



Cowen

37th Annual Healthcare Conference

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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.

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Adaptimmune: Leading the TCR T-cell Space

Pioneering

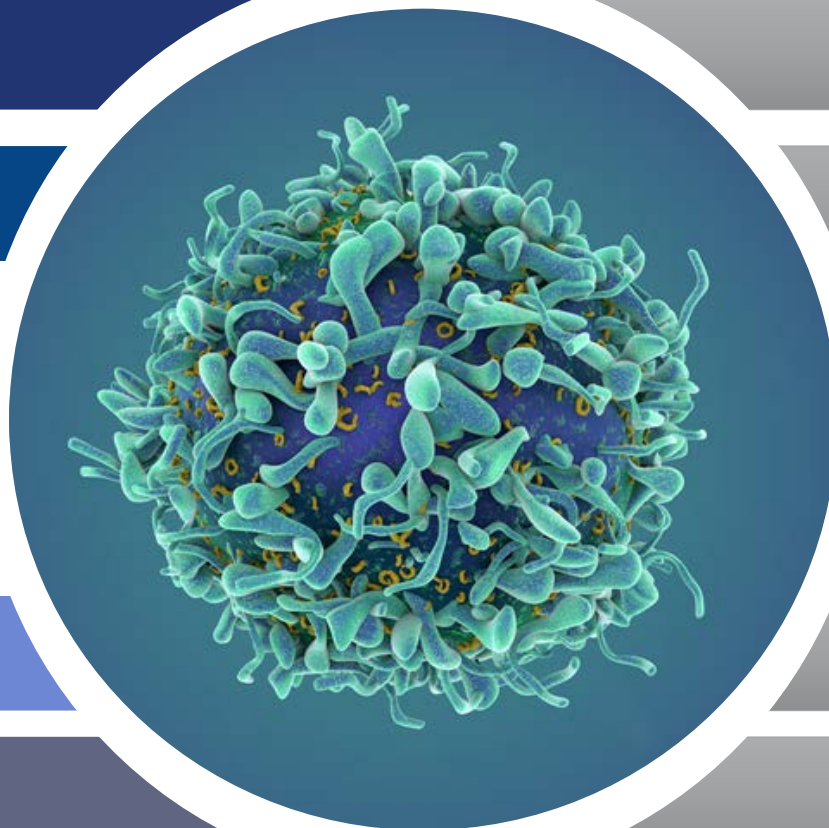
Peerless

Industry leading

Transformative

Data driven

Forward-thinking



24 years of TCR innovation

The only affinity-tuned TCRs

Unmatched SPEAR® T-cell pipeline

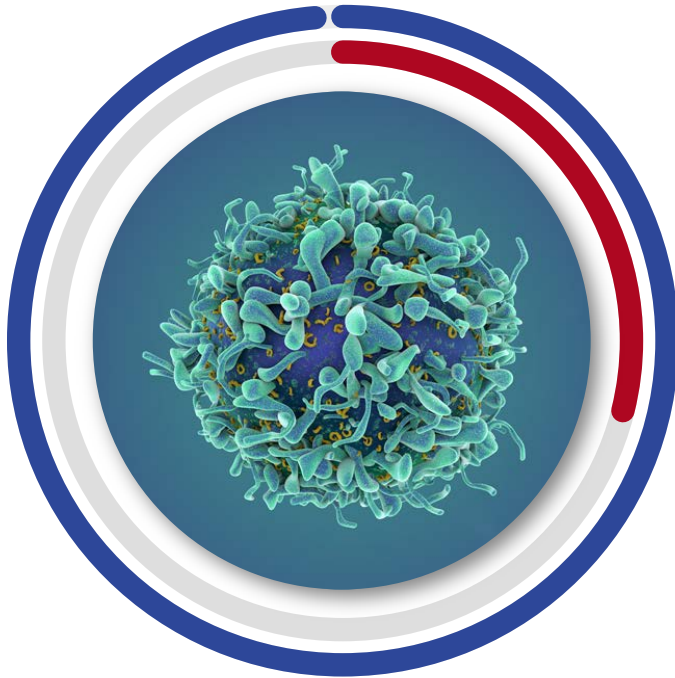
Proven efficacy in solid tumors

Informed approach to clinical development

Combination and next generation approaches

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

Significantly Better Access to Peptides with T-cell Receptors



TCRs

Nearly all proteins are available to TCRs

Access to extra- and intracellular proteins

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

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

CAR-T

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

Developing Novel TCR Therapies

Utilizing Proprietary Technology Platform to Develop Multiple Approaches

Cancer Testis Antigens

- Exclusive to tumor tissue; shown to be good targets
- But expressed less frequently across cancers
- Developing a franchise with overlapping expression profiles
- Examples: NY-ESO, MAGE-A10 & -A4

Non-CTA Targets

- Includes oncofetal proteins and differentiation markers
- Closely associated with single tumor types
- Example: AFP

Multiple HLAs



- Expanding research efforts to target multiple HLAs
- Looking beyond foundational data in HLA-A2

Next generation SPEAR T-cells

- Data on dnTGF- β receptor construct at SITC 2016
- Also evaluating combination approaches

Adaptimmune Pipeline Overview

Multiple Targets with Near Term Clinical Milestones

 GSK option	NY-ESO	<ul style="list-style-type: none">• Clinical data in synovial sarcoma and multiple myeloma• Active trials in synovial sarcoma, MRCLS, ovarian and non-small cell lung cancer (NSCLC)• Registration studies in synovial sarcoma planned for 2017
 Wholly-owned	MAGE-A10 AFP MAGE-A4 Undisclosed targets	<ul style="list-style-type: none">• IND open• Studies enrolling in head & neck, melanoma, urothelial (bladder), and NSCLC• IND open• Study in hepatocellular cancer in 2017• IND open (announced January 2017)• Multi-tumor study in 2017• 12 targets in research and safety testing• Assessing 2-3 for key cancers



Adaptimmune Pipeline

Deep Pipeline Across Major Cancers

NY-ESO SPEAR T-cell Development Program: Sarcoma

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

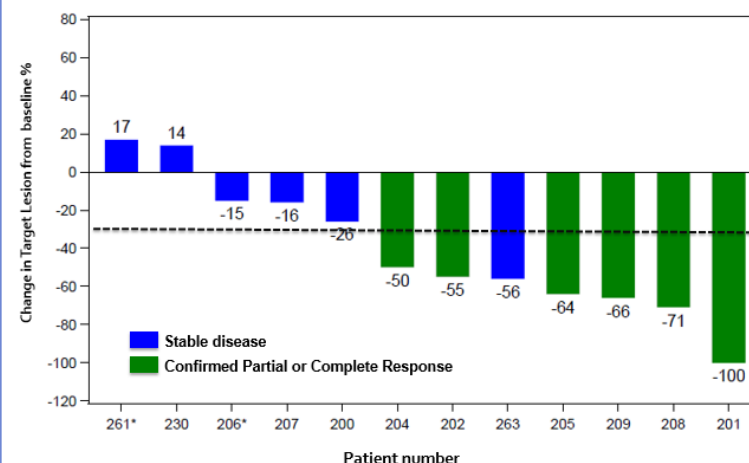
Complete

Ongoing

Planned

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

Deep Pipeline Across Major Cancers

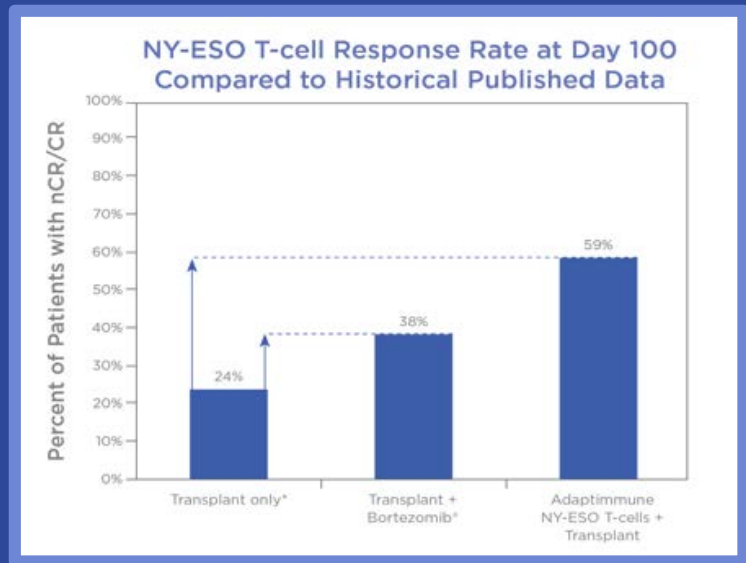
NY-ESO SPEAR T-cell Development Program: Multiple Myeloma

SPEAR target	Indication	Notes	Pre-IND	Phase I / II	Registration
NY-ESO	Multiple myeloma	Autologous SCT	Complete		
		Combination with anti-PD1 (KEYTRUDA)	Ongoing		

Complete Ongoing Planned

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

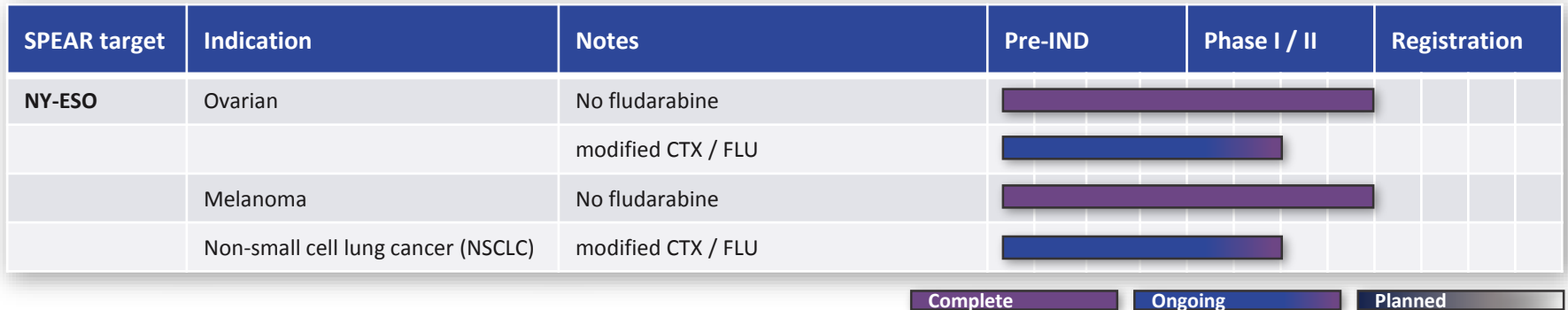


2017 Milestones:

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

Deep Pipeline Across Major Cancers

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)

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

Adaptimmune NY-ESO SPEAR T-cell therapy

8.6%

No Grade 5 CRS
All cases resolved

CD19 CAR-T
in DLBCL/PMBCL

18%

JCAR 015 CAR-T in ALL

27%

JCAR 017 CAR-T
in Pediatric ALL

23%

JCAR 014 CAR-T
in Adult ALL

39%

JCAR 014 CAR-T in CLL

8%

JCAR 014 CAR-T in NHL

10%

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

NY-ESO SPEAR T-cells: Not associated with the type and severity of neurotoxicity events seen with CAR-T

CD19 CAR-T
in DLBCL/PMBCL

34%
Grade 3 or 4
3% Grade 5

JCAR 015 CAR-T in ALL

29%
Grade 3+

JCAR 017 CAR-T
in Pediatric ALL

23%
Severe

JCAR 014 CAR-T
in Adult ALL

39%
Grade 3+

JCAR 014 CAR-T in CLL

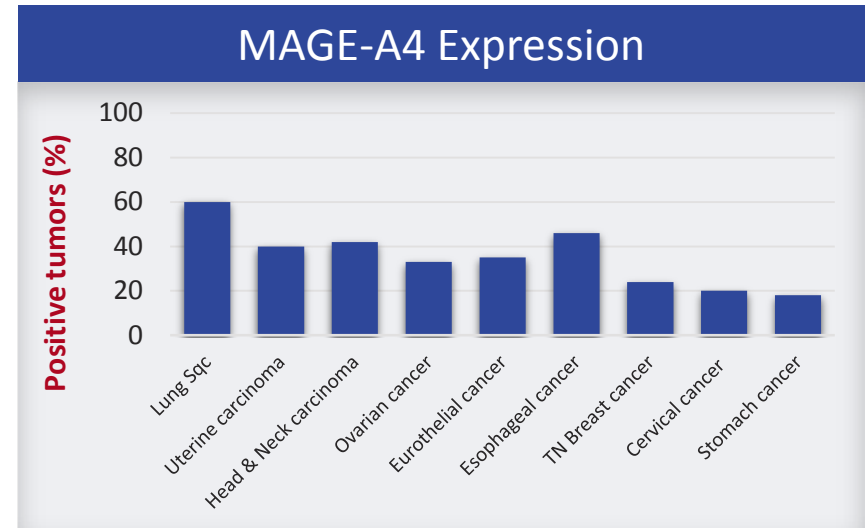
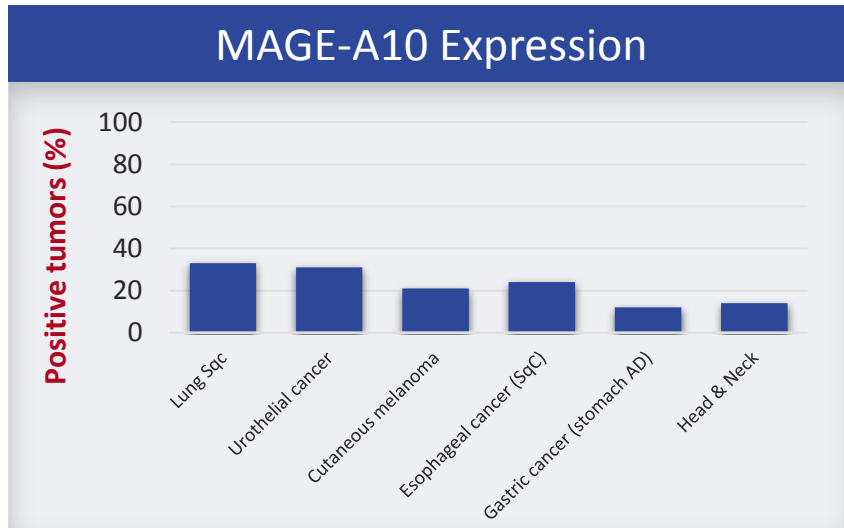
25%
Grade 3-5

JCAR 014 CAR-T in NHL

10%
Severe

Deep Pipeline Across Major Cancers

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 ¹	Europe ²
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

Deep Pipeline Across Major Cancers

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	<div><div></div></div>		
	Urothelial (bladder), melanoma, H&N	modified CTX / FLU	<div><div></div></div>		
MAGE-A4	Urothelial, melanoma, H&N, ovarian, NSCLC, esophageal, gastric		<div><div></div></div>		

Complete

Ongoing

Planned

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

Deep Pipeline Across Major Cancers

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

Tumor Overlap Examples



Lung Squamous Cell

NY-ESO-1	22%
MAGE-A10	33%
MAGE-A4	60%
Expression by 1 or more	65%



Urothelial Cancer

NY-ESO-1	24%
MAGE-A10	31%
MAGE-A4	35%
Expression by 1 or more	48%



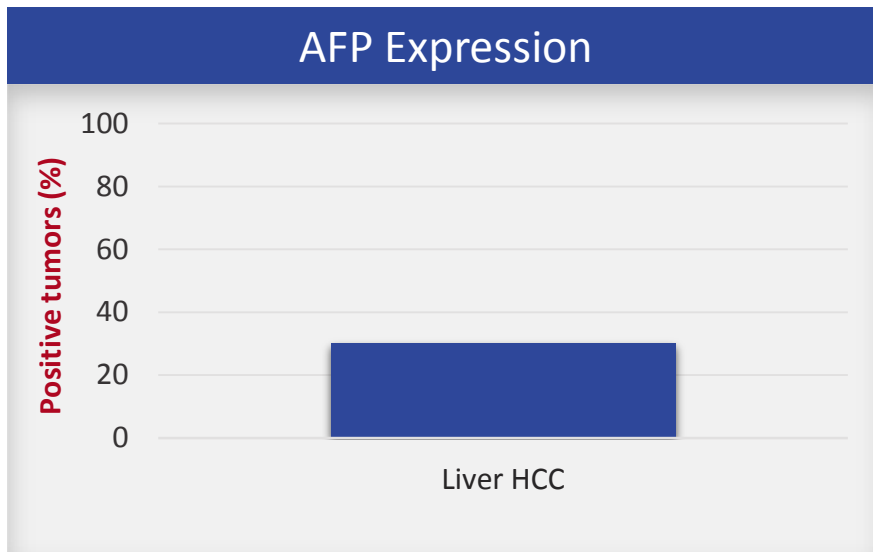
Head & Neck Cancer (squamous cell)

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

Deep Pipeline Across Major Cancers

AFP SPEAR T-cell Development Program: Hepatocellular cancer

SPEAR target	Indication	Notes	Pre-IND	Phase I / II	Registration
AFP	Hepatocellular cancer	Modified CTX / FLU	<div><div></div></div>	<div><div></div></div>	<div><div></div></div>
			Complete	Ongoing	Planned



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

Estimated Annual Deaths

	US ¹	Europe ²
Liver HCC	27,170	62,152

2017/2018 Milestones:
Data from study in hepatocellular cancer

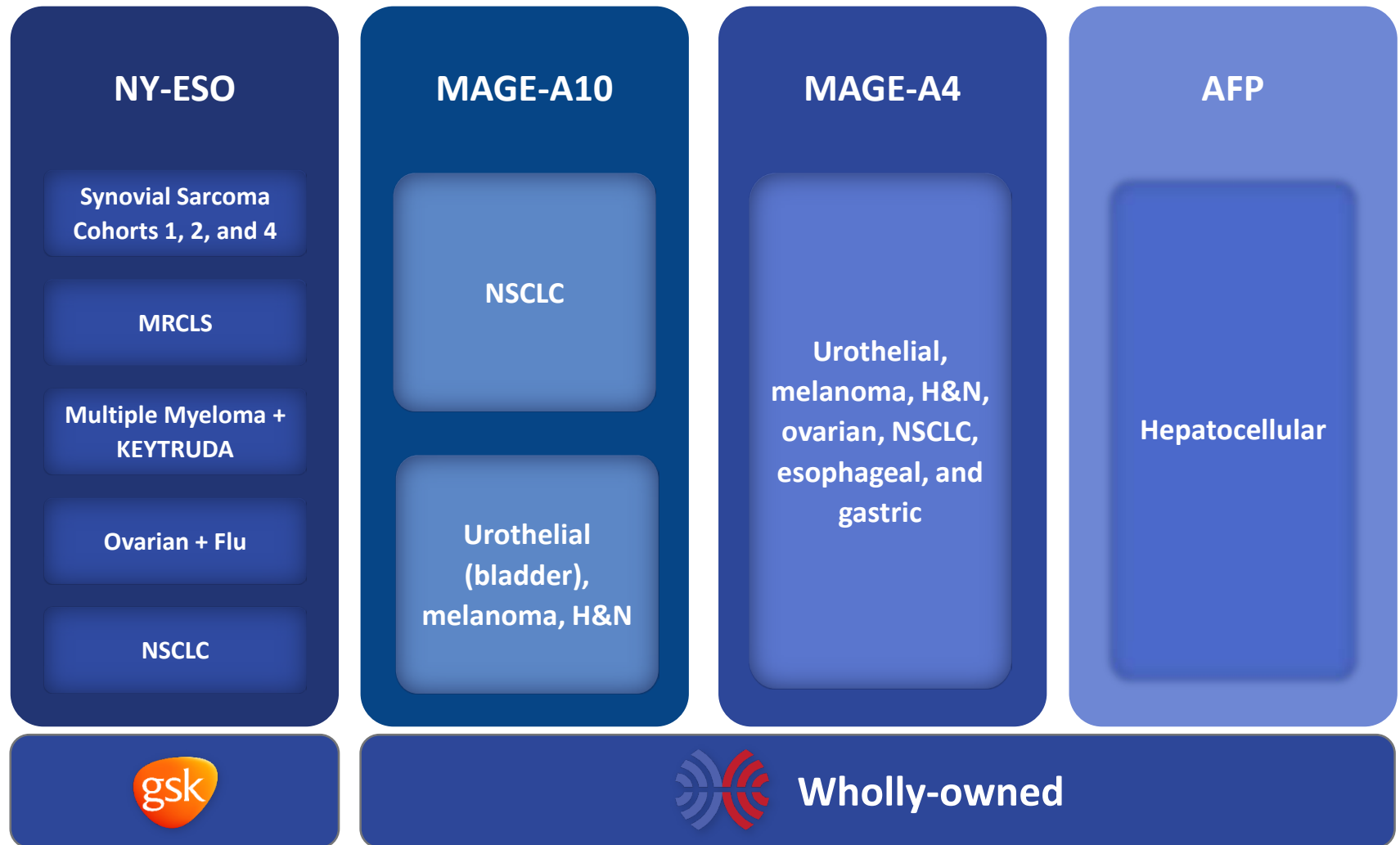
1. Source: seer.cancer.gov; <http://www.cancer.org>; 2016 data
2. Source: eco.iarc.fr/eucan; 2012 data

Unmatched Clinical Pipeline of Affinity Enhanced TCRs

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

2017: A Year of Significant Data Delivery

Potential for Data from Multiple SPEAR T-cell Therapies in 2017 and 2018





Beyond the Clinical Pipeline

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



- 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

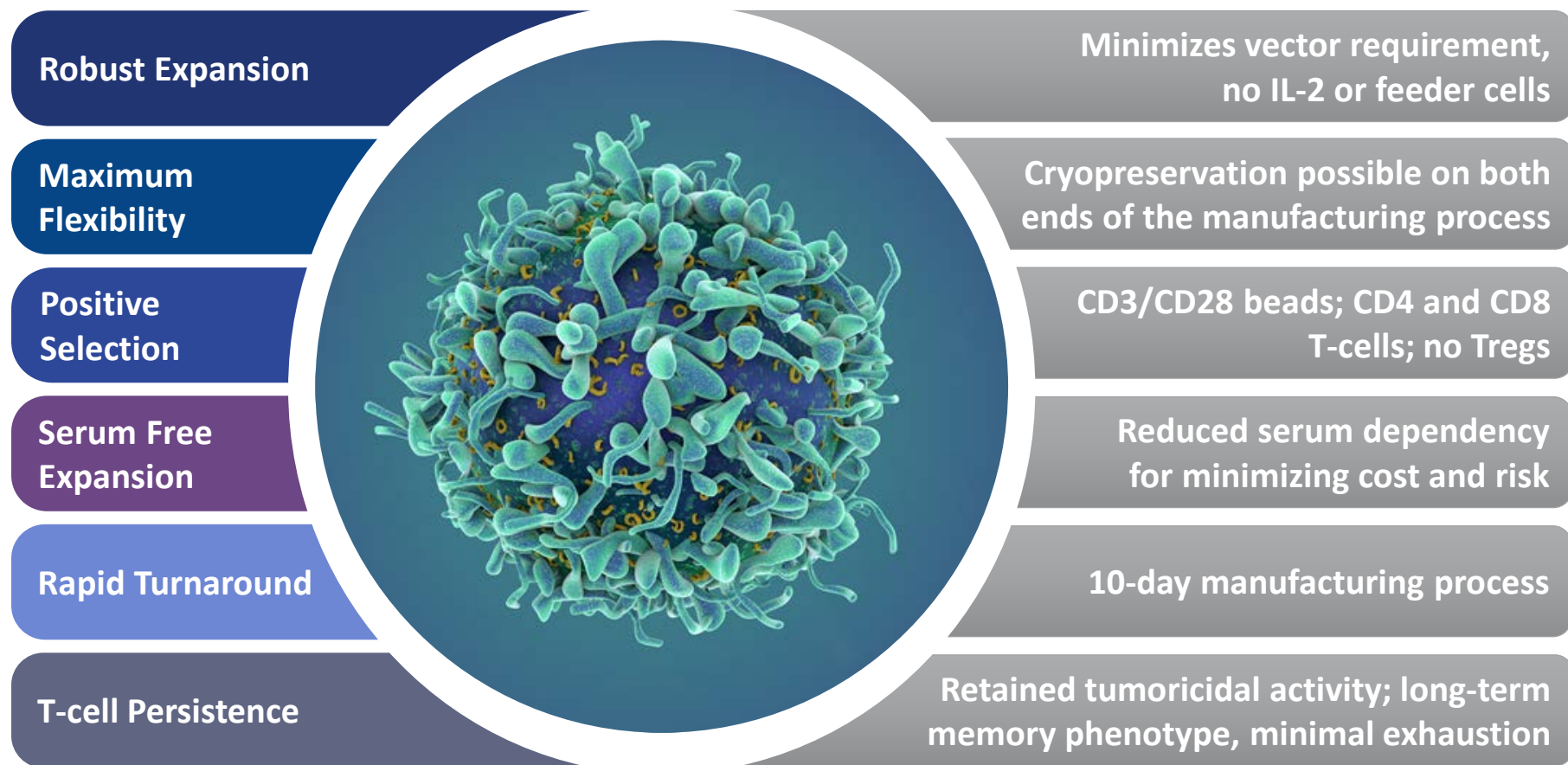
Global Technology Network: Partnering with Industry Leaders





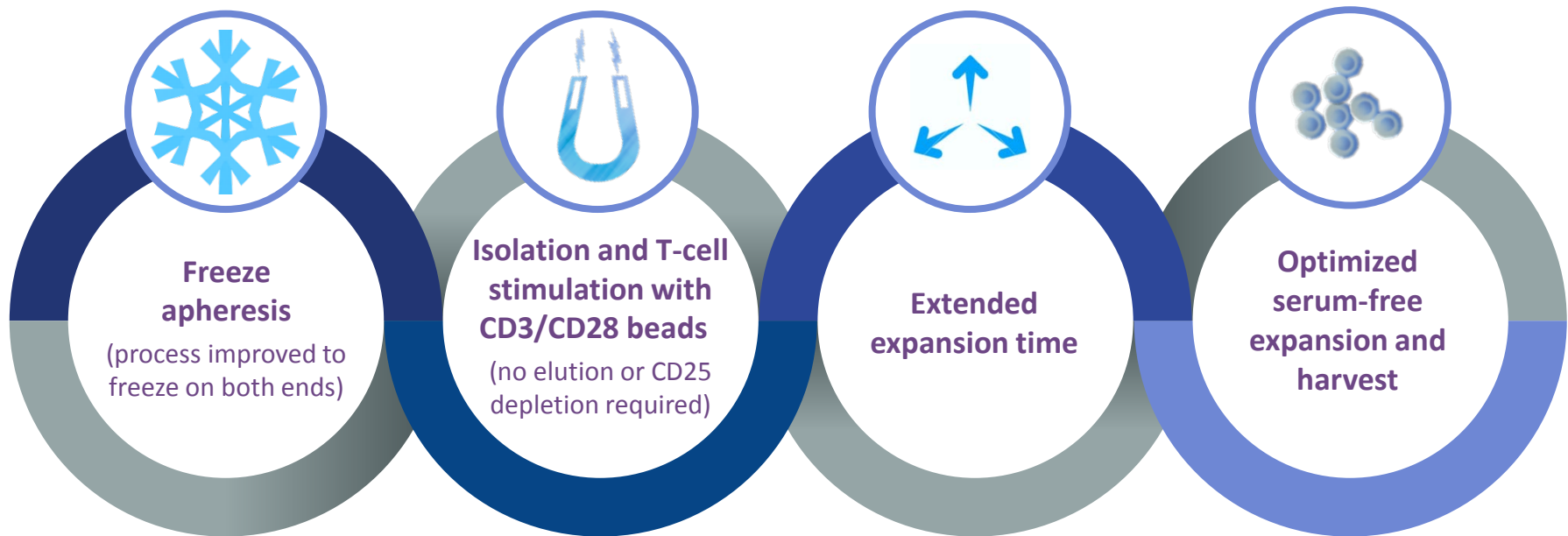
Optimizing T-cell Product Manufacturing

Advantages of Adaptimmune's Manufacturing Process



Cell Manufacturing

Improved Efficiency over Academic Process





Financial Update

Strong Financial Position

Third Quarter 2016 Financial Results

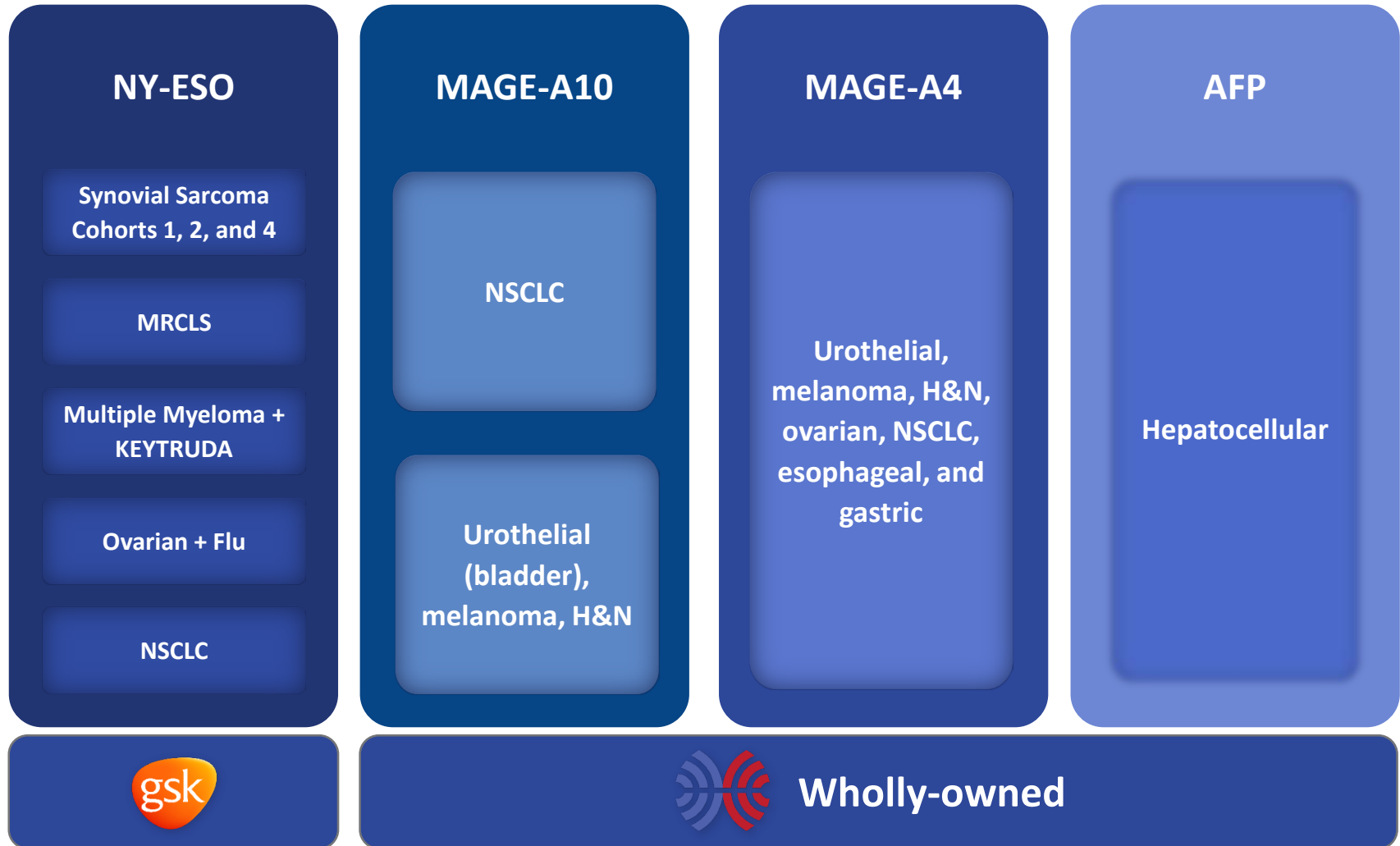
- Financial position as of September 30, 2016
 - \$140.4 million of cash and cash equivalents
 - \$47.1 million of short-term deposits
 - Combined represents a total liquidity position of \$187.5 million*
- Will fund operations through mid-2018**

* 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

2017: A Year of Significant Data Delivery

Potential for Data from Multiple SPEAR T-cell Therapies in 2017 and 2018





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