovation Drives Patient Care** 

# **Technology Foundation**

#### Manufacturing Technology

# Clinical Foundation

# Treatment / Post-treatment

#### Continuous Evolution

- Identifies the right targets
- TCR generation against virtually any HLA/target
- · Affinity enhancement
- Proprietary preclinical safety platform
- Robust process for T-cell manufacturing
- Proprietary vector manufacturing process
- Exclusive license for CD3/CD28 Dynabeads®
- Alliances with major cancer centers
- Optimal preconditioning

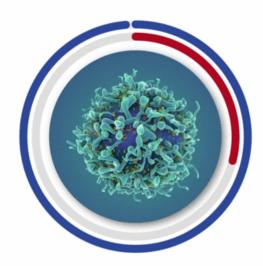
persistence

- Optimal in vivo expansion, long-term antitumor memory, SPEAR T-cell
- Optimal cell dose; CD4 and CD8 cells
- Potential to re-treat
- Duration of response
- Persistence without exhaustion
- Mechanisms of resistance and relapse
- Enhancements to impact immune suppression
- Assessment of combination therapies
- Allogeneic approaches



## **CAR-T vs TCR:** Differences in Access to Human Proteome

**Significantly Better Access to Peptides with T-cell Receptors** 



Nearly all proteins are available to TCRs

Access to extra- and intracellular proteins

**TCRs** 

CAR-T

Unlimited targets; utilizes the T-cell's native receptor

Affinity tuned SPEAR TCRs overcome low target expression; required to address solid tumors

Only ~28% of proteins available to CAR-T cells

Mostly limited to extracellular proteins

**Limited targets compared to TCRs** 

Chimeric antigen receptor; not designed to recognize an HLA peptide



## Affinity Optimization is Critical to Address Majority of Antigens

Adaptimmune is the Only Company with this Proprietary Technology



- T-cells bind to targets on cancer cells
- Cancer downregulates targets to avoid detection
- Most naturally occurring anti-tumor
   T-cells are low affinity (require more targets)
- SPEAR T-cells are affinity enhanced to overcome this problem
- Proprietary preclinical engineering ensures tumor-specific response
- Optimal specificity and affinity for antitumor activity
- Demonstrated efficacy in solid tumors





# NY-ESO SPEAR T-cell Therapy in the Clinic

## **Compelling Response and Survival Data in Multiple Cancers**

Disease setting	Response rate	Survival data	Source
Melanoma	5/11 (2CRs, 22 and 20 months)		Robbins PF, Rosenberg SA et al. J Clin Oncol. 2011 Mar 1;29(7):917-24
Melanoma	11/20 (55%)	33% at five years	Robbins PF et al. Clin Cancer Res. 2015 Mar 1;21(5):1019-27
Synovial Sarcoma (study 1)	4/6 (all PRs), up to 18 months	-	Robbins PF, Rosenberg SA et al. J Clin Oncol. 2011 Mar 1;29(7):917-24
Synovial Sarcoma (study 1)	11/18 (61%)	38% at 3 years, 14% at 5 years	Robbins PF et al. Clin Cancer Res. 2015 Mar 1;21(5):1019-27
Synovial Sarcoma (study 2)	6/12 (1 CR, 5 PRs)	Median survival 18 months	C. Mackall et al. Ann Oncol (2016) 27 (suppl 6)
Synovial Sarcoma – low expressers	1/5 PRs	-	C. Mackall et al. Ann Oncol (2016) 27 (suppl 6)
Multiple Myeloma with ASCT	91% ORR, 59% CR	Median survival 3 years (January 2016)	ASH 2015 poster - Rapoport AP, Binder- Scholl GK et al. Abstract #2012; 120: 472 Rapoport AP et al. Nat Med. 2015 Aug;21(8):914-21

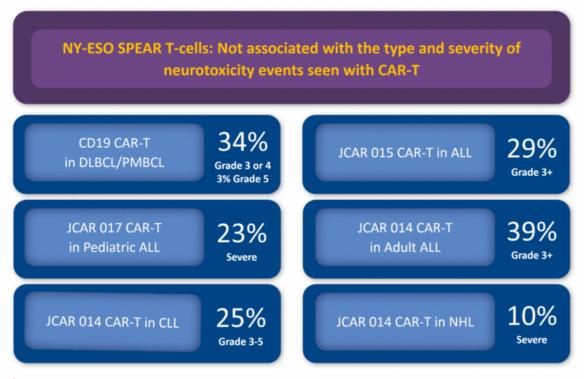


# Frequency of Grade 3+ CRS: NY-ESO SPEAR-T vs CAR-Ts

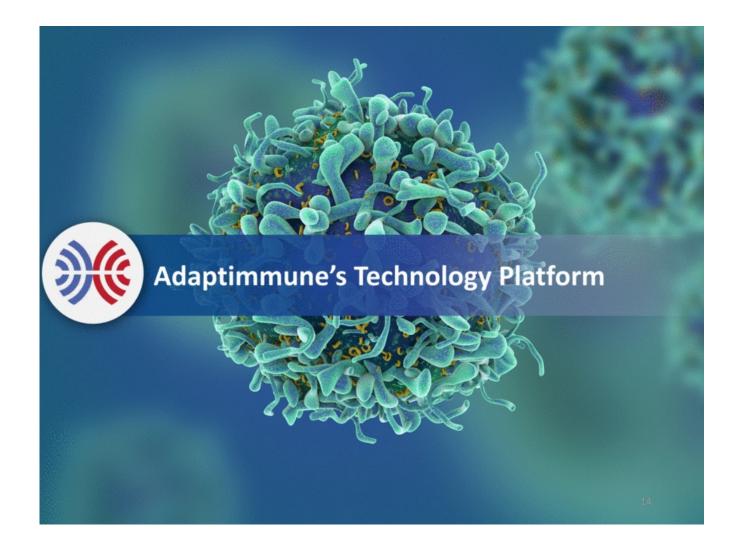


Adaptimmune

# **Neurotoxicity:** NY-ESO SPEAR-T vs CAR-Ts







# **Proprietary SPEAR Technology Platform**

**Optimized Target Identification, Safety Testing and Manufacturing** 

Mass spectrometry platform for target ID/validation

TCR generation/identification platform

Empirical engineering of optimal affinity by phage display

Proprietary platform for systematic safety analysis

Proprietary manufacturing with CD3/CD28 Dynabeads

Unlimited cancer targets, any HLA; minimal expression on normal tissues

Ability to generate TCRs against virtually any HLA/target

Ensures potency with minimal cross reactivity

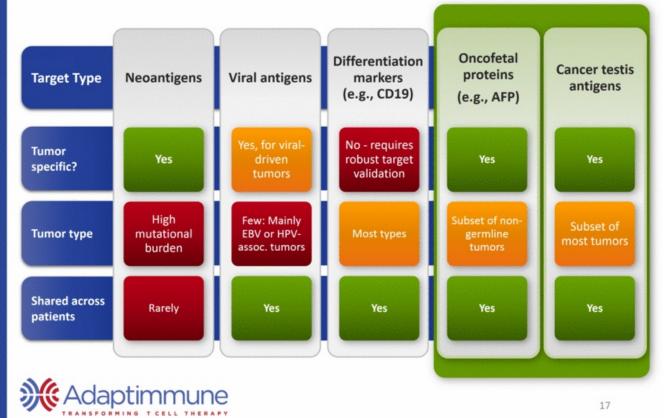
Minimizes risk of off target binding

Ensures expansion and long-term persistence





# The Right Targets: Evaluating Antigens for Immunotherapy



# Next Targets: Potential INDs in 2017/2018



Source: TCGA Research Network: http://cancergenome.nih.gov, January 2017.

Second Generation dnTGFβRII

Blocks immune suppression by TGFβ in tumor microenvironment

**Construct X** 

Promotes antigen spread, anti-tumor memory, and tumor inflammation

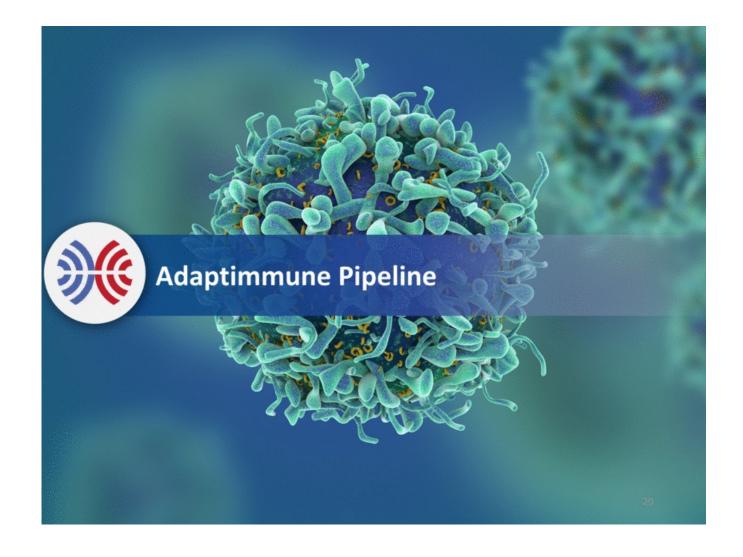


# Prioritizing Cancers with Significant Unmet Medical Need<sup>1</sup>

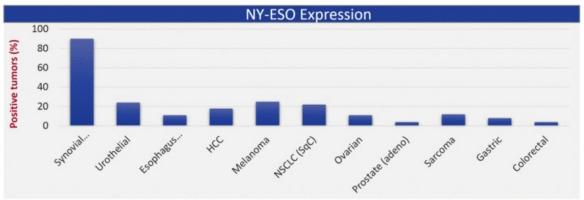




<sup>1</sup> American Cancer Society 2016 estimates <sup>2</sup> ACS: Approximately 15% of all lung cancers are SCLC <sup>3</sup> ACS: Approximately 85% of all lung cancers are NSCLC 19



**NY-ESO: Expressed Across a Wide Range of Tumors** 



#### **Estimated Annual Deaths**

Source: TCGA Research Network: http://cancergenome.nih.gov, January 2017.

	US <sup>1</sup>	Europe <sup>2</sup>
Soft tissue sarcoma	4,990	
Myeloma	12,650	24,287
Ovarian	14,240	42,716
Melanoma	10,130	22,199
Lung	158,080	353,580



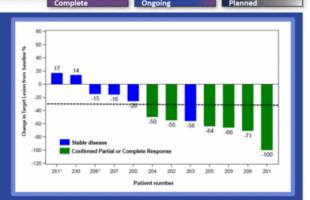
1. Source: seer.cancer.gov; http://www.cancer.org/; 2016 data 2. Source: eco.iarc.fr/eucan; 2012 data

**NY-ESO SPEAR T-cell Development Program: Sarcoma** 

SPEAR target	Indication	Notes	Pre-IND	Phase I / II	Registration
NY-ESO	Synovial sarcoma	Registration	1.000		
		Cohort 1 - High NY-ESO +CTX / FLU			
		Cohort 2 - Low NY-ESO +CTX / FLU			
		Cohort 3 – no fludarabine			
		Cohort 4 – modified CTX / FLU			
	Myxoid / Round cell liposarcoma	Pilot study		30.00	

#### **NY-ESO SPEAR T-cells in Synovial Sarcoma**

- ~18 months (80 weeks) median survival for cohort 1
- 60% response rate (6/10) in patients receiving target cell dose (50% overall response rate [6/12]) in context of CTX + fludarabine
- Confirmed response seen in 1 of 5 patients with low NY-ESO expression
- Overall, manageable toxicity; highly persistent cells in the presence of fludarabine



#### 2017 Milestones:

Data from synovial sarcoma cohorts 1, 2, and 4; MRCLS pilot study

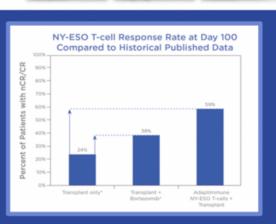


NY-ESO SPEAR T-cell Development Program: Multiple Myeloma



#### **NY-ESO SPEAR T-cells in Multiple Myeloma**

- 3-year overall survival (OS) as of Jan. 2016
- 91 percent (20/22) response rate at day 100
- Median: PFS=19.1 months (11/2015)
- · Manageable toxicity, highly persistent cells



#### 2017 Milestones:

Initiation of combination study with KEYTRUDA®; potential for data in late 2017



NY-ESO SPEAR T-cell Development Programs: Ovarian, Melanoma, and NSCLC



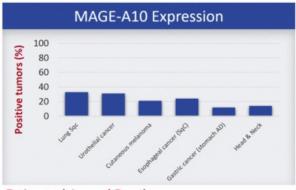
Results of ovarian and melanoma studies with CTX only highlight need for preconditioning regimen including fludarabine

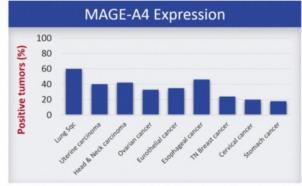
2017 Milestones:

Data from studies in NSCLC and ovarian (with FLU)



MAGE-A10 and -A4: Expressed Across a Wide Range of Tumors





**Estimated Annual Deaths** 

Source: TCGA Research Network: http://cancergenome.nih.gov, January 2017.

	US <sup>1</sup>	Europe <sup>2</sup>
Urothelial	16,390	52,374
Head and neck	9,570	43,704
Ovarian	14,240	42,716
Melanoma	10,130	22,199
Lung	158,080	353,580
Esophageal	15,690	39,504
Gastric	10,730	107,313



1. Source: seer.cancer.gov; http://www.cancer.org/; 2016 data 2. Source: eco.iarc.fr/eucan; 2012 data

MAGE-A10 and -A4 SPEAR T-cell Development Programs: Multiple Cancers

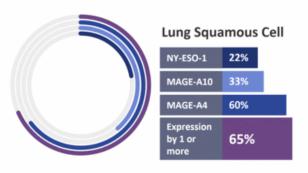
SPEAR target	Indication	Notes	Pre-IND	Phase I / II	Registration
MAGE-A10	Non-small cell lung cancer (NSCLC)	modified CTX / FLU			
	Urothelial (bladder), melanoma, H&N	modified CTX / FLU			
MAGE-A4	Urothelial, melanoma, H&N, ovarian, NSCLC, esophageal, gastric				

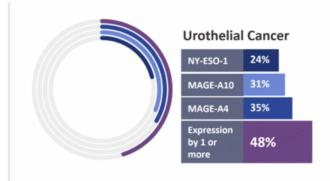
2017 Milestones: Data from NSCLC and triple tumor studies of MAGE-A10 SPEAR T-cells 2017 / 2018 Milestones:
Data from multi-tumor study of
MAGE-A4 SPEAR T-cells



**Building a Franchise: Broad Coverage of Cancers with Existing CTA Pipeline** 

#### **Tumor Overlap Examples**







#### Head & Neck Cancer (squamous cell)

NY-ESO-1	10%
MAGE-A10	14%
MAGE-A4	42%
Expression by 1 or more	44%

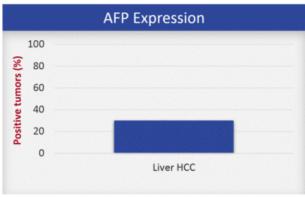


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Source: TCGA Research Network: http://cancergenome.nih.gov, January 2017.

AFP SPEAR T-cell Development Program: Hepatocellular cancer





#### **Estimated Annual Deaths**

	US <sup>1</sup>	Europe <sup>2</sup>
Liver HCC	27,170	62,152

#### 2017/2018 Milestones:

Data from study in hepatocellular cancer

Source: TCGA Research Network: http://cancergenome.nih.gov, January 2016.

- 1. Source: seer.cancer.gov; http://www.cancer.org/; 2016 data
- 2. Source: eco.iarc.fr/eucan; 2012 data



## **Leading Innovation** in Engineered T-cell Therapy

**Next Generation: Depth and Durability in Solid Tumors** 

- Combination studies starting in 2017
- Enhancing resistance to tumor microenvironment: 5 programs and growing
  - ✓ Block effects of immunosuppression (e.g., TGF-β)
  - ✓ Overcoming metabolic restrictions of tumor environment
  - ✓ Other internal programs in development
- Enhancing T-cell potency and function: 11 programs and growing
  - ✓ Enhancement of Class-I restricted CD4 T-cell function
  - ✓ Enhancement of cytotoxic function
  - ✓ Enhancement of epitope spreading
  - ✓ Other internal programs in development
  - ✓ Partnership with Bellicum



# Leading Innovation in Engineered T-cell Therapy

**Innovative Partnership with Bellicum** 



- Staged collaboration to evaluate Bellicum's "GoTCR" switch technology
- Technology could complement our next generation efforts
  - ✓ Provides potential on/off switch to T-cell
  - ✓ May further enhance SPEAR T-cell proliferation, activation and persistence
- Preclinical POC will be completed in 2017
- Potential to proceed into co-development / co-commercialization phase in 2017/2018



## **Leading Innovation** in Engineered T-cell Therapy

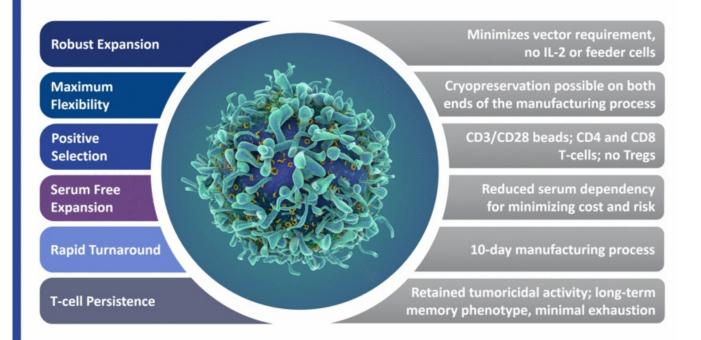
Allogeneic Approach to TCR T-cell Therapy

- Universal Cells
- · Partnered with Universal Cells
- · Benefits of allogeneic approach include
  - ✓ Allows one manufacturing batch to treat numerous patients
  - ✓ Enhanced control and standardization of manufactured product
  - ✓ Eliminates risk of rejection by host and GvHD
  - ✓ Decreases manufacturing costs
  - ✓ Scalable for unlimited commercial manufacture
- · Progenitor cell line evaluated; T-cell differentiation ongoing
- · Pre-IND meeting in planning





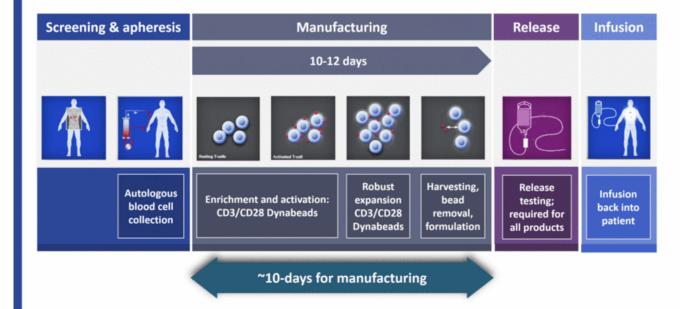
# **Advantages** of Adaptimmune's Manufacturing Process





# **Cell Manufacturing:** The Patient Journey

**Industry Leading In Vitro Expansion** 





# **Cell Manufacturing**

## **Improved Efficiency over Academic Process**



Freeze apheresis

(process improved to freeze on both ends)



Isolation and T-cell stimulation with CD3/CD28 beads

(no elution or CD25 depletion required)



Extended expansion time

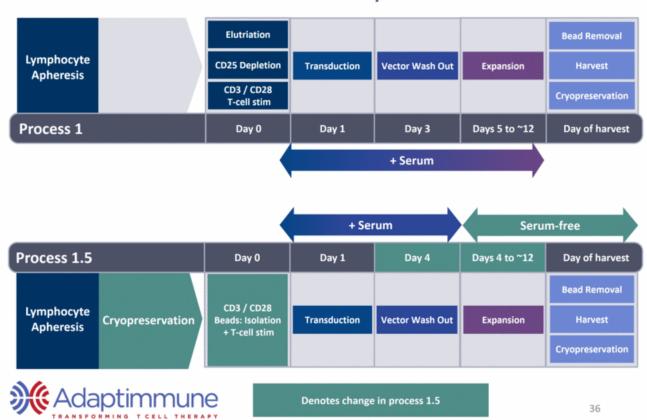


Optimized serum-free expansion and harvest



# **Delivering on a Commercial-Ready Process**

**Enhancements to Ensure Commercial Feasibility** 



Denotes change in process 1.5



# Global Technology Network: Partnering with Industry Leaders Clinical Platform development Manufacturing ThermoFisher SCENTIFIC

# **Strong Financial Position**

#### **Third Quarter 2016 Financial Results**

- Financial position as of September 30, 2016
  - \$140.4 million of cash and cash equivalents
  - \$47.1 million of short-term deposits
  - Combined represents a total liquidity position of \$187.5 million\*
- Will fund operations through mid-2018\*\*

- Total liquidity position is a non GAAP financial measure, which is explained and reconciled to the most directly comparable financial measures prepared in accordance with GAAP
- \*\* Guidance excludes any new business development and is based on current company assumptions





