ADAPTIMMUNE INVESTOR PRESENTATION

August 2016

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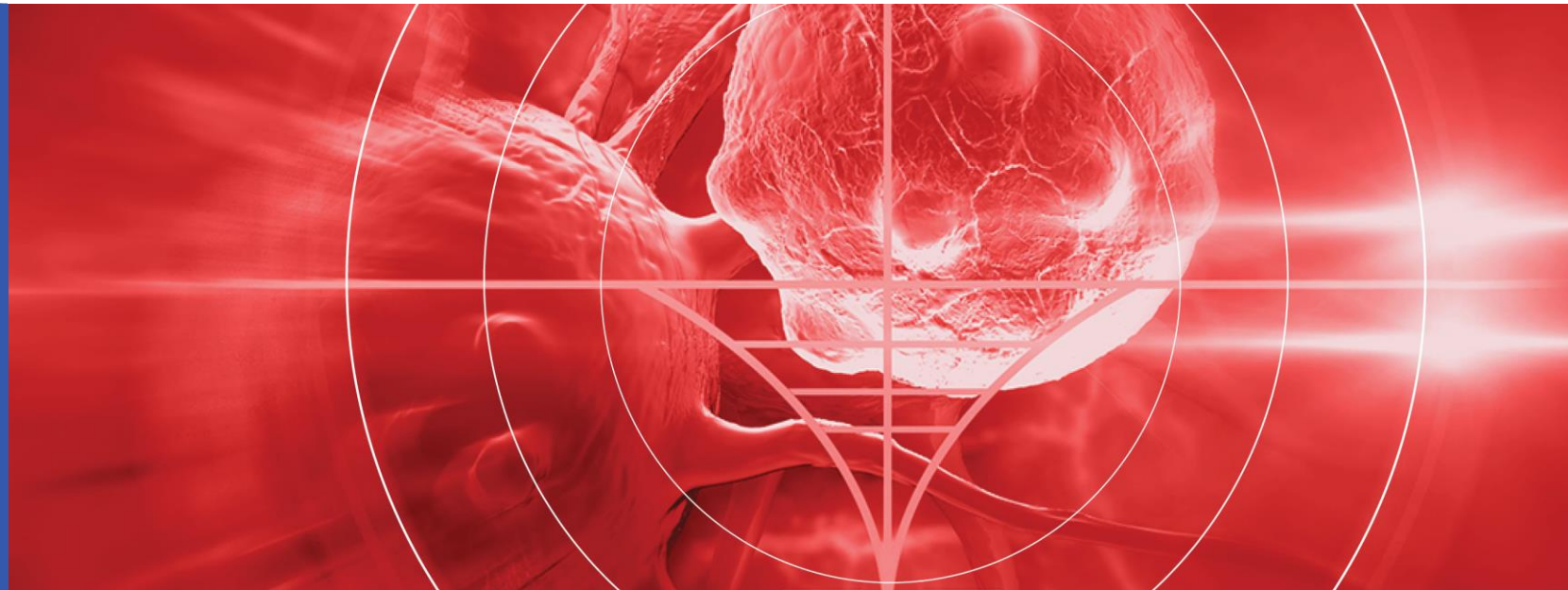
TRANSFORMING T CELL THERAPY



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 Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (SEC) on August 8, 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

- Scientific leadership in the field of T-cell engineering
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- Most compelling clinical data in the field
- Deep pipeline across major cancers
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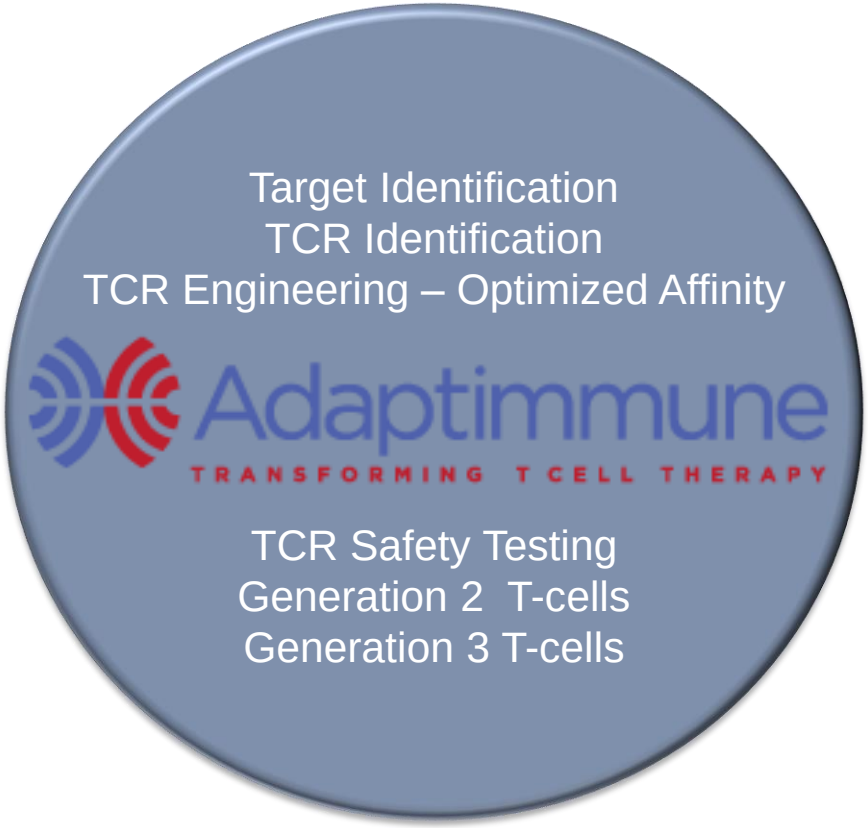
ADAPTIMMUNE SPEAR T-CELL PLATFORM

UNIQUELY ADDRESSES TARGET IDENTIFICATION, TCR AFFINITY & SAFETY



SPEAR
T-CELLS

Specific
Peptide
Enhanced
Affinity
Receptor

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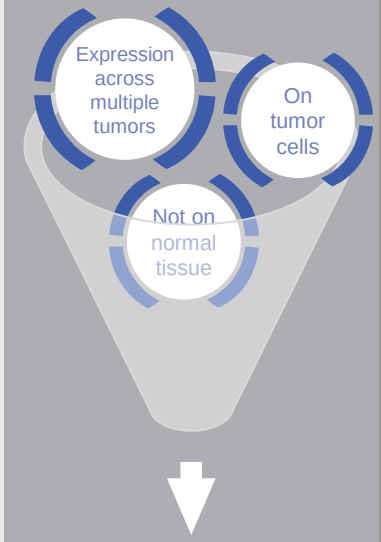
THE LEADER IN TCR T-CELL THERAPY

FOUR KEY COMPONENTS OF EFFECTIVE DELIVERY

THE RIGHT TARGETS
>30,000 peptides



Only low risk targets selected for TCR programs

THE RIGHT AFFINITY
Multiple, soluble TCRs

Potent and specific enhanced TCRs

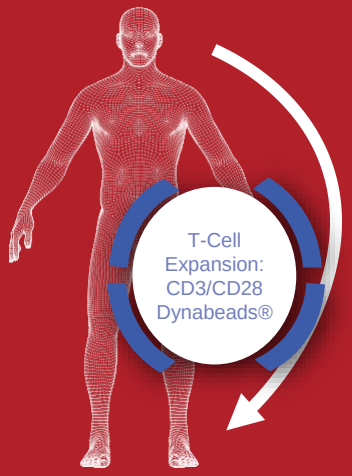
SAFETY TESTING
Enhanced TCRs

MOLECULAR Analysis

HUMAN CELL Testing

Clinical candidate

PROPRIETARY MANUFACTURING



TCR therapies with long-term persistence

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WORKING WITH LEADING CANCER CENTERS

Memorial Sloan Kettering Cancer Center

STANFORD UNIVERSITY

NATIONAL CANCER INSTITUTE

COMPREHENSIVE CANCER CENTER
UNIVERSITY OF MICHIGAN HEALTH SYSTEM

EMORY UNIVERSITY

DEEP PIPELINE ACROSS MAJOR CANCERS

NY-ESO SPEAR T-CELL DEVELOPMENT PROGRAM

INDICATION	PRECLINICAL / PHASE I/II / PIVOTAL	STATUS
Synovial Sarcoma	Cohort 1: High NY-ESO +CTX / flu	Complete
	Cohort 2: Low NY-ESO +CTX / flu	Enrolling
	Cohort 3: CTX / no flu	Enrolling
	Cohort 4: CTX / flu*	Initiate 2H2016
	Pivotal: CTX / flu*	Initiate mid-2017
Myxoid/Round Cell Liposarcoma	Pivotal: CTX / flu*	Initiate 4Q16-1Q17
Multiple Myeloma	25 pts, auto SCT (Rapoport Nat Med, 2015)	Complete
	Combination study	Initiation in 1H2017
Ovarian	6 pts, no flu; no objective response (ASCO 2016)	Complete
	10 pts; CTX / flu*	Enroll 2H2016
Melanoma	6 pts, no flu; no objective response (ASCO 2016)	Complete
	Combination study	Evaluating
Non-small cell lung cancer	10 pts, Stage IIIb/IV, CTX / flu*	Enrolling; data in 2017

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Complete | Ongoing | Planned

* Modified CTX/ flu (CTX 600 mg/m^2 / fludarabine 30mg/m^2) X 3 days

DEEP PIPELINE ACROSS MAJOR CANCERS

LATEST NY-ESO DATA

- Demonstrate the importance of pre-conditioning
  - Excellent response rates in sarcoma (CTX and Flu)
  - No responses to date in third cohort of sarcoma (CTX alone)
  - No responses in ovarian, melanoma (CTX alone)
    - Protocols being revised; melanoma combination trial in planning
  - Persistence much longer (21 months to 3 years+) with appropriate pre-conditioning
    - Poorer expansion and persistence with just CTX
- Although patient populations differ, incidence of CRS lower in frequency and severity than reported* with CD19 CAR-T therapy
  - CRS in only 15 percent of patients, only one of which was Grade 4
  - No evidence of type of neurotoxicity reported with CAR-19 T-cell therapies

*Bonidantet al (2016) *Molecular Therapy Oncolytics.* Toxicity and management in CAR T-cell therapy

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DEEP PIPELINE ACROSS MAJOR CANCERS

WHOLLY-OWNED SPEAR T-CELLS AND TCRs

INDICATION	RESEARCH	PRE-IND	PHASE I/II	STATUS
Non-Small Cell Lung Cancer (NSCLC)	MAGE-A10 SPEAR T-cell			Enrolling; data 2017
Bladder Melanoma Ovarian	MAGE-A10 SPEAR T-cell			Initiate in 2016; data 2017
Hepatocellular cancer	AFP SPEAR T-cell			IND open; start enrollment 1H2017
Multiple cancer types	MAGE-A4 SPEAR T-cell			IND submission 1Q2017
Multiple cancer types	Generation 2 and 3 TCRs			INDs 2017+
Multiple cancer types	Undisclosed			INDs 2017+

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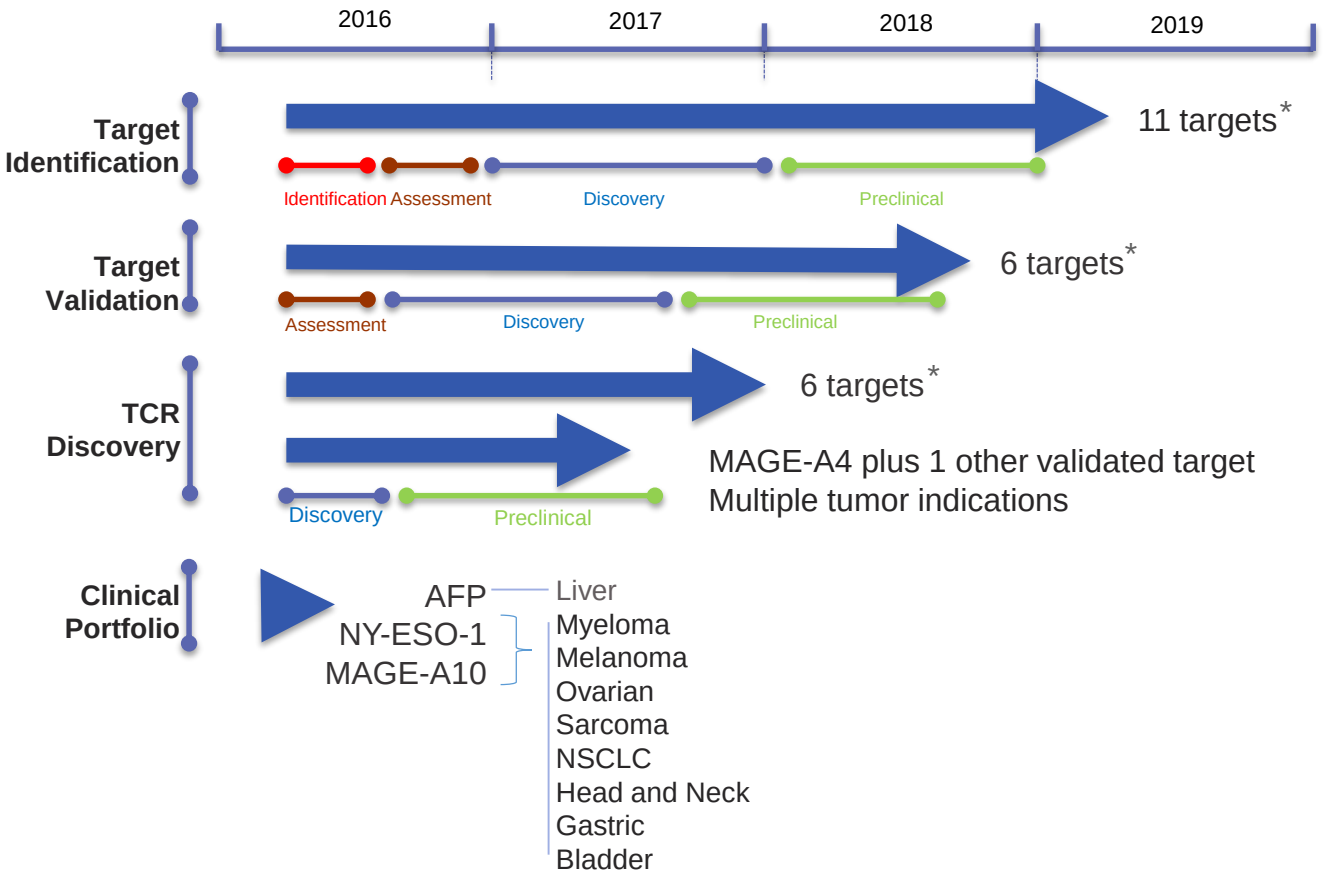
BUILDING A PIPELINE

MULTIPLE FIRST GENERATION INDs FROM 2017 ONWARDS



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* Early targets – attrition expected

DEEP PIPELINE ACROSS MAJOR CANCERS

PIPELINE OF AN INDUSTRY – NOT JUST A COMPANY

- Cancer targets not accessible by current antibody / CAR-T therapies
  - 12 undisclosed cancer targets in research and safety testing
  - Assessing 2-3 targets for each of 20 most common cancers
  - Announced patents filed for 60+ additional targets
- Improve potency / durability of TCR responses
  - File first IND for next generation (2nd and 3rd) TCRs in 2017
  - Exploring combination studies (PD-1 receptor inhibitor in 2017)

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STRONG FINANCIAL POSITION

SECOND QUARTER 2016 RESULTS

- Financial position as of June 30, 2016
  - $150.9 million of cash and cash equivalents
  - $55.0 million of short-term deposits
  - Combined represents a total liquidity position of $205.9 million*
- Financial guidance, excluding potential new business development:
  - Expect decrease in total liquidity position between $80 and $100 million for full year 2016
  - Expect total liquidity position at December 31, 2016 at least $150 million
  - Current position should last into 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

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PROVEN ABILITY TO EXECUTE

MILESTONES ACHIEVED IN 2016

COMPLETED	TARGET DATE	MILESTONE
☑	Q1 2016	Expand into autoimmune
☑	Q1 2016	Expand strategic immunotherapy collaboration with GSK
☑	Q1 2016	US breakthrough therapy designation for NY-ESO SPEAR T-cells in synovial sarcoma
☑	Q1 2016	Secure US orphan drug designation for NY-ESO SPEAR T-cells in soft tissue sarcoma
☑	1H 2016	File IND for AFP SPEAR T-cells in hepatocellular studies; study now open
☑	1H 2016	Manufacturing supply agreement with Thermo Fisher for Dynabeads
☑	1H 2016	Next SPEAR T-cell target described: MAGE-A4
☑	1H 2016	Encouraging safety data for NY-ESO SPEAR T-cells (ASCO 2016)
☑	1H 2016	Describe data showing activity of NY-ESO SPEAR T-cells in low expressor population
☑	Q3 2016	Secure EU orphan medicinal product designation for NY-ESO SPEAR T-cells in synovial sarcoma
☑	Q3 2016	Secure EU PRIME support for NY-ESO SPEAR T-cells in soft tissue sarcoma

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PROVEN ABILITY TO EXECUTE

READOUTS WITH MULTIPLE TARGETS IN MULTIPLE CANCERS

COMPLETED	TARGET DATE	MILESTONE
☐	2H 2016	Initiate sarcoma cohort 4 (modified preconditioning regimen)
☐	4Q16 / 1Q17	**Initiate pivotal study of NY-ESO SPEAR T-cells in MRCLS**
☐	1Q 2017	**Submit IND for MAGE-A4 SPEAR T-cells**
☐	1H 2017	Initiate enrollment in AFP SPEAR T-cells in hepatocellular cancer
☐	1H 2017	**Initiate combination study of NY-ESO SPEAR T-cells in multiple myeloma**
☐	Mid-2017	**Initiate pivotal study of NY-ESO SPEAR T-cells in synovial sarcoma**
☐	2017	Potential for NY-ESO SPEAR T-cells combination study in melanoma
☐	2017	**Data from NY-ESO SPEAR T-cells in NSCLC**
☐	2017	**Data from MAGE-A10 SPEAR T-cells in NSCLC**
☐	2017	**Data from MAGE-A10 SPEAR T-cells in multiple cancers**
☐	2017+	Additional IND submissions of SPEAR T-cells
☐	2017+	IND submissions of 2^{nd} / 3^{rd} generation SPEAR T-cells

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Goal: first TCR T-cell therapy to market

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August 2016

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