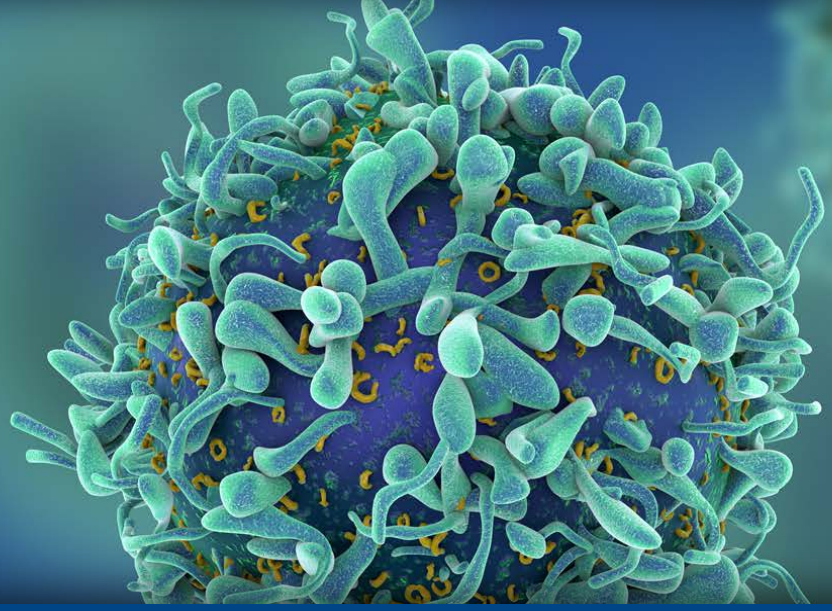

March 2017

Corporate Presentation

Adaptimmune

TRANSFORMING T CELL THERAPY

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 Annual Report on Form 10-K filed with the Securities and Exchange Commission (SEC) on March 13, 2017 and our other SEC filings.

We urge you to consider these factors carefully in evaluating the forward-looking statements herein and you 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 Positioned for Delivery in 2017/18

- Three wholly-owned INDs open (MAGE-A10, -A4 and AFP) in 8 tumor types
  - Momentum in patient screening and recruitment
  - Initial data likely 2H 2017 and 1H 2018
- Significant progress with NY-ESO* program
  - Plan to initiate registration study around end 2017, subject to regulatory process
  - Initial data from MRCLS, NSCLC and ovarian studies likely 2H 2017 and 1H 2018
  - Initiation of combination study with Keytruda®

* Under option to GSK

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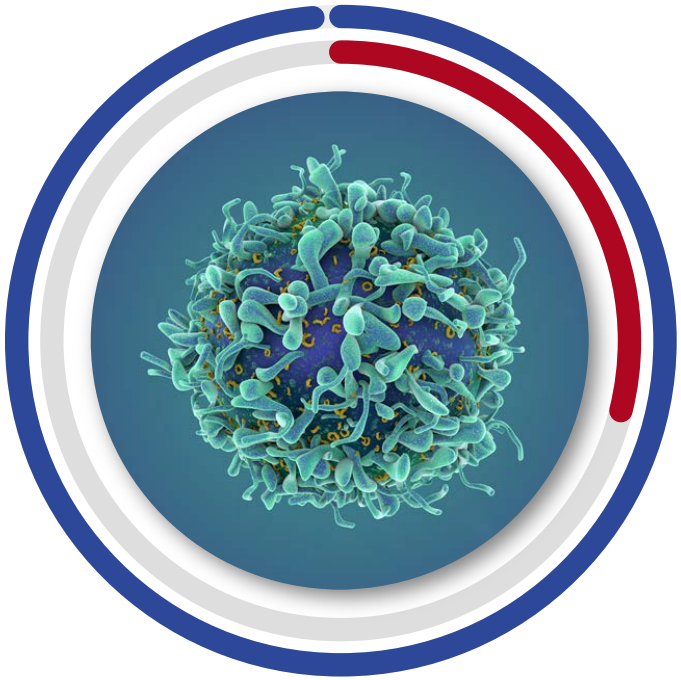
CAR-T vs TCR: Differences in Access to Human Proteome

Better Access to Peptides with T-cell Receptors



TCRs	**Nearly all proteins are available to TCRs**
	Access to extra- and intracellular proteins
	Potentially 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

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T-cells Play Critical Role in Cell-Mediated Immunity

TCRs Eliminate Damaged/Diseased/Foreign Cells, but Cancer Evades Detection

- Cells display status by presenting peptides on their surface using HLA molecules
  - Peptides in peptide-HLA complexes change if cell is damaged, cancerous or infected
- T-cells generally only recognize different “non-self” cells due to thymic selection
- T-cell recognition based on affinity of the TCR to the target peptide-HLA complex
- Multiple TCRs bind target peptide-HLA, which cluster to form an immune synapse
- T-cells release cytolytic granules, inducing target cell death
- However, T-cells have trouble recognizing cancer cells as targets
  - Cancer peptides are derived from normal, “self” proteins
  - Thymic selection deleted T-cells with high affinity to “self” proteins including cancer peptides
  - Cancer cells express a lower number of targets

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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

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Developing Novel TCR Therapies

Utilizing Proprietary Technology Platform to Develop Multiple Approaches

Cancer Testis Antigens

- Largely exclusive to tumor tissue; shown to be good targets
- 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

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Adaptimmune Pipeline Overview

Multiple Targets with Near-Term Clinical Milestones

GSK option	NY-ESO	• Clinical data in synovial sarcoma and multiple myeloma • Active trials in synovial sarcoma, MRCLS, ovarian and non-small cell lung cancer (NSCLC) • Planned registration studies in synovial sarcoma
Wholly-owned	MAGE-A10	• IND open • Studies enrolling in head & neck, melanoma, urothelial (bladder), and NSCLC
	AFP	• IND open • Study in hepatocellular cancer in 2017
	MAGE-A4	• IND open (announced January 2017) • Multi-tumor study in 2017

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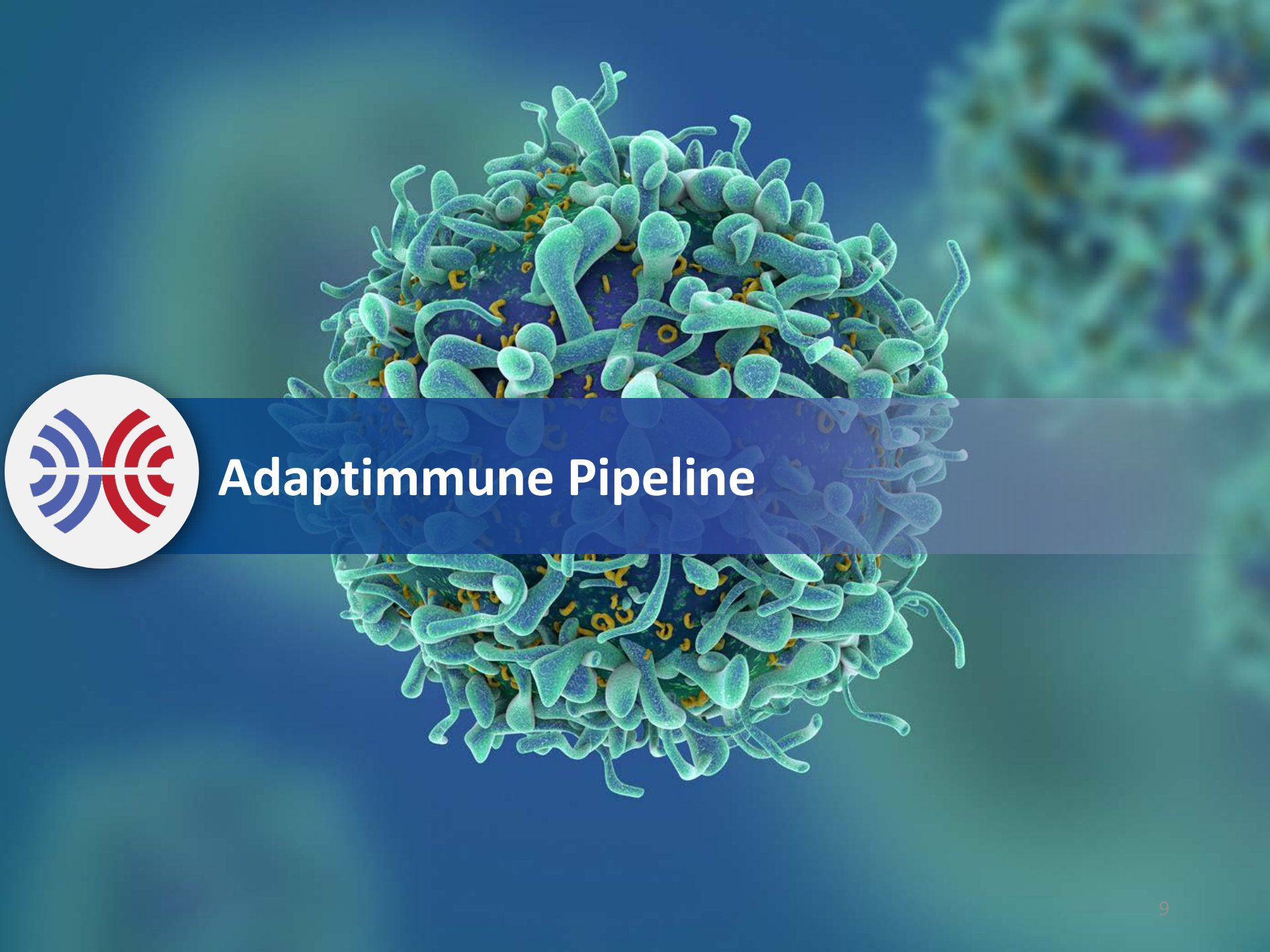


Adaptimmune Pipeline

Deep Pipeline Across Major Cancers

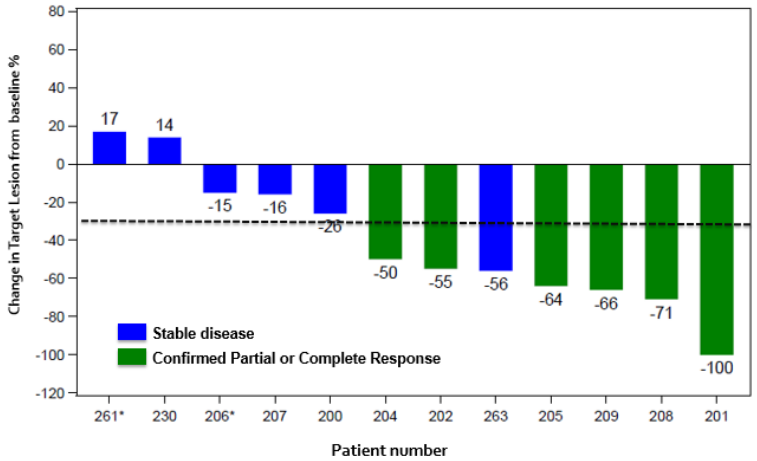
NY-ESO SPEAR T-cell Development Program: Sarcoma

SPEAR target	Indication	Notes	Pre-IND	Phase I / II	Registration
NY-ESO	Synovial sarcoma	Registration			
		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			

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



2017/2018 Milestones:

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

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Deep Pipeline Across Major Cancers

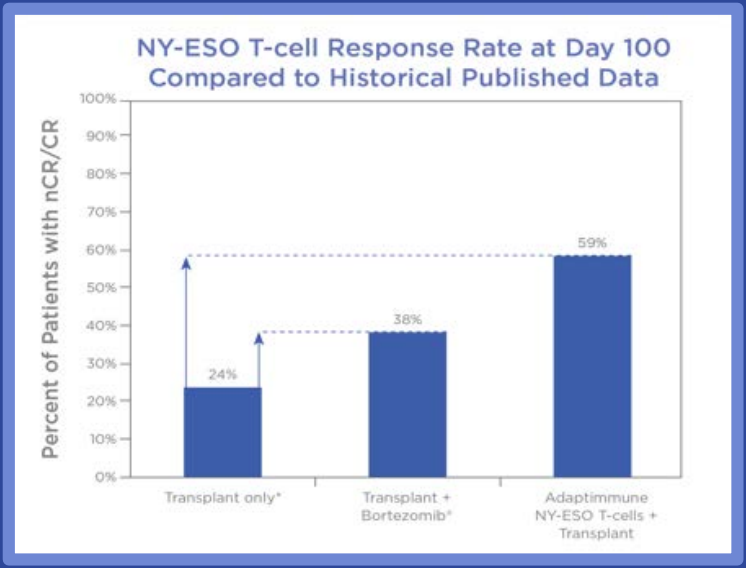
NY-ESO SPEAR T-cell Development Program: Multiple Myeloma

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

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



2017/2018 Milestones:

Initiation of combination study with KEYTRUDA®; data in 2018

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Deep Pipeline Across Major Cancers

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

SPEAR target	Indication	Notes	Pre-IND	Phase I / II	Registration
NY-ESO	Ovarian	No fludarabine			
		modified CTX / FLU			
	Melanoma	No fludarabine			
	Non-small cell lung cancer (NSCLC)	modified CTX / FLU			

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

2017/2018 Milestones:
Data from studies in NSCLC and ovarian (with FLU)

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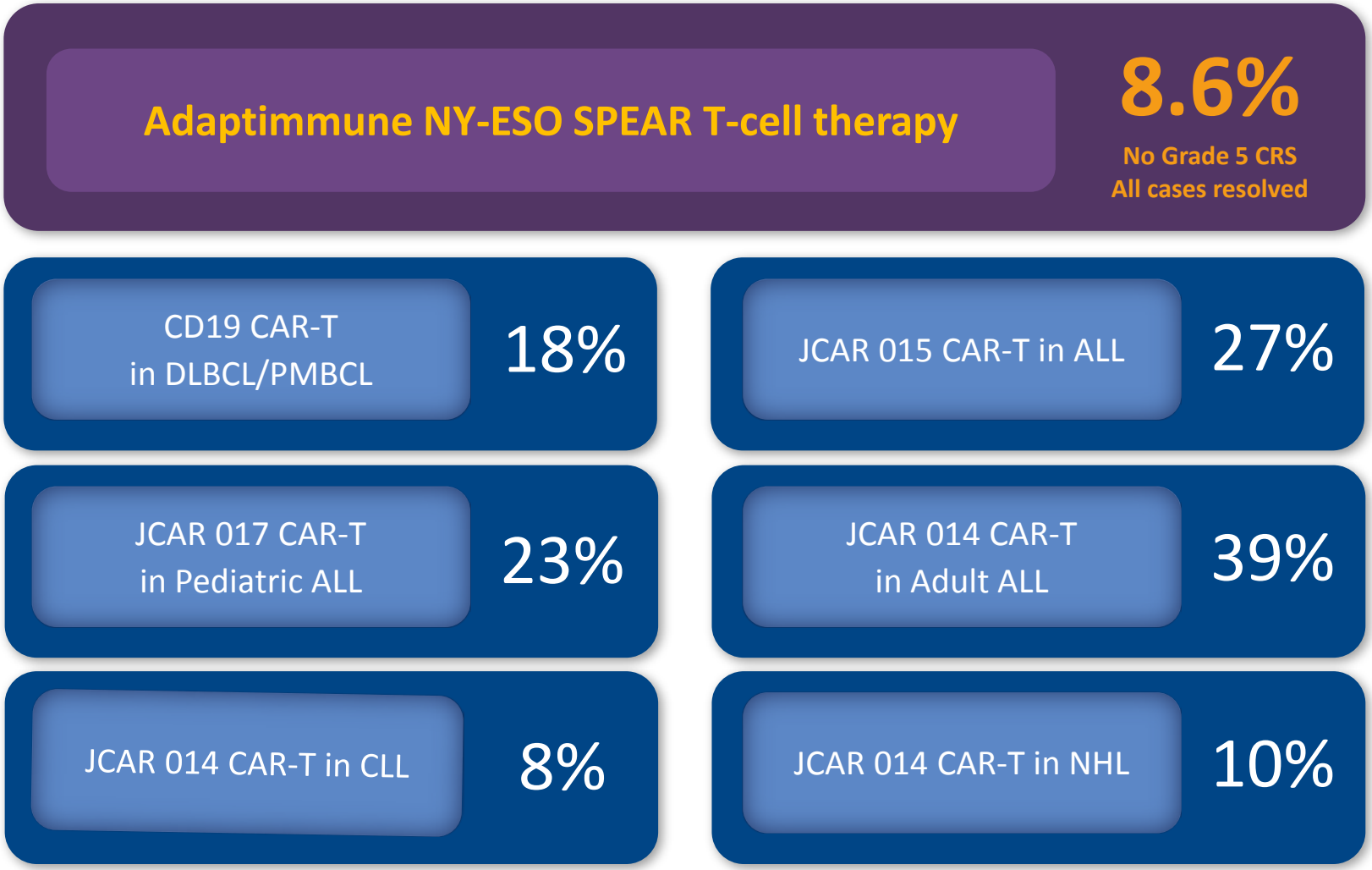
Frequency of Grade 3+ CRS: NY-ESO SPEAR-T vs CAR-Ts



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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**

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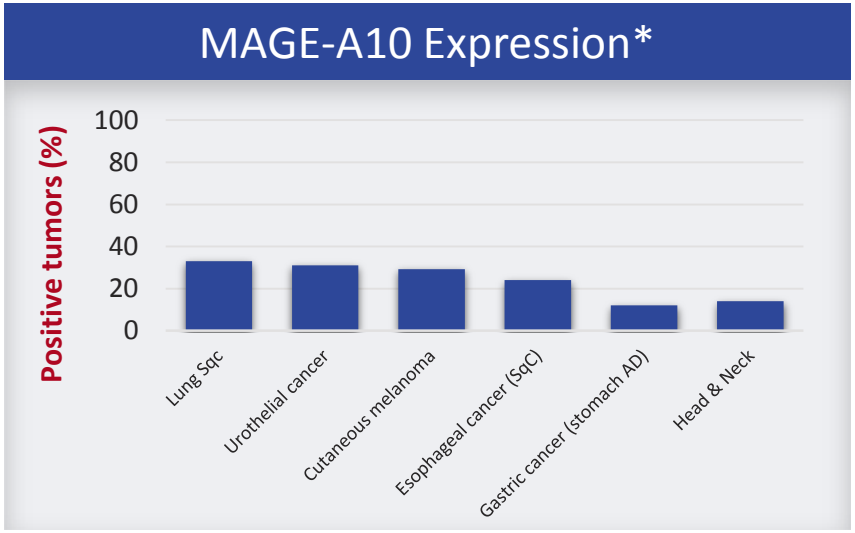
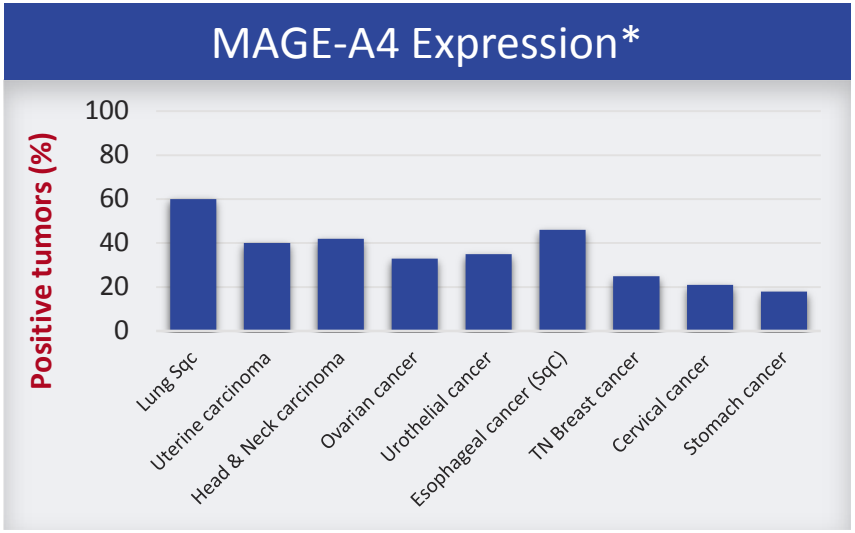
Deep Pipeline Across Major Cancers

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





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

Estimated Annual Deaths

	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

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1. Source: seer.cancer.gov; http://www.cancer.org/; 2016 data
2. Source: eco.iarc.fr/eucan; 2012 data
* Antigen expression in table is not exhaustive

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

2017/2018 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

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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%

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

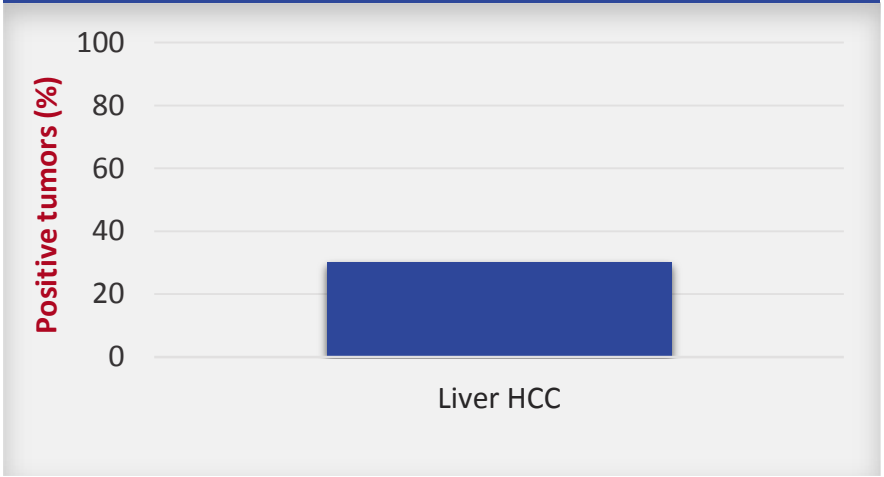
Deep Pipeline Across Major Cancers

AFP SPEAR T-cell Development Program: Hepatocellular cancer

SPEAR target	Indication	Notes	Pre-IND	Phase I / II	Registration
AFP	Hepatocellular cancer	Modified CTX / FLU			

Complete | Ongoing | Planned

AFP Expression



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

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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			
		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				

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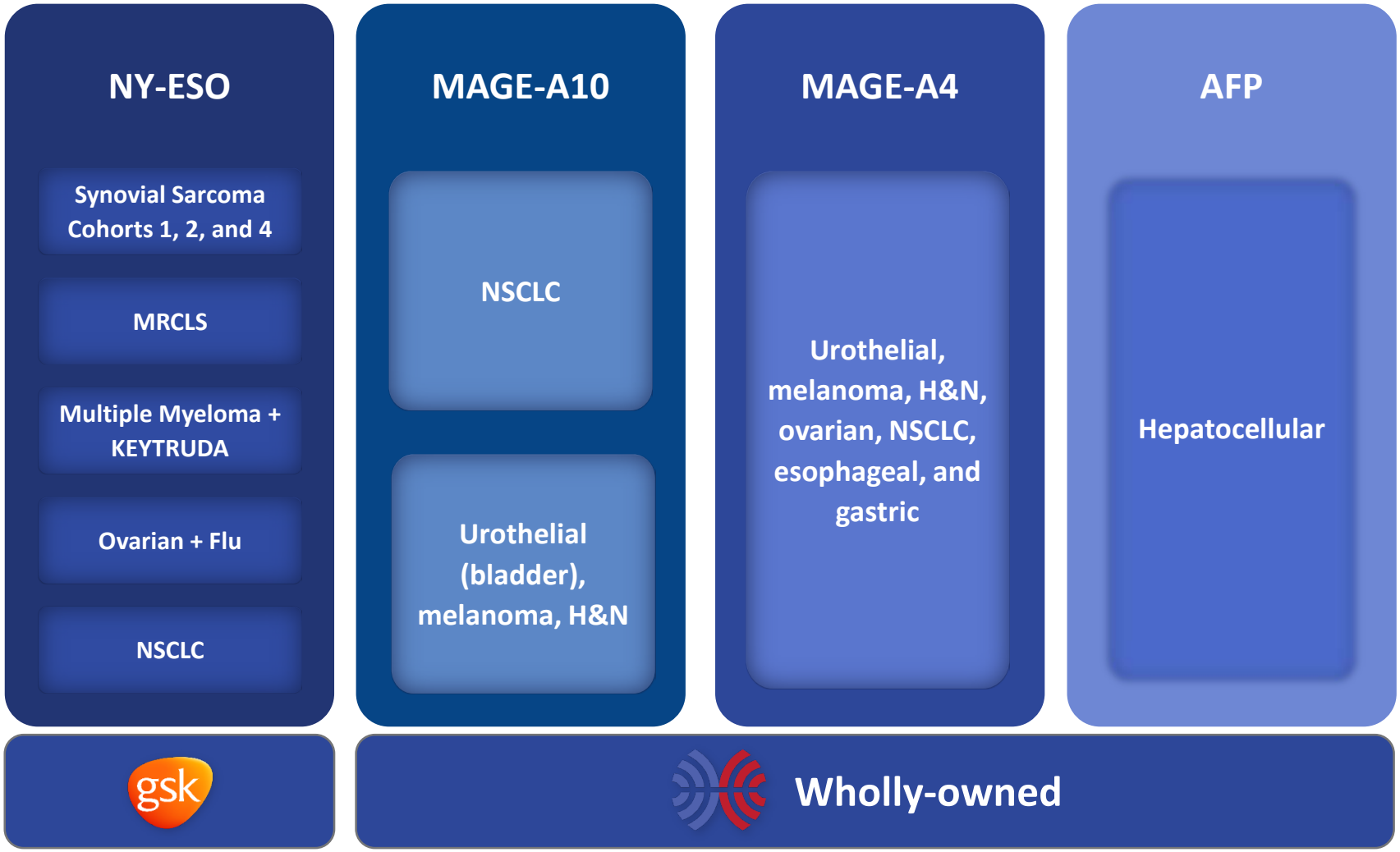
Complete **Ongoing** **Planned**

2017: A Year of Significant Data Delivery

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



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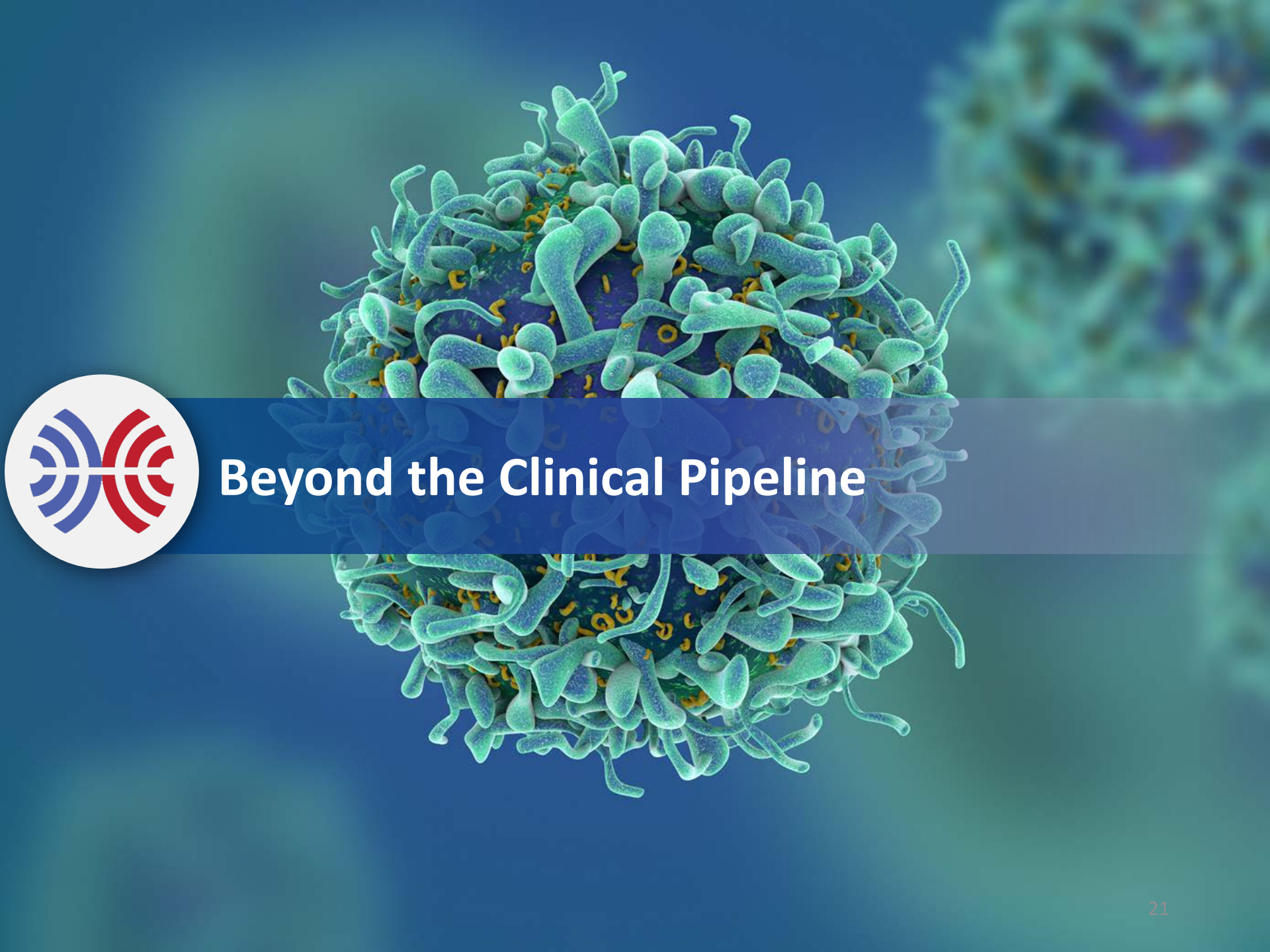

Beyond the Clinical Pipeline

Leading Innovation in Engineered T-cell Therapy

Addressing 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

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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

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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

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Global Technology Network: Partnering with Industry Leaders

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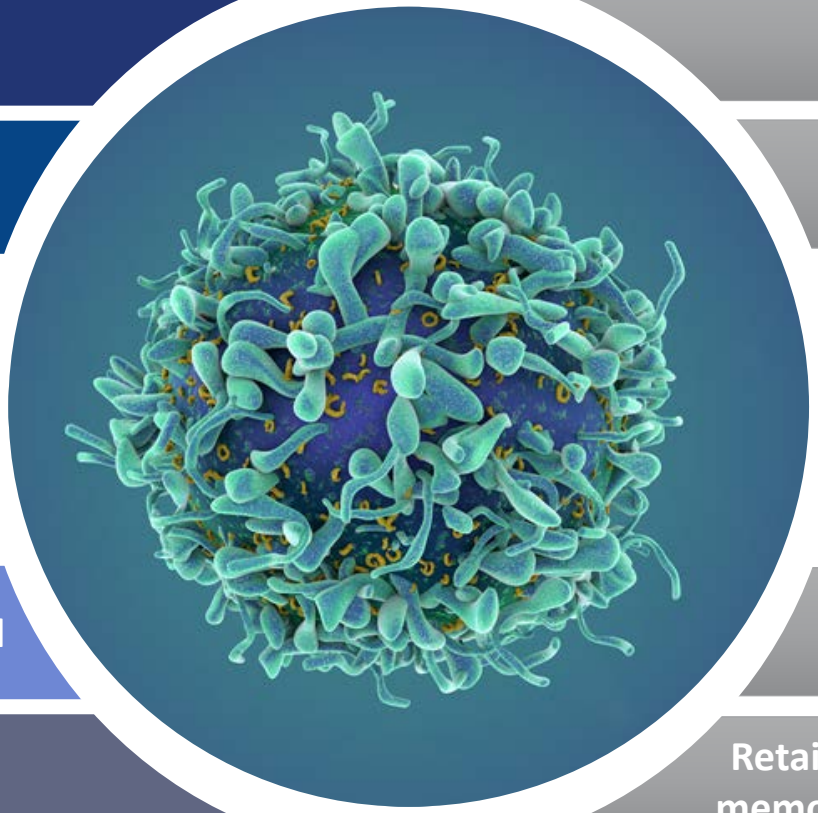
Optimizing T-cell Product Manufacturing

Advantages of Adaptimmune's Manufacturing Process

Robust Expansion	**Minimizes vector requirement, no IL-2 or feeder cells**
Maximum Flexibility	**Cryopreservation possible on both ends of the manufacturing process**
Positive Selection	**CD3/CD28 beads; CD4 and CD8 T-cells; no Tregs**
Serum Free Expansion	**Reduced serum dependency for minimizing cost and risk**
Rapid Turnaround	**10-day manufacturing process**
T-cell Persistence	**Retained tumoricidal activity; long-term memory phenotype, minimal exhaustion**



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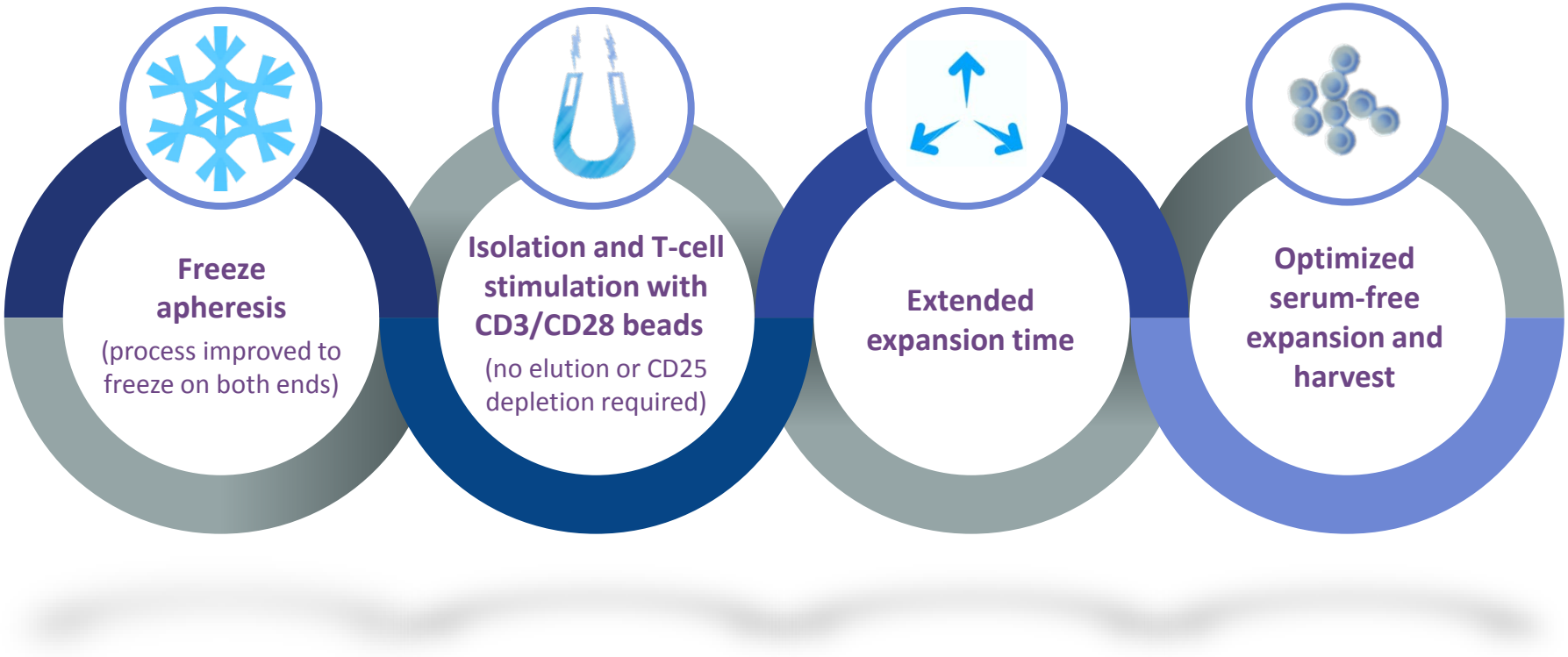
Cell Manufacturing

FDA Allowance to Proceed with Improved Process



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Financial Update

Financial Update

Funds Operations through Mid-2019*

- Financial position as of December 31, 2016
  - $158.8 million of cash and cash equivalents
  - $22.7 million of short-term deposits
  - Combined represents a total liquidity position of $181.5 million**
- March 2017 public offering (15.7M ADS, $4.20 per ADS)
  - ~$61.8 million net proceeds, including impact of underwriters option

* Guidance excludes any new business development and is based on current company assumptions

** 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

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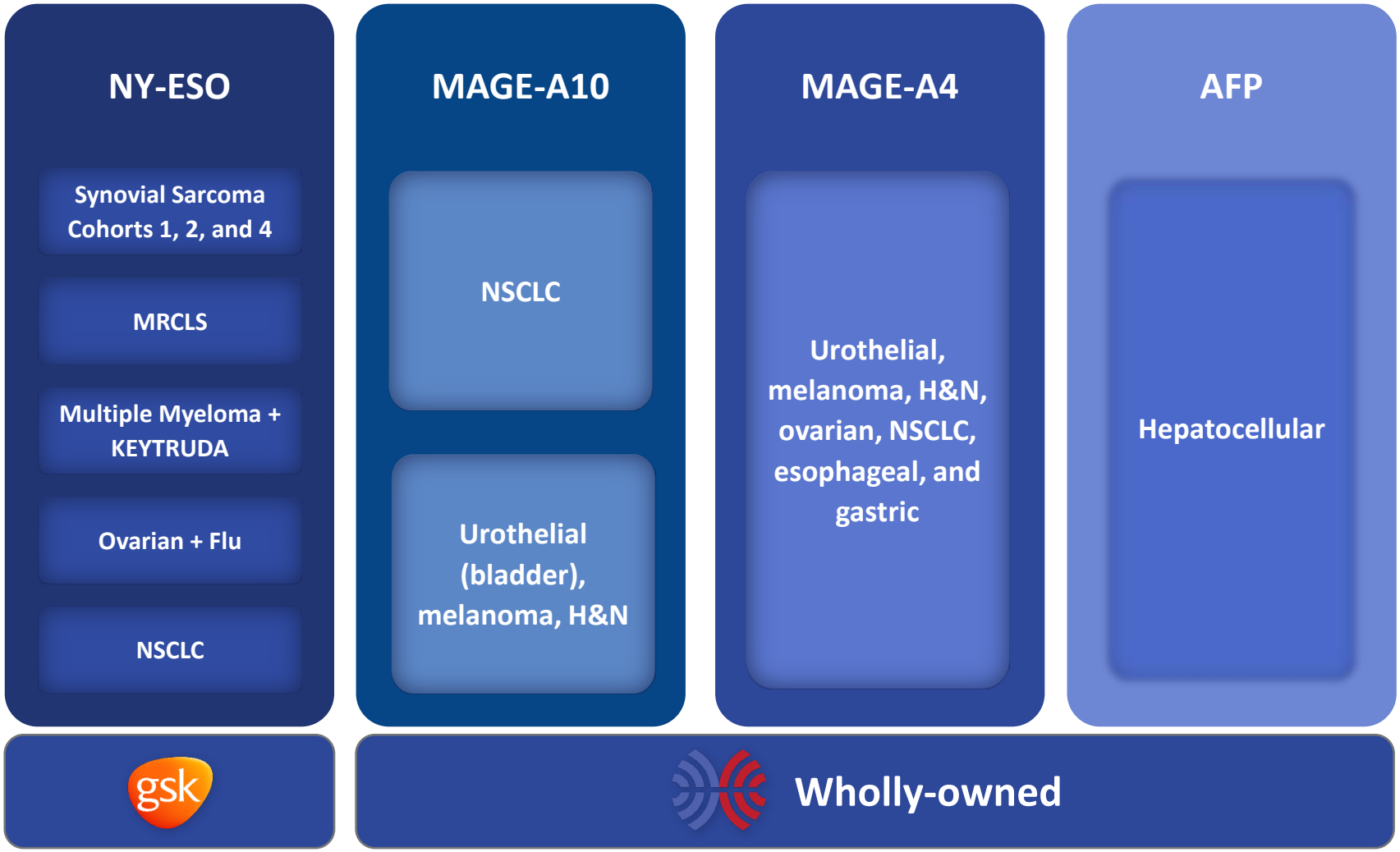
2017: A Year of Significant Data Delivery

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



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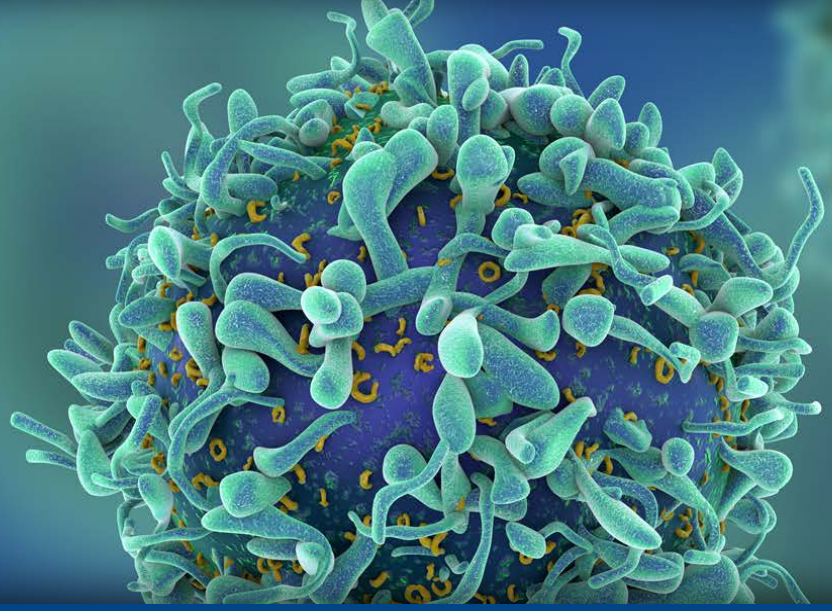

March 2017

Corporate Presentation

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