
SPEAR-heading
THE CANCER
REVOLUTION
Adaptimmune
TRANSFORMING T CELL THERAPY
Corporate Deck
January 2021

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 5, 2020 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's vision and mission

Arming Cells. Against Cancer. For Good.

To transform the lives of people with cancer by designing and delivering cell therapies

Our 5-year core value drivers

5-year core value drivers

Two
marketed SPEAR T-cell products targeting MAGE-A4

- Synovial sarcoma
- Esophageal cancers (inc. EGJ)

Two
additional BLAs for SPEAR T-cell products

- Additional indications for MAGE-A4 targeted products
- ADP-A2AFP

Five
autologous products in the clinic

- HiT
- Next-gen TILs
- New targets
- Broader HLA coverage

Two
allogeneic products entering the clinic

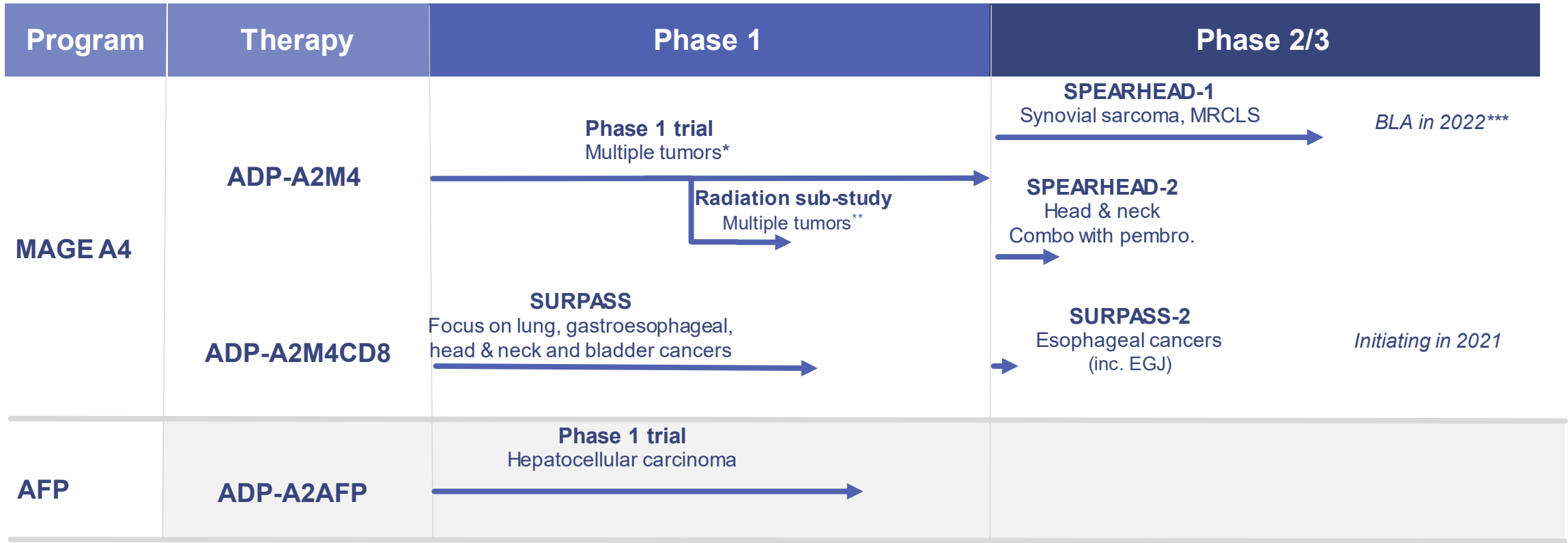
- SPEAR T-cell product targeting MAGE-A4
- HiT mesothelin – partnered with Astellas

Integrated Cell Therapy Capabilities
Research | Preclinical | Translational | Clinical | CMC | Regulatory | Commercial

EGJ: esophagogastric junction cancer; HiT: HLA-independent T-cell receptor (TCR); TIL: tumor infiltrating lymphocyte; CMC: chemistry, manufacturing, and controls

A strong autologous clinical pipeline in multiple clinical trials in 10 solid tumors

Goal to launch first TCR T-cell therapy in 2022



* Bladder, Melanoma, Head & Neck, Ovarian, Non-small cell lung cancer (NSCLC), Esophageal, Gastric, Synovial sarcoma, MRCLS

** Site specific protocol amendment with MD Anderson Cancer Center

***Planned for synovial sarcoma

MRCLS: myxoid/round cell liposarcoma; EGJ: esophagogastric junction cancers

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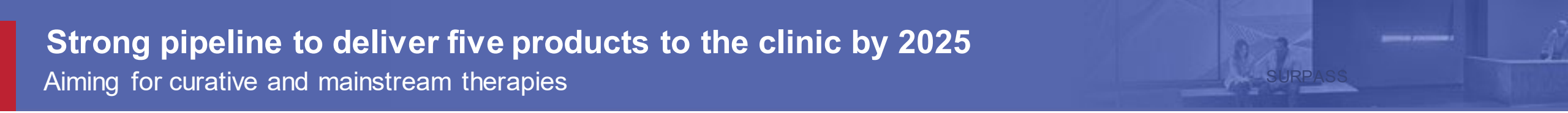
Strong pipeline to deliver five products to the clinic by 2025

Aiming for curative and mainstream therapies



Platform	Product	Discovery	Pre-clinical
Autologous SPEAR T-cells	ADP-A2AFP+CD8 next-gen		
	MAGE-A4 next-gen approaches (IL-7, IL-15, dnTGFbeta, PDE7)		
	IL-7/CCL19 Noile-Immune Biotech		
	Undisclosed ALPINEImmuneSciences		
	HLA-A1 MAGE-A4		
	HLA-A24 MAGE-A4		
	HLA-A24 AFP		
	PRAME gsk		
TILs	TIL IL-7		
HiTs	HiT targets (e.g., GPC3)		
Allogeneic	HiT mesothelin astellas		
	Allogeneic T-cells targeting MAGE-A4		

HiT: HLA-independent T-cell receptor (TCR); TIL: tumor infiltrating lymphocyte

Integrated capabilities delivering value across the pipeline

Examples of value creation

- SPEARHEAD-1 enrollment completed in ~12 months
- ADP-A2M4CD8 IND to registration directed trial ~2 years
- Security of vector supply and >90% reduction in costs
- Manufacturing innovation drives ~40% reduction in SPEAR T-cell therapy COGs

Integrated Cell Therapy Capabilities

Research | Preclinical | Translational | Clinical | CMC | Regulatory | Commercial

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Planned data updates and catalysts for 2021 and 2022

Funded into 2023

2021

- Planned SPEARHEAD-1 preliminary data at ASCO
- Initiate SURPASS-2 trial with ADP-A2M4CD8 in esophageal cancers*
- Planned SURPASS data update at ESMO
- Planned ADP-A2AFP Phase 1 trial data update at ILCA
- Planned radiation sub-study data update at ASTRO
- Planned update on additional translational data at SITC
- Planned SPEARHEAD-1 full data update at CTOS

2022

- Planned to file BLA for ADP-A2M4 for people with synovial sarcoma
- Planned ADP-A2M4 launch in synovial sarcoma in the US
- Planned Preclinical pipeline program data updates
- Planned Allogeneic program update
- Planned SPEARHEAD-2 initial clinical data
- Planned SURPASS-2 initial clinical data
- Planned first trial with TIL-IL7

Two marketed SPEAR T-cell products targeting MAGE-A4

Two additional BLAs for SPEAR T-cell products

Five autologous products in the clinic

Two allogeneic products entering the clinic

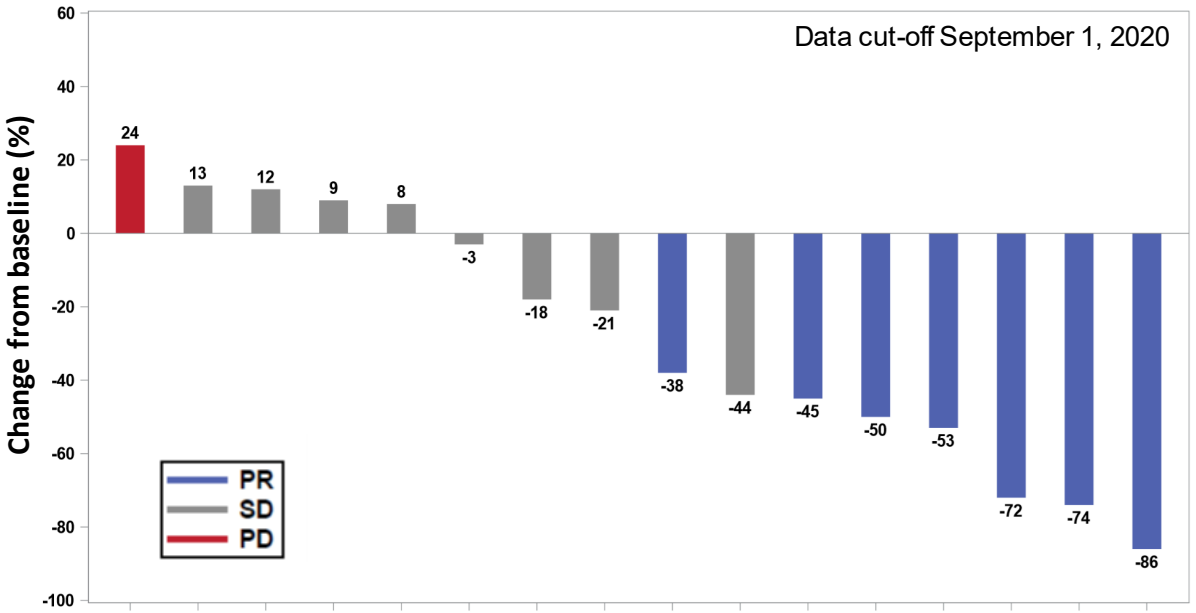
All data updates subject to congress acceptance

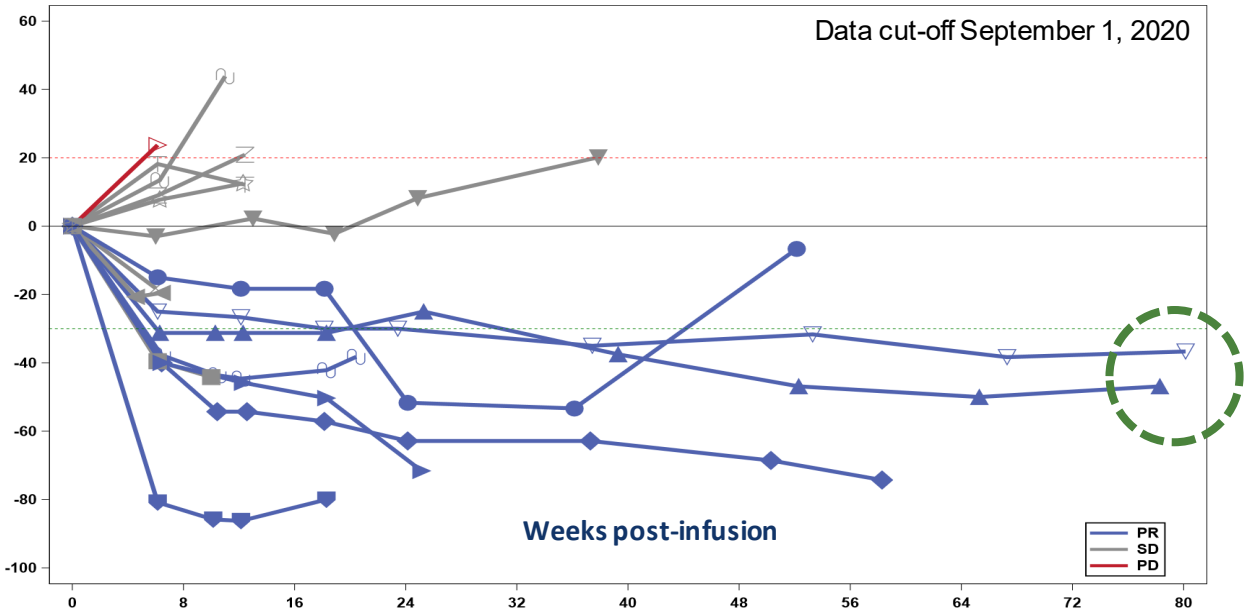
*includes EGJ (esophagogastric junction cancer)

Clinical and market potential for SPEAR T-cells targeting MAGE-A4

Durable responses in synovial sarcoma

Impressive efficacy observed in ADP-A2M4 Phase 1 trial





ctos

Overall Response Rate of 44% and Disease control rate of 94%

Considerably superior* to response rates observed with available 2nd line therapies in synovial sarcoma

PR: partial response; SD: stable disease; PD: progressive disease

*Pollack S, et al. *Cancer Medicine.* 2020;9:4593–4602; Seto T, et al *Med. Sci*. 2019, 7, 48; van der Graaf WT, et al. 2012, *Lancet,* 379(9829), 1879-1886

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Synovial sarcoma – First commercial opportunity for SPEAR T-cells targeting MAGE-A4

Preparing to scale up for further indications

Indication	Mortality US and EU*	MAGE-A4 Expression **	Potential MAGE-A4 +ve Patients	Potential MAGE-A4 +ve Patients Factored for HLA***
Synovial sarcoma	1,804+	67 %	1,209	496
Myxoid/ round cell liposarcoma	2,000	34 %	680	279
				Total MAGE-A4 HLA A2: 775

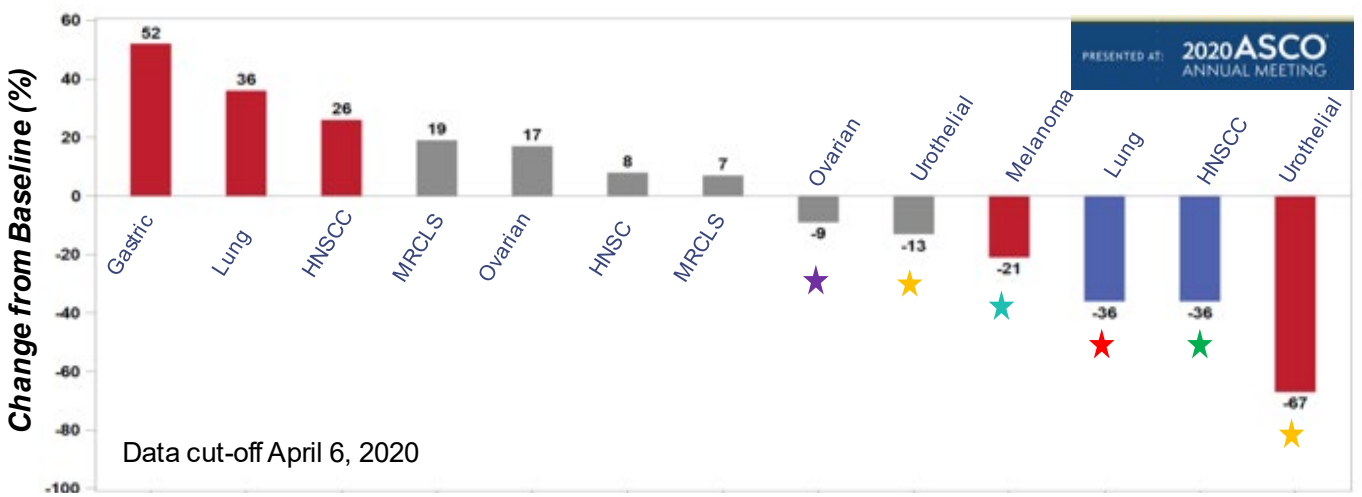
- Given the efficacy in Phase 1, ADP-A2M4 is likely to be an important treatment for this patient population with few treatment options
- BLA and launch in 2022****
- Building Adaptimmune's capabilities
  - Manufacturing
  - Regulatory
  - Commercial
  - Medical Affairs

*Mortality figures based on American Cancer Society 2020 (US) and Global Can (EU); *Synovial sarcoma and MRCLS figures reflect advanced/refractory treatable patients based on internal primary market research
**MAGE A4 expression based on ADAP samples and expression cut off criteria of ≥30% tumor cells at ≥2+ intensity
***HLA A2 expression of 41% based on ADAP samples (1,043 patient samples)
**** Planned for synovial sarcoma

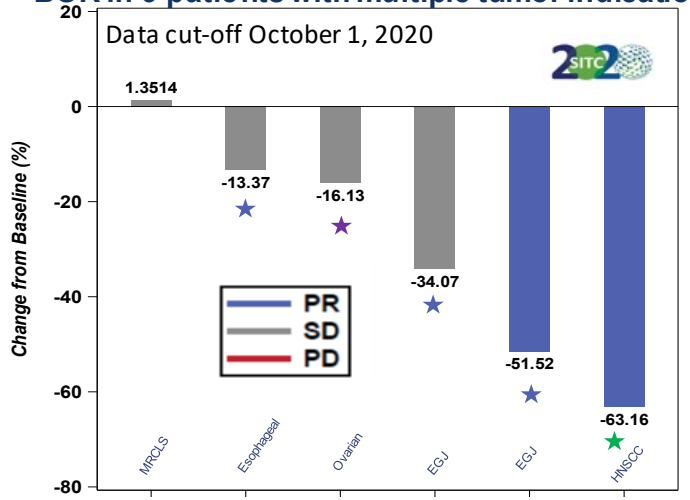
The power of SPEAR T-cells targeting MAGE-A4 in multiple tumor types

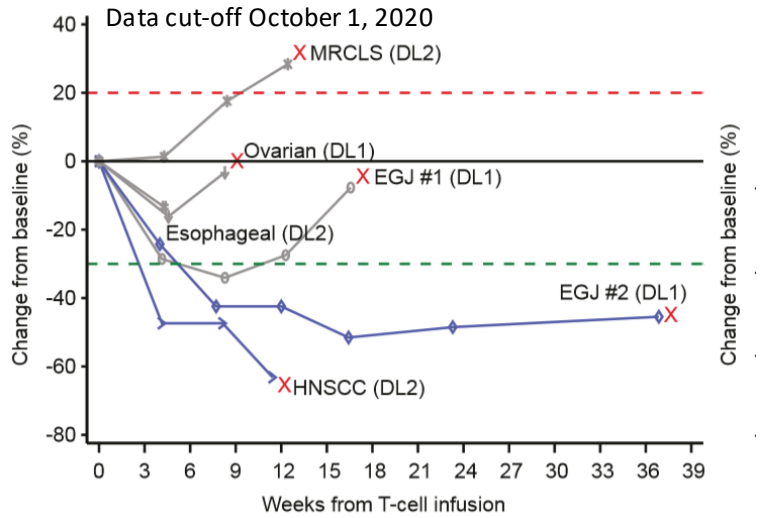
The basis for new Phase 2 trials and future BLAs

ADP-A2M4 Phase 1 trial BOR in 13 patients with multiple tumor indications*



ADP-A2M4CD8 SURPASS Trial
BOR in 6 patients with multiple tumor indications





Confirmed PRs:

- ★ ***Esophagogastric Junction (EGJ)***
- ★ ***Head & Neck***
- ★ ***Lung***

Other reductions in tumor size:

- ★ ***Esophageal***
- ★ ***Urothelial (Bladder)***
- ★ ***Ovarian***
- ★ ***Melanoma***

*Cohort 3 and Expansion; PR, partial response; SD, stable disease; PD, progressive disease
Data represent percent changes from Baseline in sum of diameters in target lesions through progression or prior to surgical resection;
Sum of diameters = sum of the long diameters for non-nodal lesions and short axis for nodal lesions; Reponses evaluated by RECIST v1.1

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ADP-A2M4CD8 – starting Phase 2 trial to address unmet need in gastroesophageal cancers (1H 2021)

Leveraging capabilities built with sarcoma experience

Indication	Mortality US and EU*	MAGE-A4 Expression **	Potential MAGE-A4 +ve Patients	Potential MAGE-A4 +ve Patients Factored for HLA***
Synovial sarcoma	1,804+	67 %	1,209	496
Myxoid/ round cell liposarcoma	2,000	34 %	680	279
Gastroesophageal (esophageal, esophagogastric junction (EGJ), and gastric)	101,080	17 %	17,184	7,045

Total MAGE-A4 HLA A2: 7,820

Unmet Need in Gastroesophageal Cancers

- High incidence and mortality
  - Overall survival less than 15 months with first line treatment
- Future of first line treatment likely to be combination of chemotherapy with checkpoint inhibitors (ESMO 2020)
- This new standard of care is still associated with poor prognosis

Plans for ADP-A2M4CD8

- First 3 patients with gastroesophageal cancers in ADP-A2M4CD8 Phase 1 had reductions in tumor size
- BLA planned for 2024

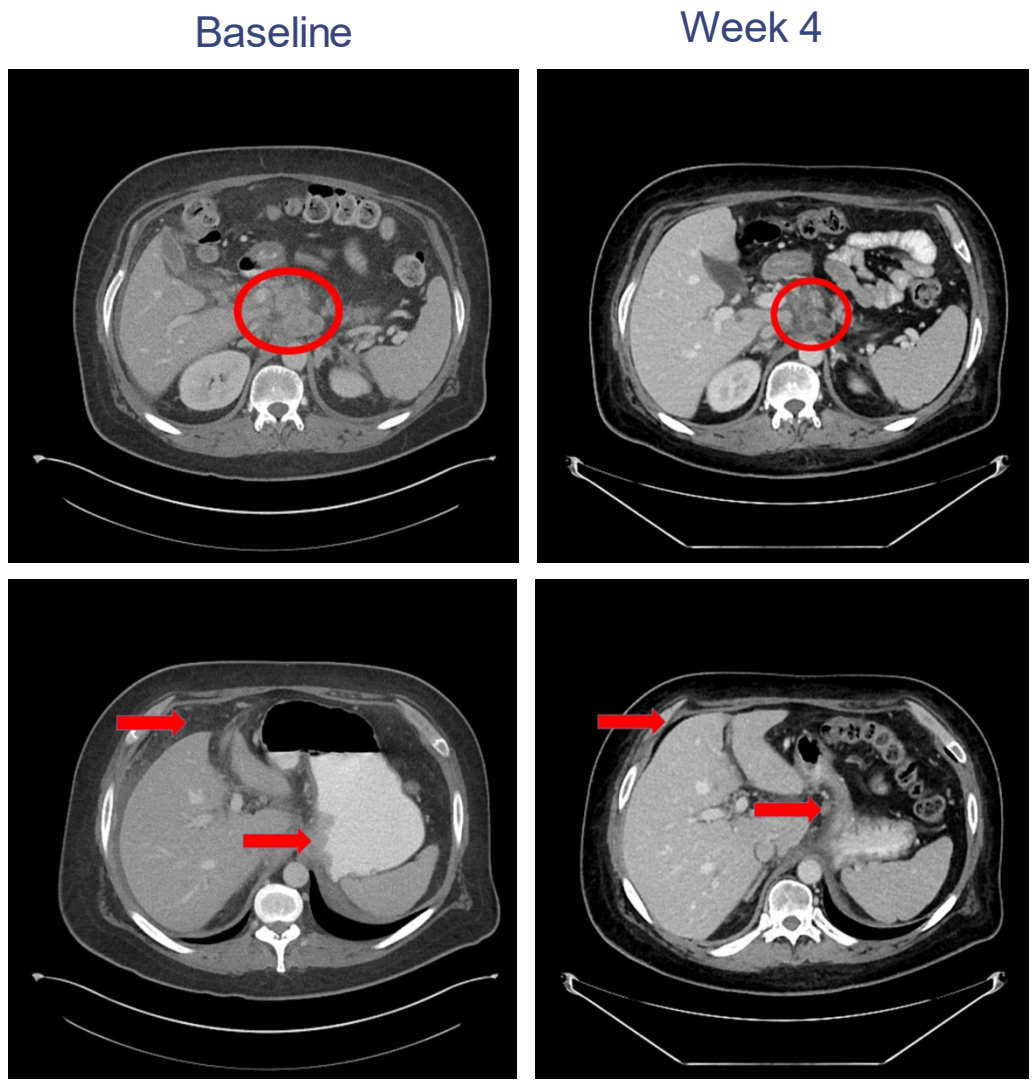
*Mortality figures based on American Cancer Society 2020 (US) and Global Can (EU); +Synovial sarcoma and MRCLS figures reflect advanced/refractory treatable patients based on internal primary market research

**MAGE A4 expression based on ADAP samples and expression cut off criteria of ≥30% tumor cells at ≥2+ intensity

***HLA A2 expression of 41% based on ADAP samples (1,043 patient samples)

Marked improvement in a patient with EGJ cancer treated with ADP-A2M4CD8

Single dose of 1.2 billion transduced cells with over 9 months until progression



31-yr-old male with Stage IV EGJ cancer, HER2^{neg}
Diagnosed July 2018

PRIOR THERAPY

Chemotherapy (2018-2019)	– FLOT – Atezo with BL-8040 – FOLFIRI – Ramucirumab and paclitaxel (bridging)
Radiation	– 30 Gy to abdomen/retroperitoneal lymph node

ADP-A2M4CD8

High MAGE-A4 expression (100% 3+)

1.2 billion SPEAR T-cells: 30-Oct-2019

Typical adverse events

RESPONSE

Partial Response with 51.52% reduction in target lesions

Marked symptomatic improvement - reduced narcotic requirement for pain, resolution of ascites, general well-being

Disease progression ~8.5 months after receiving SPEAR T-cells

Data cut-off October 1, 2020, scan data updated at noted weeks; EGJ: esophagogastric junction cancer

Investigating further indications with ADP-A2M4CD8 based on activity seen in SURPASS

Indication	Mortality US and EU*	MAGE-A4 Expression **	Potential MAGE-A4 +ve Patients	Potential MAGE-A4 +ve Patients Factored for HLA***
Synovial sarcoma	1,804+	67 %	1,209	496
Myxoid/ round cell liposarcoma	2,000	34 %	680	279
Gastroesophageal (esophageal, EGJ, and gastric)	101,080	17 %	17,184	7,045
Head and neck	44,500	18 %	8,010	3,284
Urothelial	53,180	33 %	17,549	7,195
Lung-Squamous	101,661	38 %	38,631	15,839
				Total MAGE-A4 HLA A2: 34,138

- Important response/anti-tumor activity in Phase 1 trials with SPEAR T-cells targeting MAGE-A4
- Phase 1 SURPASS trial focused on gastroesophageal, head and neck, urothelial, and lung cancers
- Early promise of additional tumor types that can be treated with MAGE-A4 directed TCRs

*Mortality figures based on American Cancer Society 2020 (US) and Global Can (EU); +Synovial sarcoma and MRCLS figures reflect advanced/refractory treatable patients based on internal primary market research
**MAGE A4 expression based on ADAP samples and expression cut off criteria of ≥30% tumor cells at ≥2+ intensity
***HLA A2 expression of 41% based on ADAP samples (1,043 patient samples)

Large market opportunity potential with SPEAR T-cells targeting MAGE-A4

When considering all indications in our trials there is a large potential patient population eligible for treatment

Indication	Mortality US and EU*	MAGE-A4 Expression **	Potential MAGE-A4 +ve Patients	Potential MAGE-A4 +ve Patients Factored for HLA***
Synovial sarcoma	1,804+	67 %	1,209	496
Myxoid/ round cell liposarcoma	2,000	34 %	680	279
Gastroesophageal (esophageal, EGJ, and gastric)	101,080	17 %	17,184	7,045
Head and neck	44,500	18 %	8,010	3,284
Urothelial	53,180	33 %	17,549	7,195
NSCLC-Squamous	101,661	38 %	38,631	15,839
Melanoma	19,750	16 %	3,160	1,296
Ovarian	38,840	22 %	8,545	3,503
			Total MAGE-A4: 94,968	**Total MAGE-A4 HLA A2: 38,937**

*Mortality figures based on American Cancer Society 2020 (US) and Global Can (EU); +Synovial sarcoma and MRCLS figures reflect advanced/refractory treatable patients based on internal primary market research

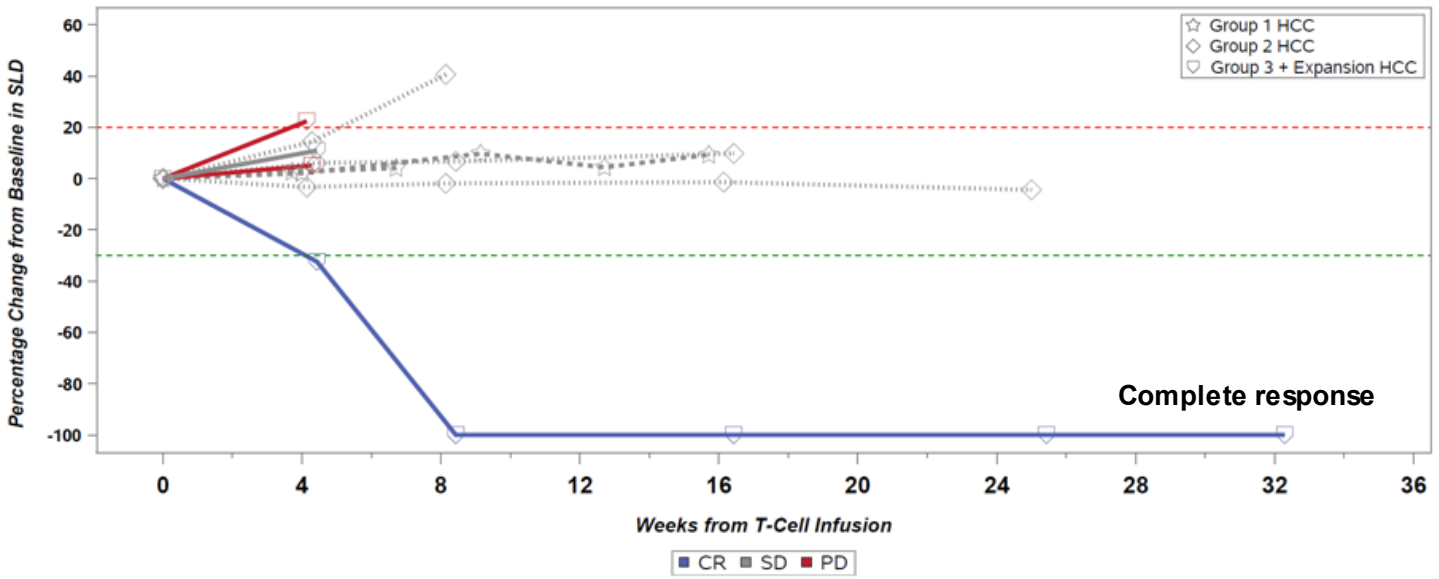
**MAGE A4 expression based on ADAP samples and expression cut off criteria of ≥30% tumor cells at ≥2+ intensity

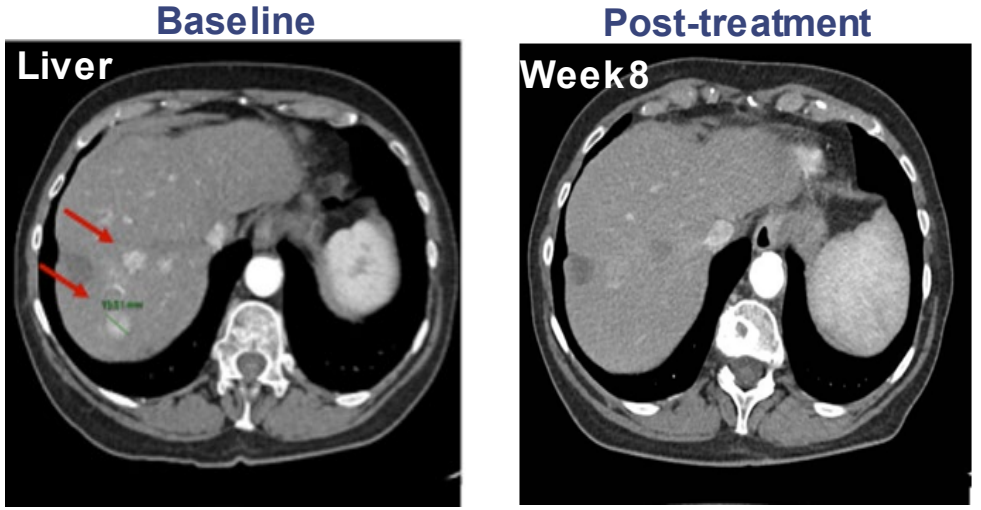
***HLA A2 expression of 41% based on ADAP samples (1,043 patient samples)

Clinical and market potential for SPEAR T-cells targeting AFP

Complete response in the Phase 1 trial demonstrates potential of ADP-A2AFP

Trial ongoing in expansion phase





Best overall response	Group 1 (n=2)	Group 2 (n=3)	Group 3 and expansion (n=4)
Complete response	0	0	1 (25%)
Stable disease	2 (100%)	3 (100%)	1 (25%)
Progressive disease	0	0	2 (50%)

EASL THE DIGITAL INTERNATIONAL LIVER CONGRESS™ 27–29 August 2020

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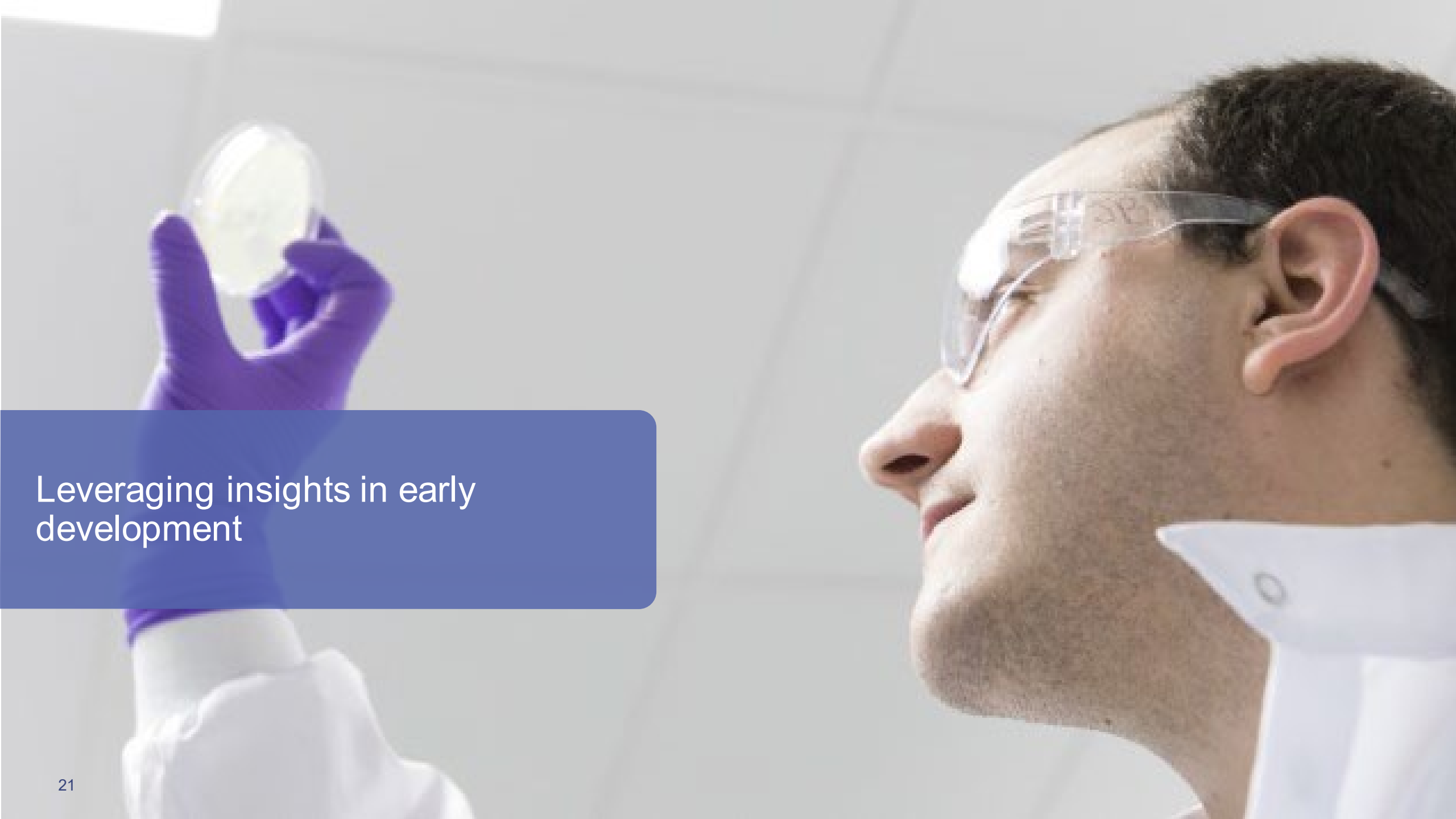
Market opportunity for SPEAR T-cells targeting AFP

High unmet need for people with liver cancer

Indication	Mortality US and EU*	Serum AFP Expression **	Potential AFP+ve Patients	Potential AFP+ve Patients Factored for HLA***
Hepatocellular carcinoma (HCC)	75,860	51 %	38,689	15,862
			Total AFP: 38,689	**Total AFP HLA A2: 15,862**

**Mortality figures based on American Cancer Society (US) and Global Can (EU)
**Serum AFP expression ranges based on internal samples (62 patients) and expression cut off >100ng/mL
***HLA A2 expression of 41% based on ADAP samples (1,043 patient samples)

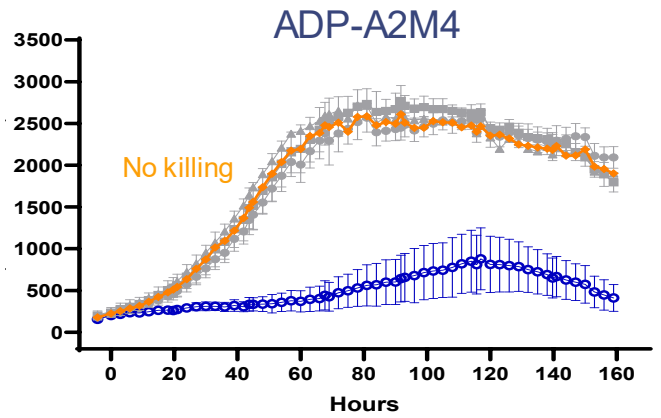


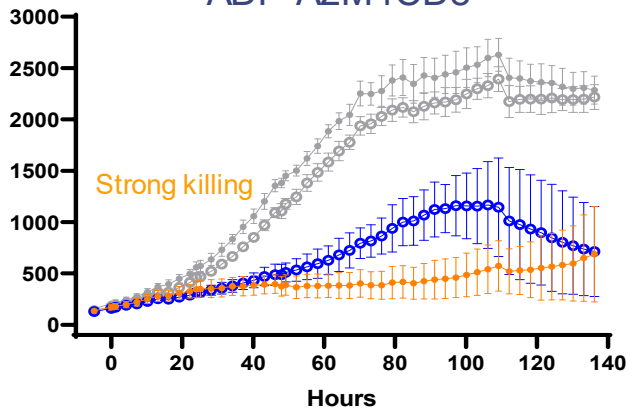
Leveraging insights in early development

Two years from IND to planned registration-directed trial

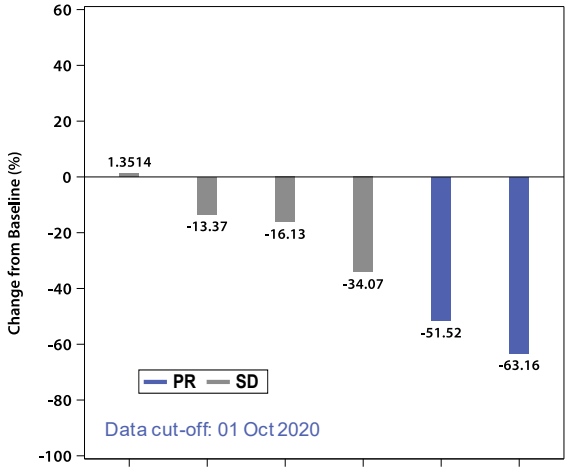
SURPASS-2 trial planned for patients with esophageal cancers (inc. EGJ) 1H 2021

Improved target killing by next-gen CD4 T-cells





Fit-for-purpose trial design



- Two patients with PRs
- Cohort 1, first patient treated had a RECIST response
- Tumor reduction in 5 of 6 patients

Focus on proof-of-concept decisions

- Phase 2 trial planned in patients with esophageal cancers* 1H 2021
- Focusing on 4 indications for expansion in SURPASS trial (gastroesophageal, lung, urothelial, head and neck cancers)

*including EGJ (esophagogastric cancers); PR: partial response

Transduced CD4+/CD8+ SPEAR T-cells
Transduced CD8+ SPEAR T-cells
Untransduced CD4 or CD8 cells

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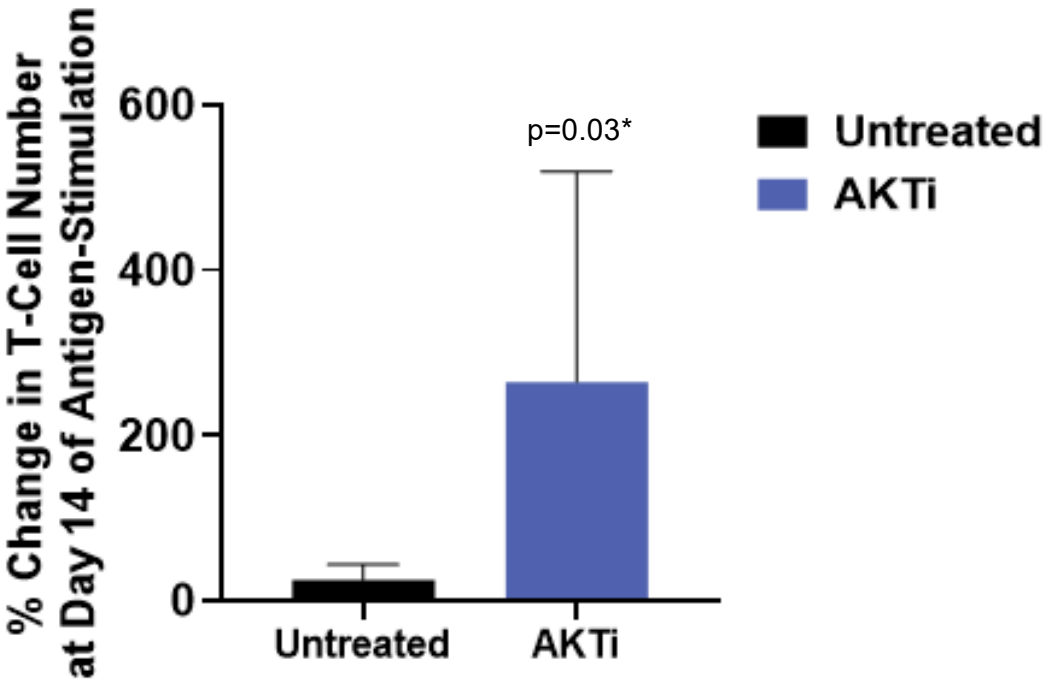
AKT inhibitor added during manufacturing improves T-cell product

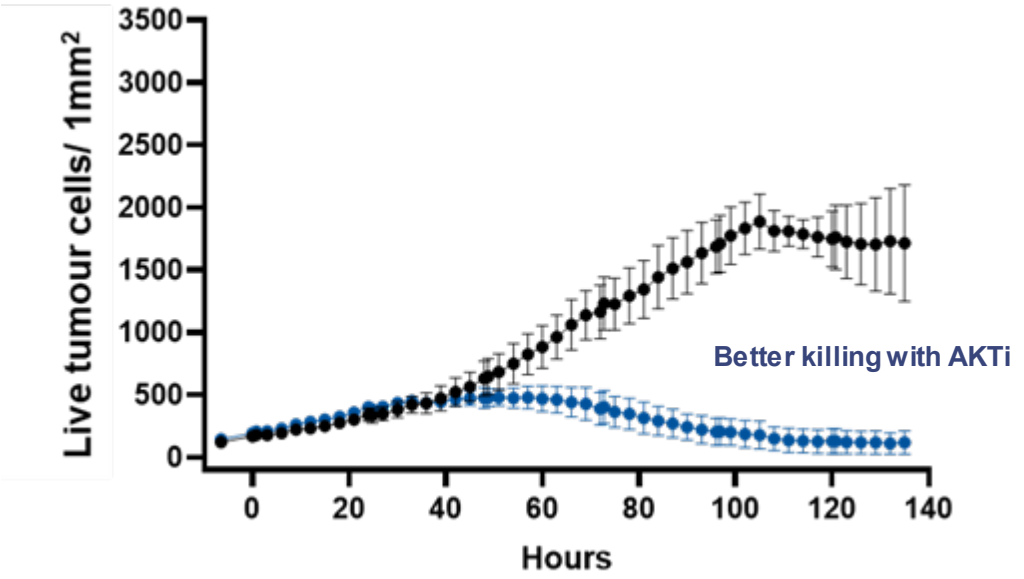
Increased proliferation and killing

Enhanced proliferation to antigen in vitro



*Wilcoxon matched-pairs signed rank test

AKTi increases potency



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Strong pipeline to deliver five products into the clinic by 2025

Strong pipeline to deliver five products to enter the clinic by 2025

Aiming for curative and mainstream therapies

- Insights from translational sciences
- Next-generation products
- Next-generation Tumor Infiltrating Lymphocytes (TILs)
- TCRs to alternative pHLA
- HLA-independent TCR (HiT) platform

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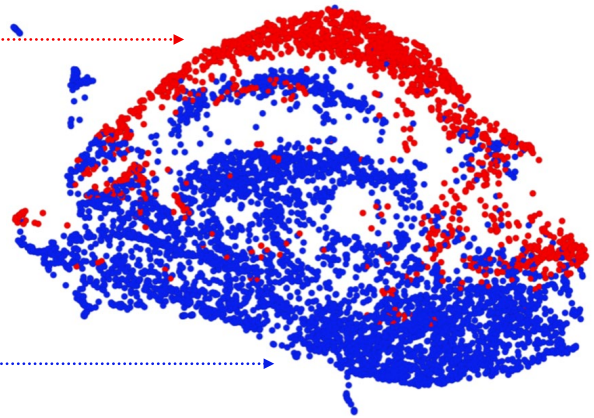
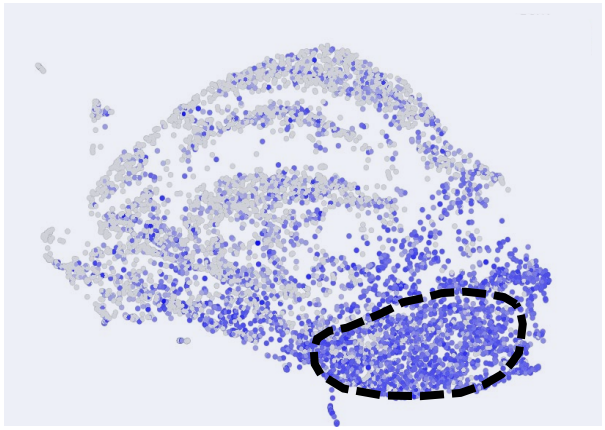
Markers of patient response drive development of improved products

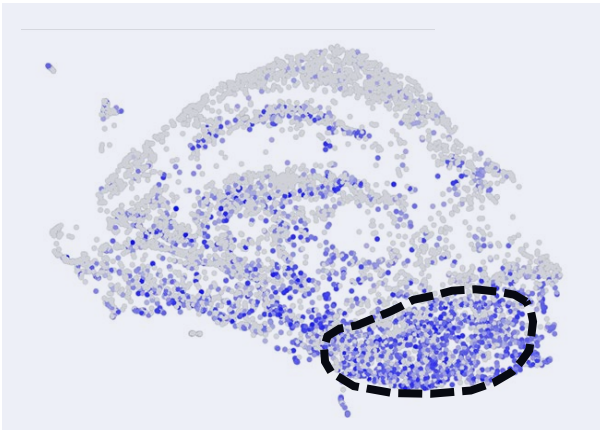
Single cell analysis of biomarker expression in SPEAR T-cell products



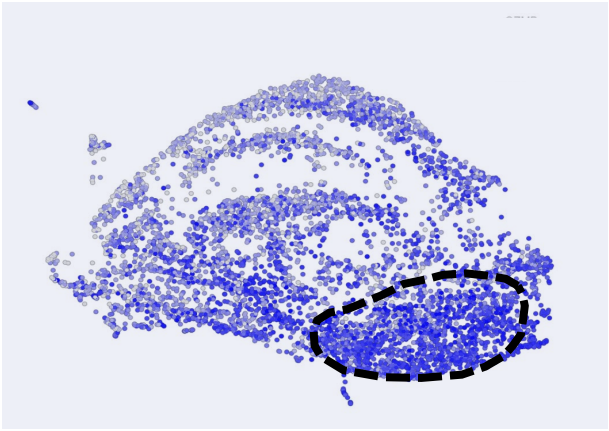
Proliferation



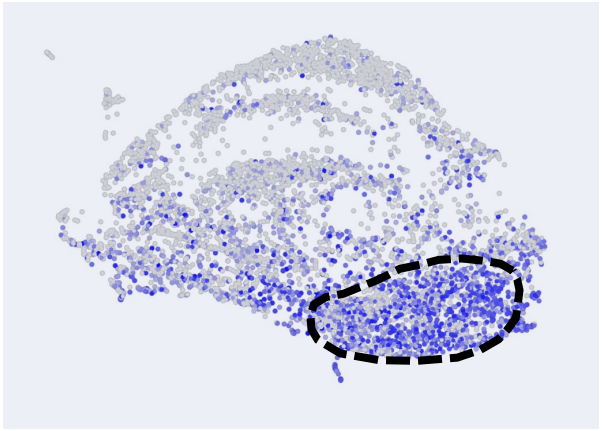
Activation



Cytotoxicity



Memory



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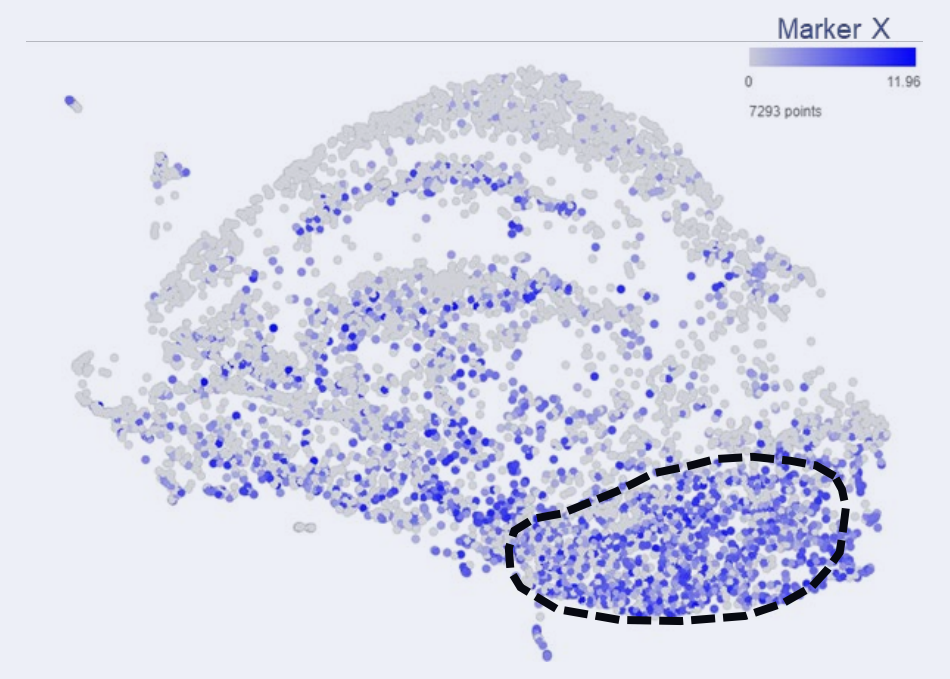
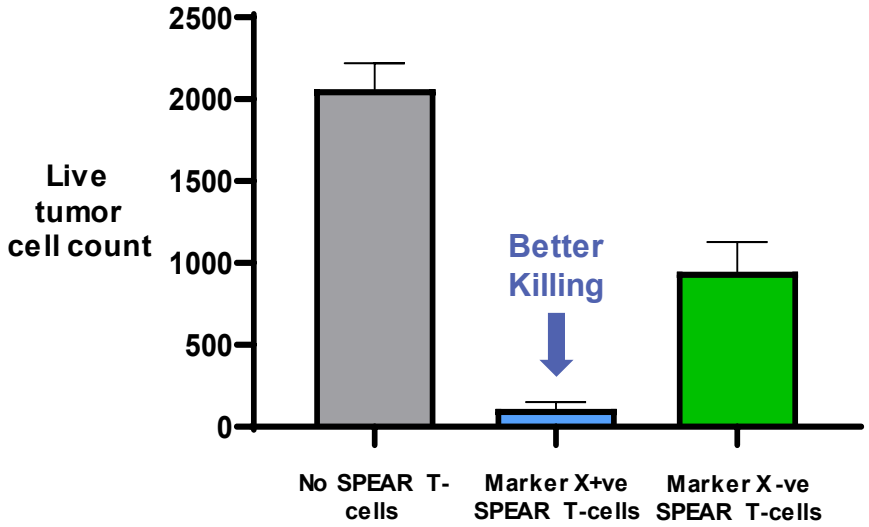
Expression of activation Marker X in SPEAR T-cells correlates with good tumor cell killing

Activation Marker X





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Enhancing SPEAR T-cells to improve patient response, survival and quality of life

Next-generation products

Promote immunological memory

Improve T-cell function, proliferation and survival

Overcome tumor resistance mechanisms

Next-Generation Products

Improve T-cell homing and tumor penetration

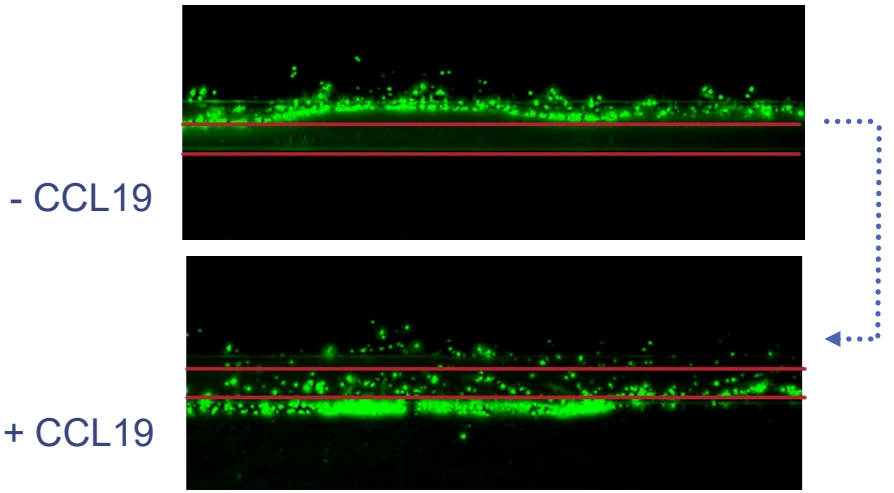
Evoke a wider immune response

Toolbox of next-gen constructs developed

- CD8alpha (SURPASS trial)
- IL7
- PDE-7
- dnTGFbeta
- IL15
- IL7 + CCL19
- Undisclosed

Noile-Immune Biotech

ALPINEImmuneSciences

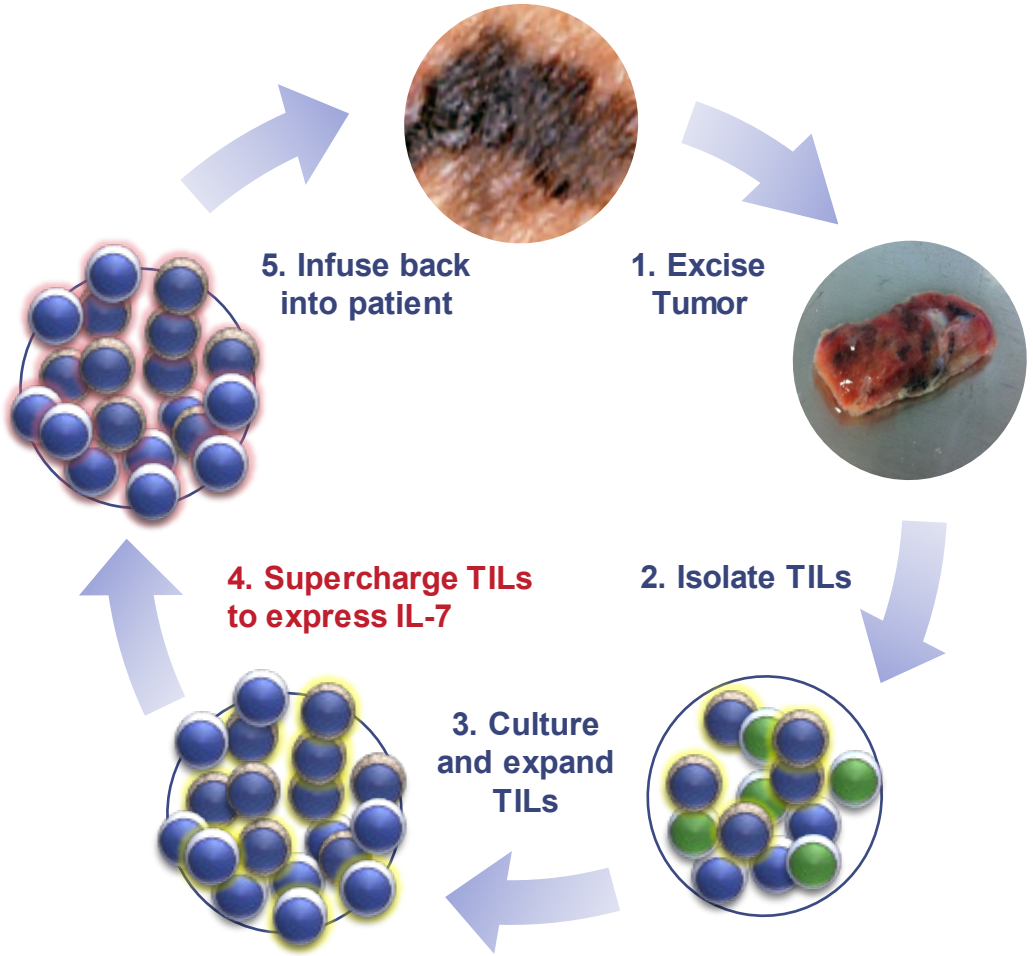


Migration of SPEAR T-cells induced by CCL19

Adaptimmune TRANSFORMING T CELL THERAPY

Working with CCIT to develop next-generation 'supercharged' TILs co-expressing IL-7

The future of melanoma treatment?



Partnership with leading TIL therapy center (CCIT, Denmark) led by Inge-Marie Svane

- Tumor Infiltrating Lymphocytes (TILs) therapy is efficacious in solid tumors, including melanoma
- Aim to transform patient responses with a next-generation TIL product
  - TIL-IL7 product progressing to the clinic
- Builds on our strengths in TCR discovery, next generation product development and manufacturing
- Broad market potential

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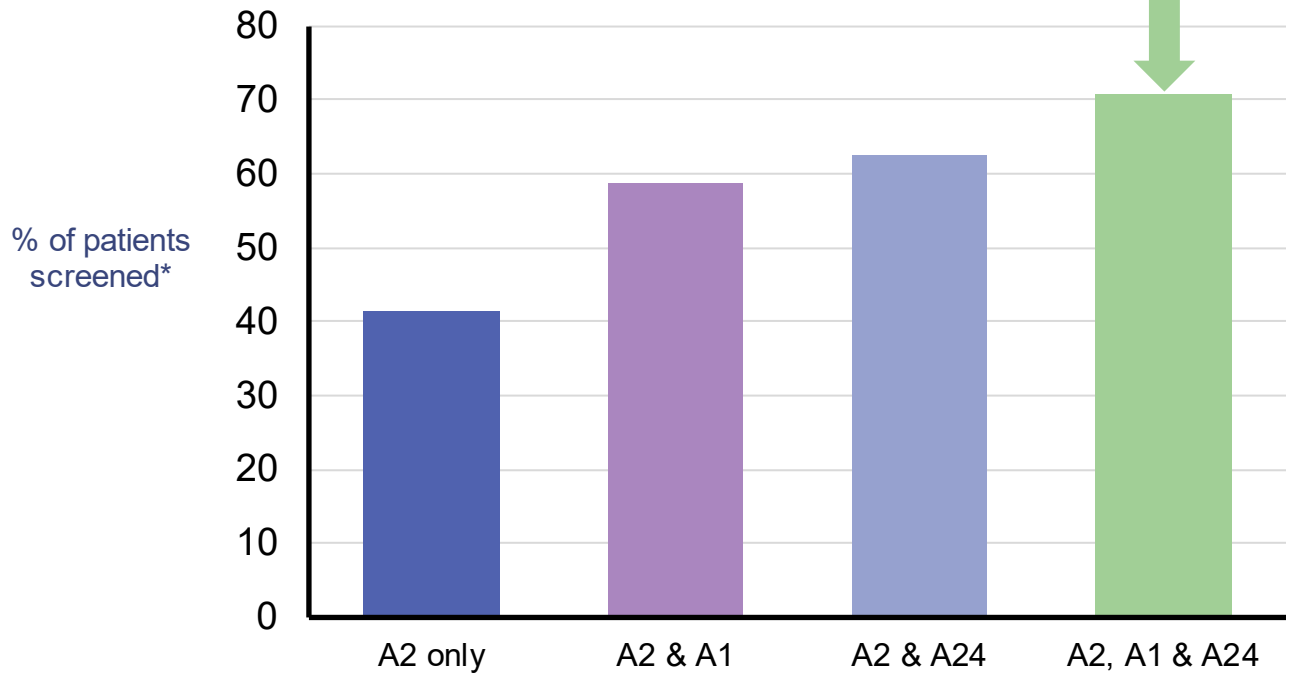
Increase treatable patient population with products targeting additional HLA types

Towards mainstream therapy

Single HLA allele frequency in patients

MAGE-A4	• **HLA-A*02**	**41%**
	• HLA-A*01	**25%**
	• HLA-A*24	**26%**
AFP	• **HLA-A*02**	**41%**
	• HLA-A*24	**26%**

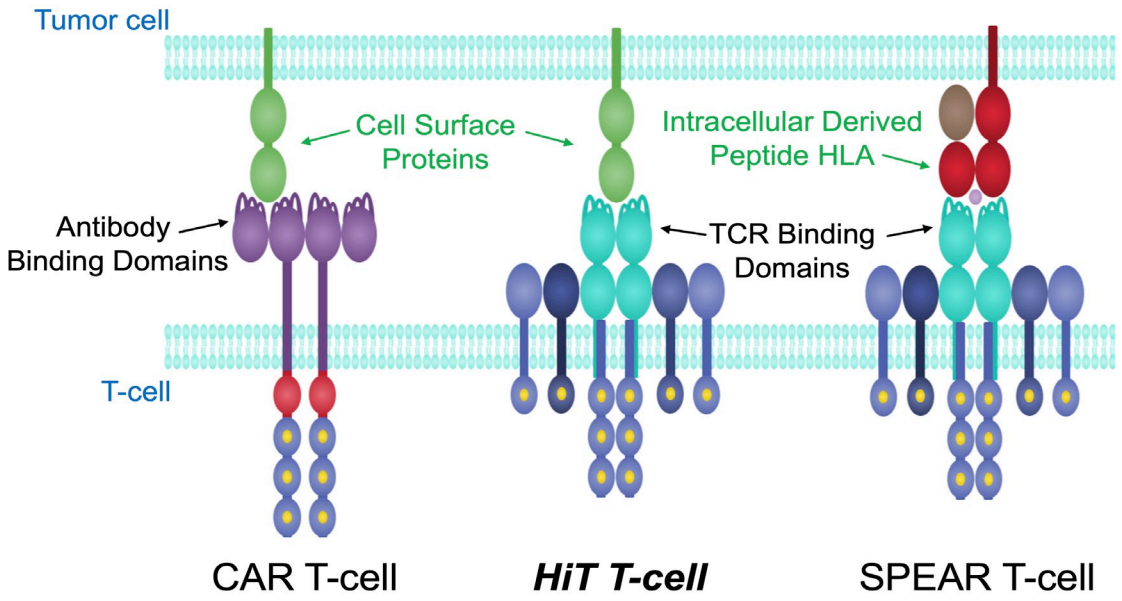
> 70% patients treatable with products targeting HLA-A*02, *01 and *24



HLA data taken from first 1,043 patients screened in our trials

Expanding our TCR expertise into HLA-independent TCRs (HiTs)

Leveraging internal innovation to establish a new therapeutic platform



HiTs are natural TCRs that bind to cell surface targets independently of HLA presentation

- Builds on our strengths in TCR discovery
- HLA-independent: Potential to treat all antigen positive patients
- Potential advantages over CARs
- Aim to be first to market with a HiT
- Development of first HiT in allogeneic platform with Astellas

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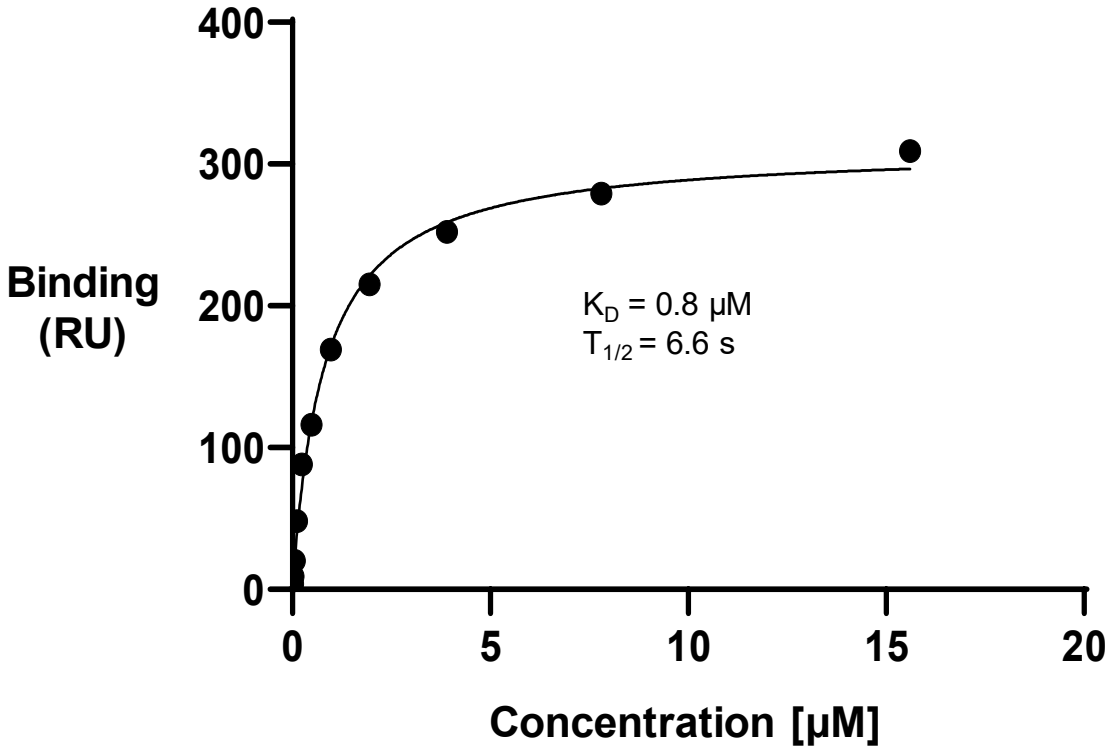
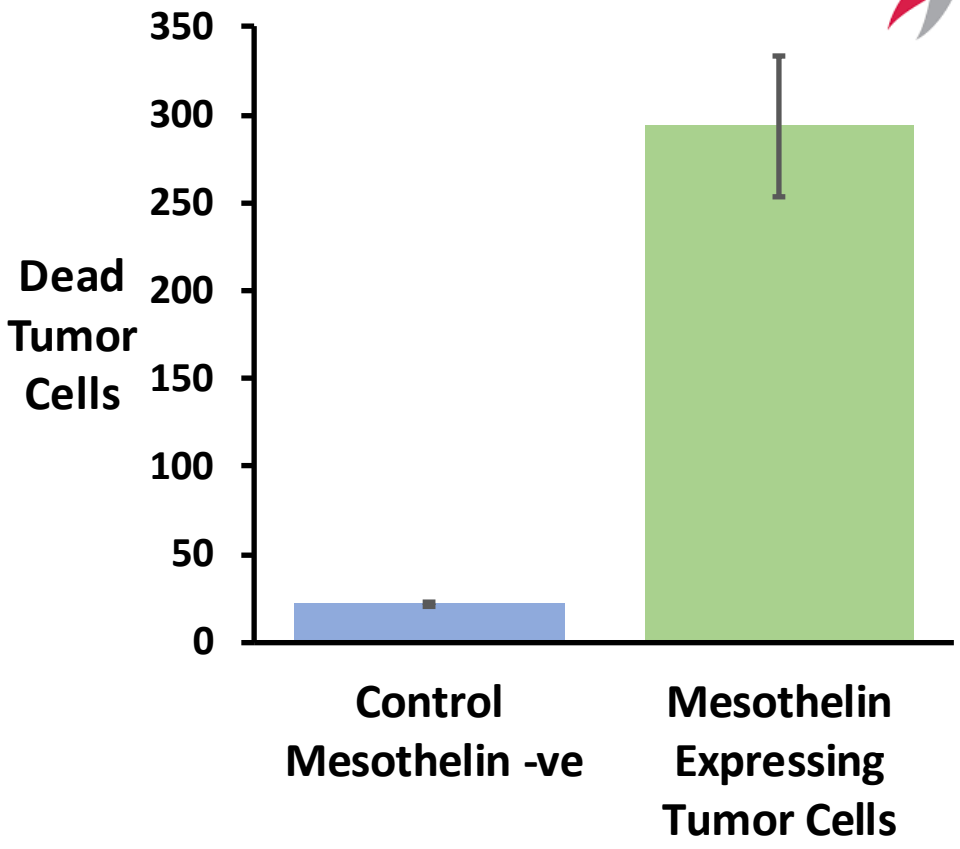
HLA-independent TCRs (HiTs) bind directly to the target, mesothelin

Mesothelin-targeted HiTs kill mesothelin-expressing tumor cells *in vitro*



HiT binds recombinant mesothelin directly - Independent of pHLA



T-cells transduced with mesothelin HiT kill mesothelin-positive tumor cells

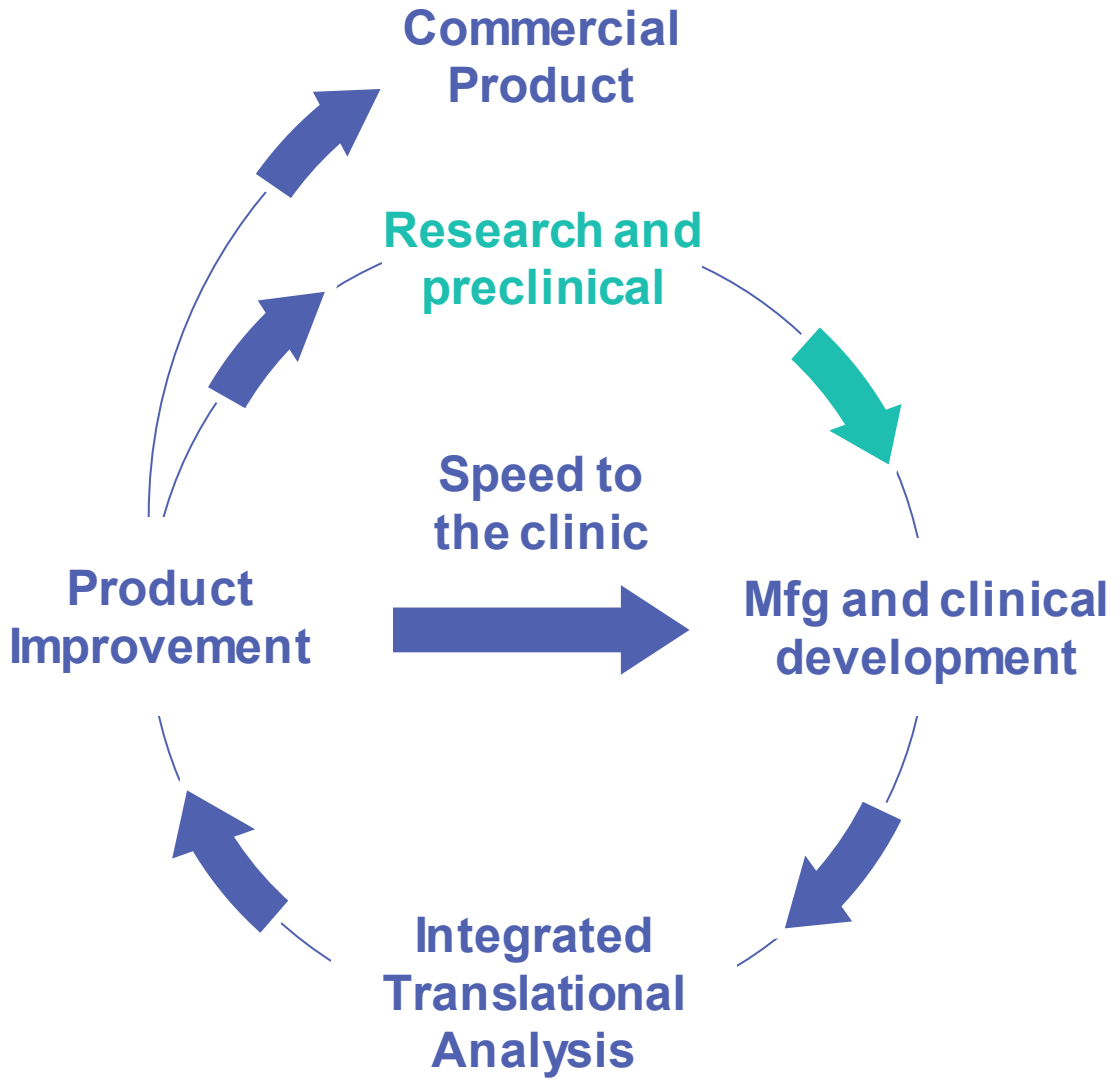
Our allogeneic platform: towards mainstream cell therapy

A future of cell therapies

Our allogeneic platform will deliver the first stem cell derived TCR T-cell product to patients

Allogeneic MAGE-A4 targeted iT-cells

- MAGE A4 TCR clinically validated
- Potent killing *(in vitro)*
- GMP ready process
- Homogenous product



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Gene edited stem cells provide a flexible platform while minimizing batch to batch variation

Potential to build a broad family of future products across multiple cell types

Stem cells

- Single donor - cord blood
- High proliferative potential
- **Reproducible** starting material

Gene Editing

- Overcomes lentivector capacity limit
- **Flexibility** to add multiple next gens

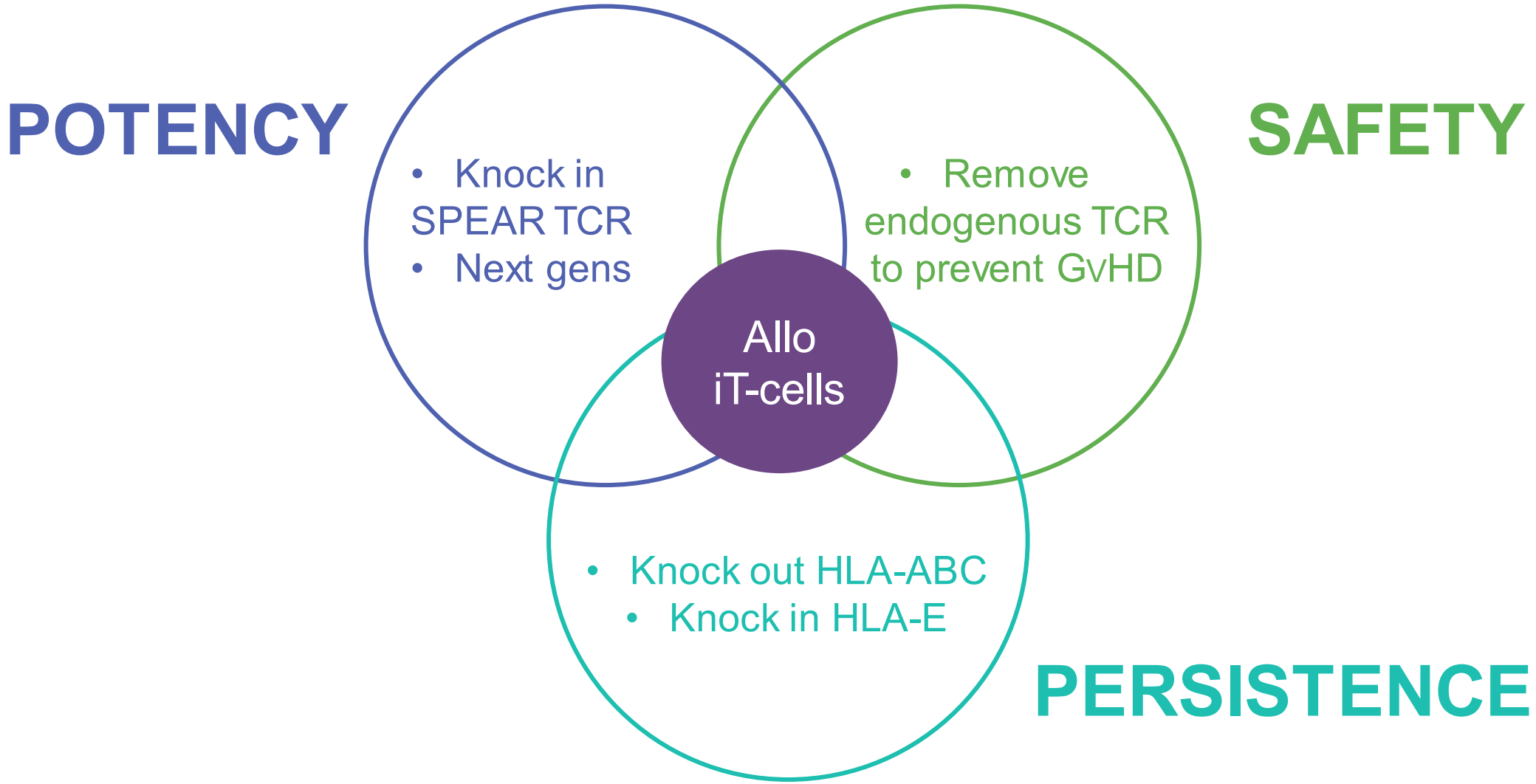
GMP

- Single cell line for characterization
- Defined media composition
- **No serum or feeder lines**

Greater Control

Editing and generating clonal banks generates consistent reproducible product

All cells in final product contain the same edits



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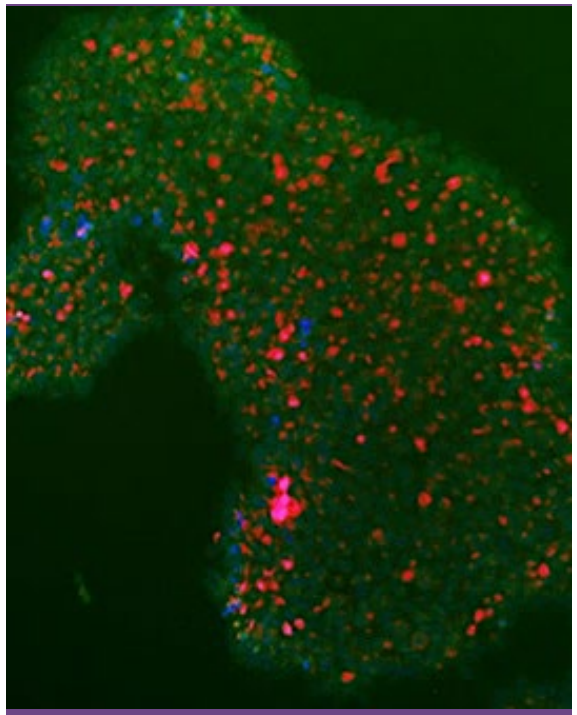
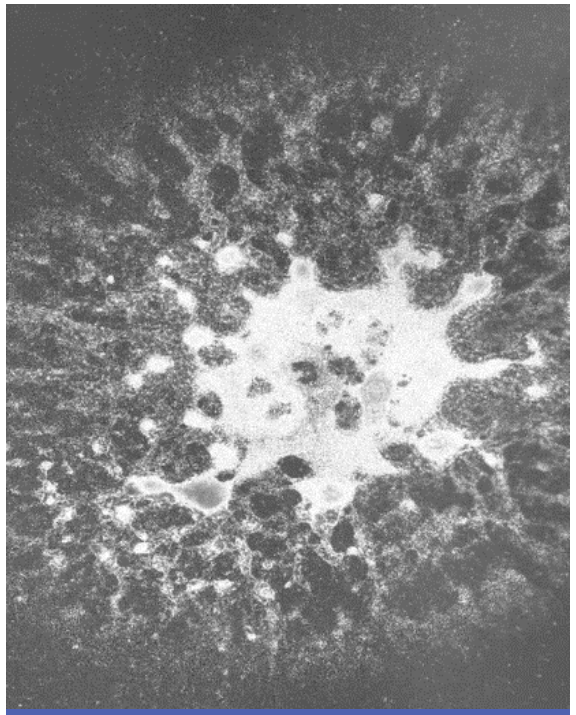
Differentiation process mimics early T-cell development in a dish

Hematopoietic organoids generate T-cell progenitors that mature to form iT-cells



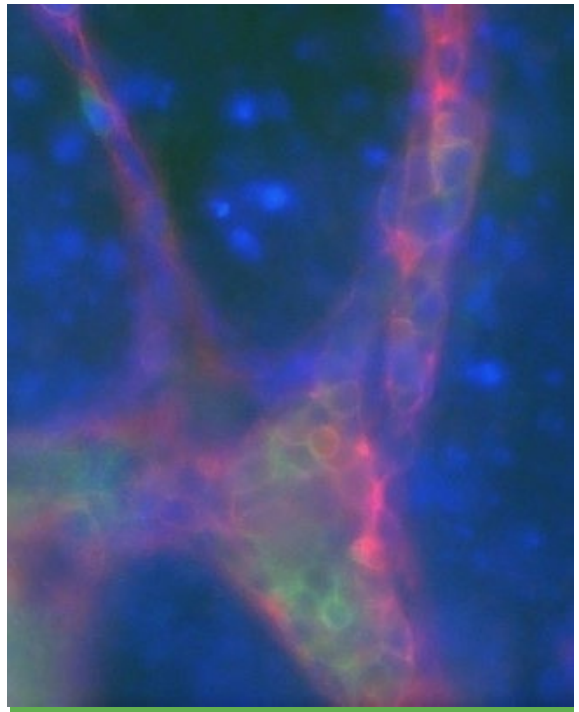
Stem cells (starting material)

Hoescht blue, OCT4 green, TRA160 red



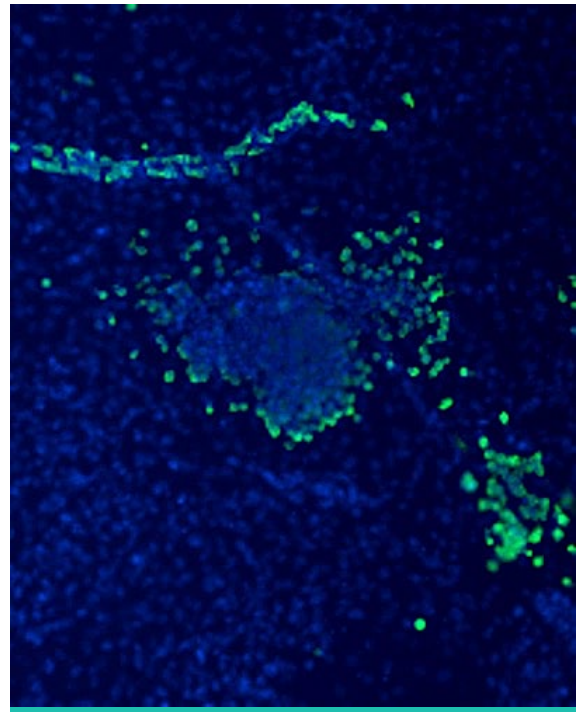
Complex 3D structures self assemble

Brightfield



Hemogenic endothelium forms

Hoescht blue, CD45 green, CD34 red



T-cells form

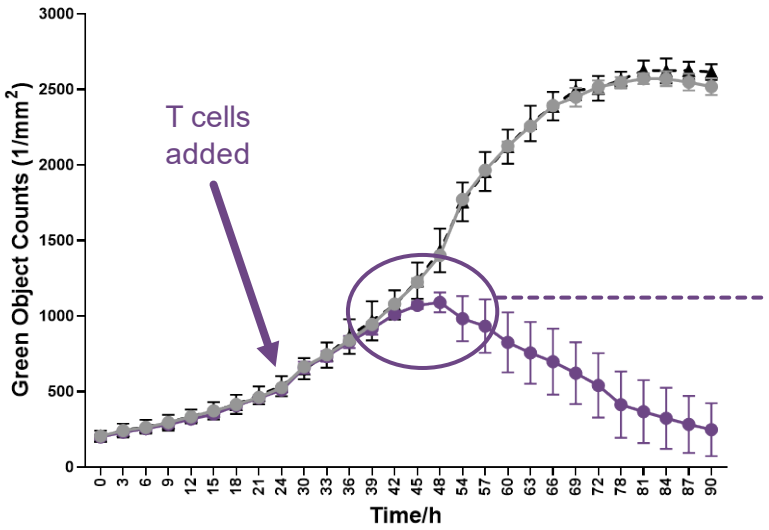
Hoescht blue, CD3 green

Our allogeneic iT-cells kill MAGE-A4 expressing target cells

Stem cell derived allogeneic iT-cells kill faster than gen 1 autologous SPEAR T-cells

Autologous T-cells

transduced with ADP-A2M4 lentivirus

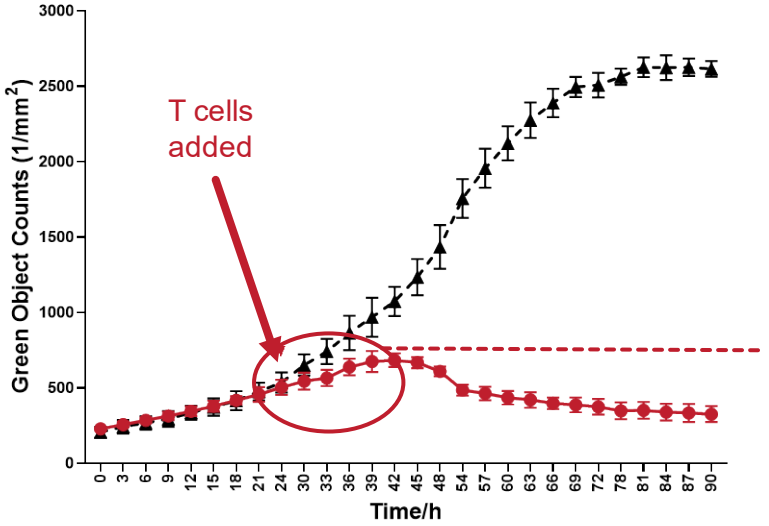


Non-transduced autologous T-cells have no effect on tumor line growth

Autologous ADP-A2M4 SPEAR T-cells kill targets 18-24hr after addition

Allogeneic iT-cells

edited to express the same SPEAR TCR targeting MAGE A4



Tumor line growth curve (no T-cells added)

Allogeneic iT-cells start killing targets 6-9hr after addition

Milestones, company overview, and financials

Leading capabilities for designing and delivering cell therapies

Integrated, internal capabilities are the foundation for long-term value creation

~450 FTEs

Philadelphia

- Autologous product manufacturing
- Clinical Development
- Commercial
- Corporate

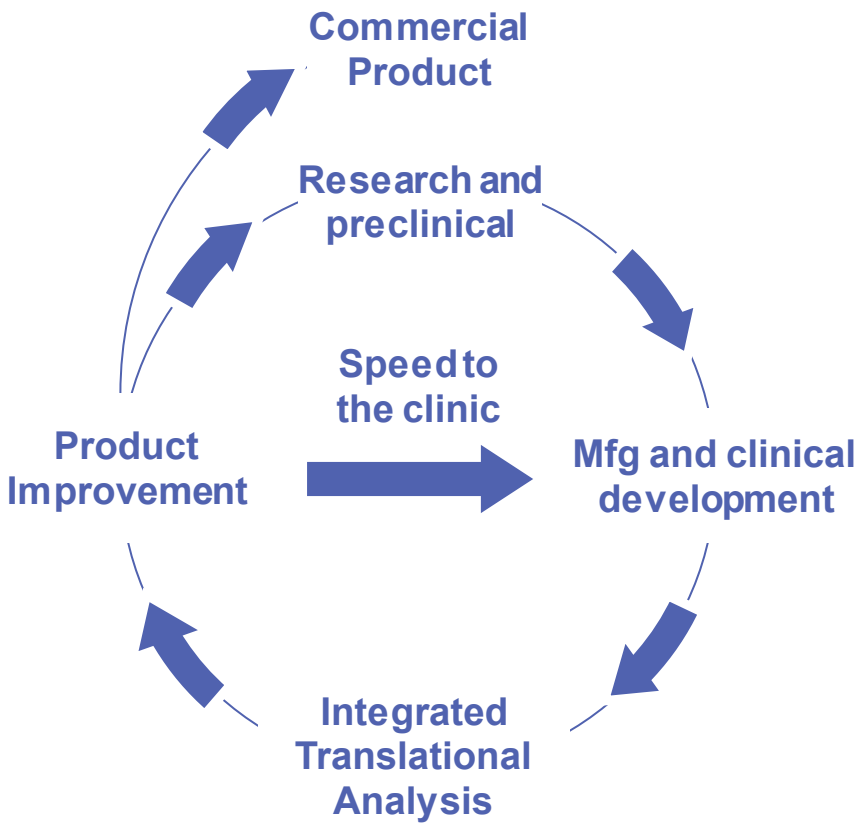
Milton Park

- Pipeline Research
- Allogeneic research
- Process and analytical development
- Corporate

Stevenage

- GMP lentiviral vector manufacturing

Speed of innovation



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Cash runway into early 2023

Current total liquidity at end of Q3 2020 is **$400M***

Well financed and ready to execute on broad range of opportunities/value drivers

* As of September 30, 2020 - Total Liquidity (a non-GAAP financial measure) is the total of cash and cash equivalents and marketable securities, which is explained and reconciled to the most directly comparable financial measures prepared in accordance with GAAP in our Q3 10-Q filing filed with the SEC on November 5, 2020.


SPEAR-heading
THE CANCER
REVOLUTION
Adaptimmune
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Corporate Deck
January 2021