

SPEAR-heading

THE CANCER REVOLUTION



**Corporate Deck
April 2022**

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 filed for the year ended December 31, 2021, our Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other filings with the Securities and Exchange Commission. 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 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.

Our vision and mission – Arming cell therapies to target solid tumors

Arming Cells. Against Cancer. For Good.

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



BLA filing for afami-cel

Building a MAGE-A4 franchise

Scaling up manufacturing capabilities

Allogeneic progress



Core value drivers: our “2-2-5-2” strategic plan by 2025



Two
marketed
SPEAR T-cell
products targeting
MAGE-A4

- Synovial sarcoma and MRCLS
- Esophageal and EGJ cancers



Two
additional BLAs for
SPEAR T-cell
products targeting
MAGE-A4

- Ovarian cancer
- Additional indications for MAGE-A4 targeted products



Five
autologous
products in
the clinic

- HiTs
- Next-gen SPEAR T-cells
- New targets
- Broader HLAs
- Next-gen TILs



Two
allogeneic
products in
the clinic

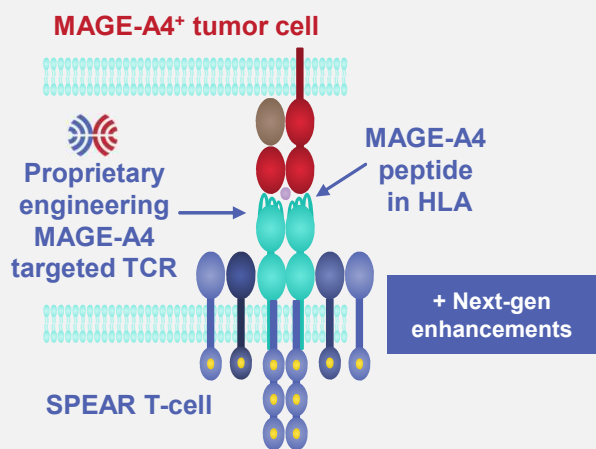
- SPEAR T-cell product targeting MAGE-A4
- HiT mesothelin – partnered with Astellas
- Strategic collaboration with Genentech

Integrated Cell Therapy Capabilities

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

Our MAGE-A4 franchise is the cornerstone of our success

Right target, right TCR, first BLA in 2022, deep autologous pipeline, future allogeneic products



MAGE-A4 is a validated target

- Member of cancer testis antigen family
- Expressed in many solid tumors
- “Clean” target
- Intracellular protein
- **Only addressable with a T-cell receptor**

MAGE-A4 patient population

- Expression levels ranging ~15% to ~70%¹ across broad range of tumors
- **Confirmed responses in**
 - Head and neck
 - Gastroesophageal
 - NSCLC-squamous
 - Synovial sarcoma
 - Melanoma
 - Bladder
 - Ovarian
 - MRCLS
- Potential MAGE-A4 population ~95,000²

Afami-cel

Near term value

- First-gen product
- Synovial sarcoma and MRCLS
- **BLA filing this year**
- RMAT and PRIME designations
- **Pivotal trial (SPEARHEAD-1) met endpoint**
- 34% (16/47) response rate (CTOS 2021)

ADP-A2M4CD8

Medium term value

- Next-gen product includes CD8 and TCR
- SURPASS (Phase 1) trial focused on NSCLC, H&N, bladder, ovarian and GE
- **SURPASS trial: 36% (8/22) response rate**
- Responses in multiple tumors (ESMO 2021)
- **EGJ & esophageal: SURPASS-2 ongoing**
- **Ovarian: will initiate SURPASS-3 this year**
- Combination with PD-1 inhibitor this year

MAGE-A4

Long term value

- **IND for new next-gen therapy (ADP-A2M4N7X19) 2022**
- **First allogeneic product IND 2023**
 - IPSC derived – Uses same TCR
- Increase HLA coverage (HLA A1 and A24) – INDs 2023+

Adaptimmune is uniquely placed to deliver cell therapies for solid tumors

Cell therapy landscape - Overview of select approaches and players

Autologous

Shared Antigen TCR T-cell therapy

HiT / TRuC T-cell

TCR T-cell therapy

Engineered $\gamma\delta$ T-cell

Allogeneic

NK cell / CAR NK

CAR NKT

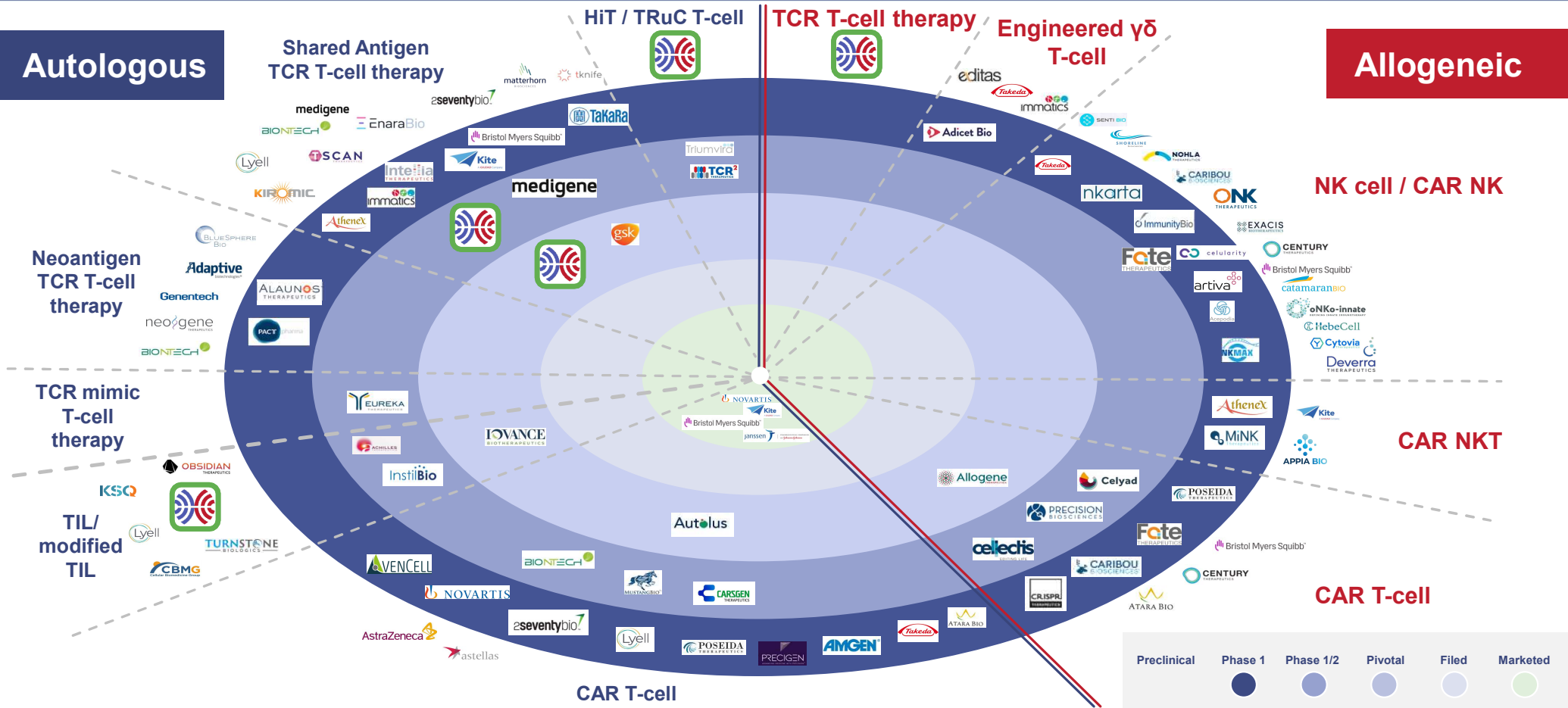
CAR T-cell

CAR T-cell

Neoantigen TCR T-cell therapy

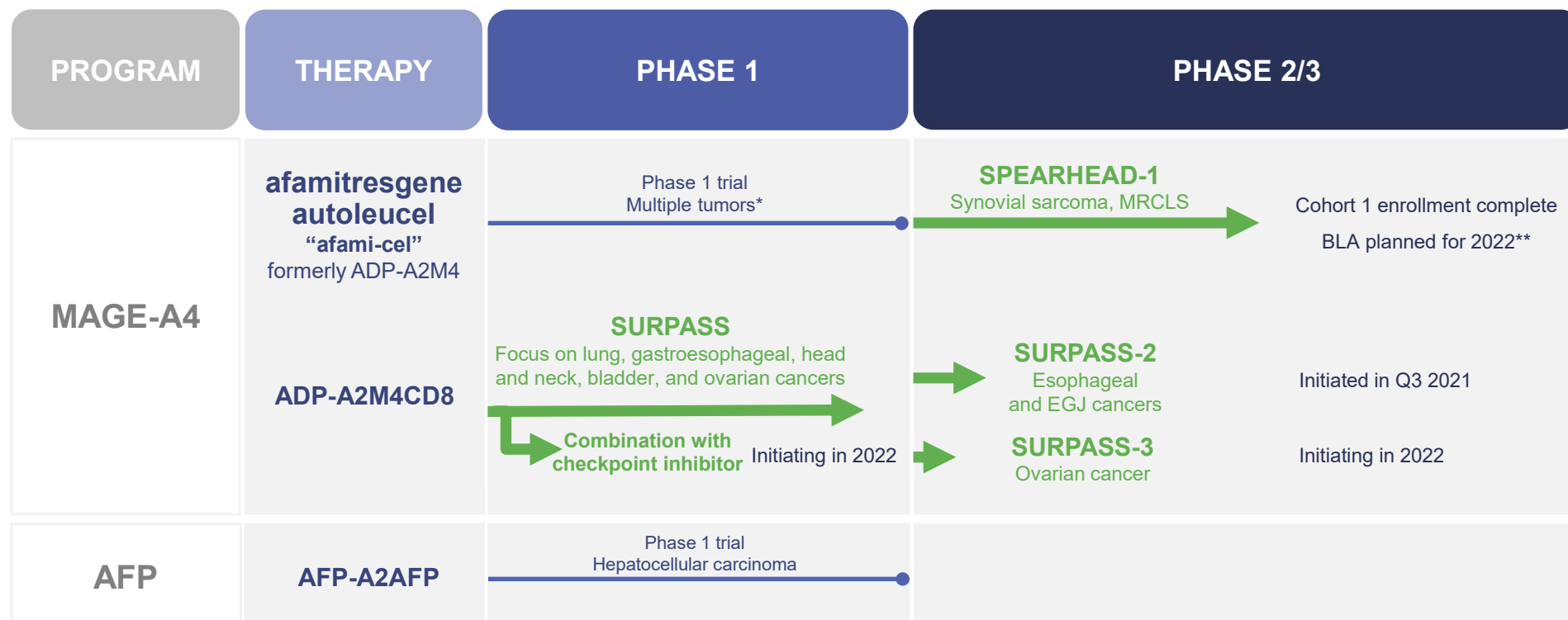
TCR mimic T-cell therapy


TIL/modified TIL



A strong autologous clinical pipeline in multiple clinical trials

Goal to launch first TCR T-cell therapy in 2022



Ongoing/initiating 
Completed/ceased enrollment 


Our autologous pre-clinical pipeline to deliver five products to the clinic by 2025

Aiming for curative and mainstream therapies

Platform	Product	Discovery	Preclinical
Autologous SPEAR T-cells	MAGE-A4 next-gen approaches (IL-7, IL-15, dnTGFbeta, PDE7)	<div></div>	
	IL-7/CCL19  Noile-Immune Biotech	<div></div>	IND in 2022
	Undisclosed  ALPINE Immune Sciences	<div></div>	
	HLA-A1 MAGE-A4	<div></div>	
	HLA-A24 MAGE-A4	<div></div>	
	New AFP TCRs (HLA-A2 and HLA-A24)	<div></div>	
	PRAME 	<div></div>	
TILs	TIL IL-7 	<div></div>	CTA submitted 
HiTs	HiT targets (e.g., GPC3)	<div></div>	

Our allogeneic pipeline for the near future

Making allogeneic cell therapies curative and mainstream for people with cancer

Platform	Product	Discovery	Preclinical
	Allogeneic T-cells targeting MAGE-A4	<div></div>	
	Other TCRs (inc. next-gen)	<div></div>	
	HiT mesothelin	<div></div>	
	Target 2 (unnamed)	<div></div>	
 <small>A Member of the Roche Group</small>	"Off-the shelf" TCR therapy target 1	<div></div>	
	Personalized cell therapy platform	<div></div>	



- MAGE-A4 targeted TCR
 - Validated target
 - Broad range of indications
- "Plug and play" platform
 - All wholly owned receptors
 - Next-gen and other enhancements



- Mesothelin HiT as first product
- Second target nominated but not named



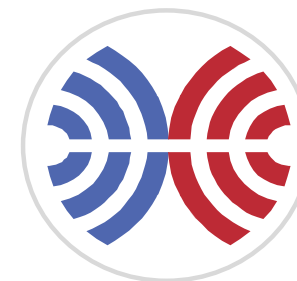
- Off-the-shelf T-cell therapies
 - Up to five targets
- Personalized medicine platform
 - Unique targets and receptors based on individual patient tumors

Planned data updates and catalysts for 2022 and beyond

Funded into early 2024

2022

- Initiate Phase 1 trial with next-gen TIL (ADP-TILIL7)* in melanoma
- Initiate Phase 1 trial with next-gen ADP-A2M4N7X19** in multiple indications
- SPEARHEAD-1 update at ASCO
- Initiate Phase 1 ADP-A2M4CD8 combination trial in multiple indications
- Initiate Phase 2 SURPASS-3 trial with ADP-A2M4CD8 in ovarian cancer
- Phase 1 SURPASS trial data at ESMO
- SPEARHEAD-1 data (pooled cohorts 1 and 2) at CTOS
- File BLA for afami-cel



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Five
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Two
allogeneic
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clinic

2023 and beyond

- SURPASS Phase 1 full data update
- SURPASS-2 and SURPASS-3 data updates
- Phase 1 next-gen trial updates (ADP-TILIL7 and ADP-A2M4N7X19)
- Preclinical pipeline program data updates
- Additional HLA IND filing and trial initiation
- Filing first IND for allogeneic product targeting MAGE-A4
- Afami-cel launch

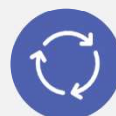
Roadmap to BLA: SPEARHEAD-1 trial has met primary endpoint

Plan to complete Biological License Application (BLA) submission in Q4 2022



Completed

- ✓ FDA agreement that SPEARHEAD-1 Cohort 1 may be sufficient to support BLA under accelerated approval (2020)*
- ✓ FDA agreement on historical response rate for 2nd line therapy in synovial sarcoma (2020)
- ✓ 100+ patients across trials have received afami-cel
- ✓ Last patient treated in Cohort 1 of SPEARHEAD-1
- ✓ Treatment in Cohort 2 of SPEARHEAD-1 initiated
- ✓ Database lock for primary analysis of SPEARHEAD-1
- ✓ SPEARHEAD-1 has met primary endpoint
- ✓ Pediatric plans agreed with regulatory agencies
- ✓ Nonclinical dossier completed



In Progress

- ☐ Miltenyi Biotec vector facility released for GMP manufacture
- ☐ Vector and T-cell product characterization
- ☐ Method validation for lot release assays (including potency assays)
- ☐ Vector process performance qualification (PPQ)
- ☐ Pre-BLA meeting
- ☐ Clinical dossier
- ☐ T-cell PPQ
- ☐ CMC dossier
- ☐ Pre-market approval (PMA) submission**
- ☐ BLA submission

* FDA agrees that inoperable or metastatic synovial sarcoma is a serious disease. ORR and duration of response (DOR) data from patients with unresectable or metastatic synovial sarcoma in a single-arm trial may be sufficient to provide substantial evidence of effectiveness of a durable response rate to support a request for accelerated approval

** This is a modular submission that would be initiated 1Q 2022 and the last piece (clinical piece) will be in 4Q 2022

Responses in multiple solid tumor indications expressing MAGE-A4

Responses reported with	Indication	Mortality US, UK & EU4*	MAGE-A4 Expression**	Potential MAGE-A4 +ve Patients	Potential MAGE-A4 +ve Patients Factored for HLA***
afami-cel ADP-A2M4CD8	Synovial sarcoma	1,804+	% 67	1,209	496
afami-cel	MRCLS	2,000+	% 34	680	279
ADP-A2M4CD8	Gastroesophageal (esophageal, EGJ, and gastric)	83,384	% 20	16,677	7,388
afami-cel ADP-A2M4CD8	Head and neck	41,409	% 22	9,110	4,036
ADP-A2M4CD8	Urothelial	52,568	% 32	16,822	7,452
afami-cel	NSCLC - squamous	76,875	% 35	26,906	11,919
afami-cel	Melanoma	19,037	% 16	3,046	1,349
ADP-A2M4CD8	Ovarian	31,558	% 24	7,574	3,355
				TOTAL MAGE-A4: 82,024	TOTAL MAGE-A4 HLA A2: 36,274

Significant potential for SPEAR T-cell franchise targeting MAGE-A4

*Mortality figures based on American Cancer Society 2022 (US) and Global Can (EU4/UK 2020)

**MAGE-A4 expression based on ADAP samples and expression cut off criteria of ≥30% tumor cells at ≥2+ intensity. Synovial sarcoma and MRCLS MAGE-A4 expression based on 1,043 patient samples at November 20, 2020 data cut-off and expression of all other tumor types on 6,167 patients, 1,543 tumor samples at November 19, 2021 data cut-off

***HLA A2 expression based on ADAP samples of 41% for synovial sarcoma and MRCLS (1,043 patient samples; data cut-off November 20, 2020) and 44.3% for all other tumor types (6,167 patients, 1,543 tumor samples; data cut-off November 19, 2021)

*synovial sarcoma and MRCLS figures reflect advanced/refractory treatable patients based on internal primary market research and will be updated with data from Adaptimmune's SPEARHEAD-1 trial post-CTOS 2022 (subject to Congress acceptance)

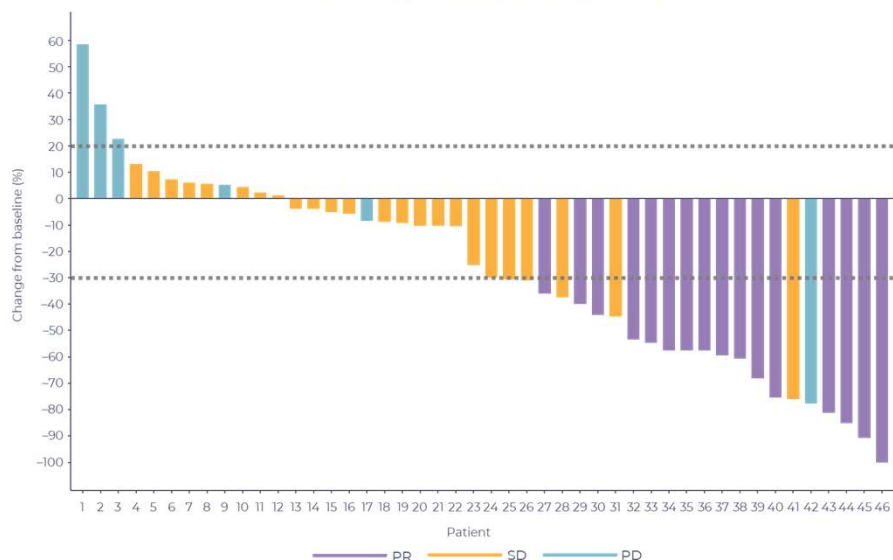


MAGE-A4 franchise

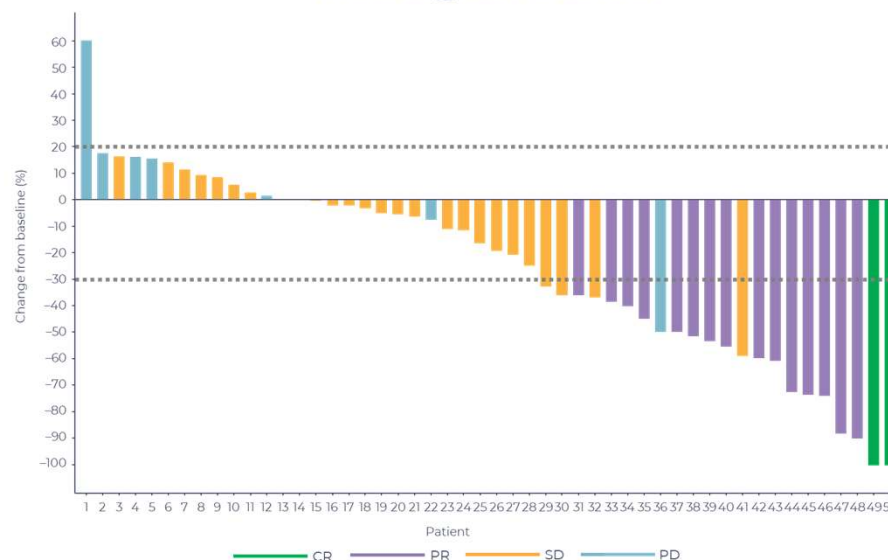
Deep responses observed with afami-cel therapy in the Phase 2 SPEARHEAD-1 trial

On track to file BLA in 2022; trial has met primary endpoint*

Independent review



Investigator review



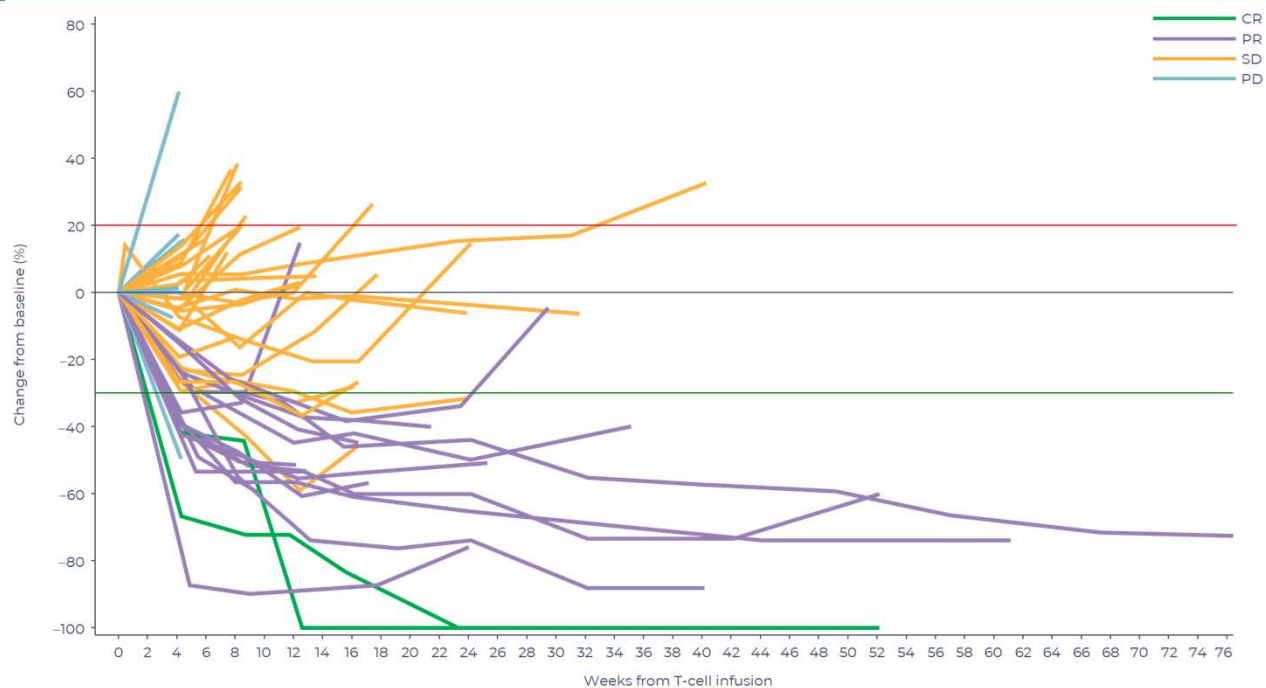
- Overall response rate 34% (16/47) per Independent Review
 - ✓ Synovial sarcoma 36% (14/39) and MRCLS 25% (2/8)
 - ✓ Disease control rate of 85%



Cohort 1 data. PD, progressive disease. Data represent percent changes from baseline in sum of diameters (sum of the long diameters for non-nodal lesions and short axis for nodal lesions) in target lesions through progression or prior to surgical resection. Three patient scans were pending review by Independent review at the time of the data cut-off

Durability encouraging with afami-cel therapy

Best overall response by RECIST v1.1 per investigator review



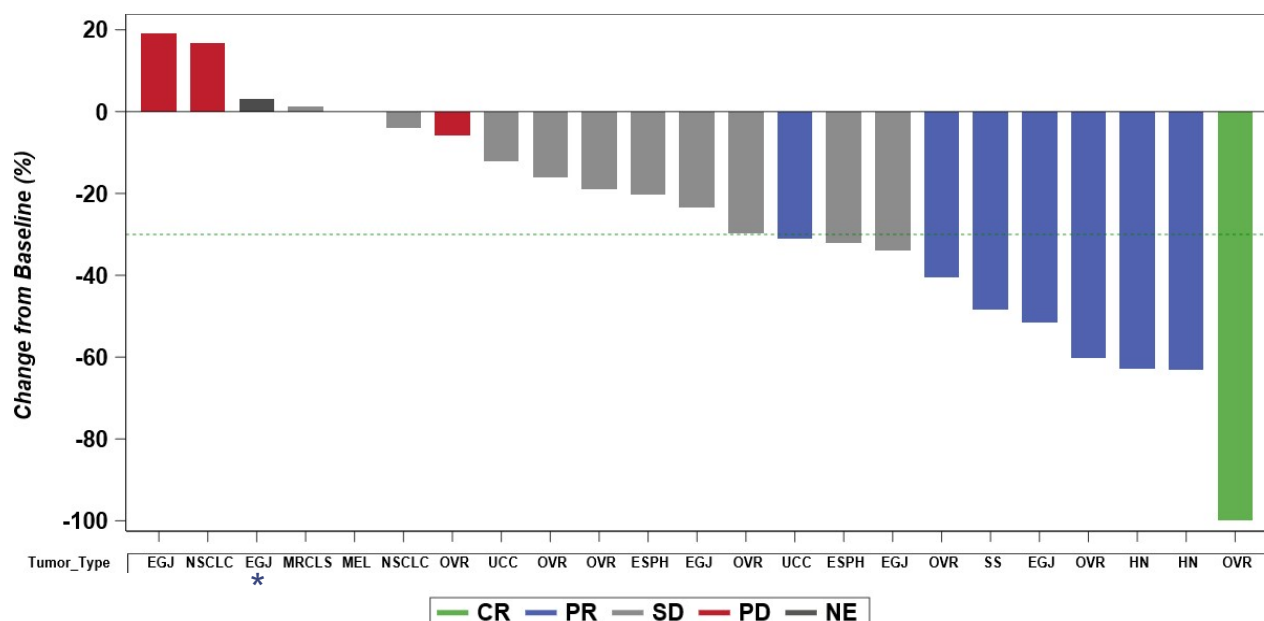
- Median time to response: 4.9 weeks (range, weeks: 4.1, 12.0)
- Median duration of response: not reached (range, weeks: 4.3+, 65.3+)⁺



Cohort 1 data. Data represent percent changes from baseline in sum of diameters (sum of the long diameters for non-nodal lesions and short axis for nodal lesions) in target lesions through progression or prior to surgical resection. Follow-up by Independent review was immature as of the data cut-off and is not presented.

Responses with ADP-A2M4CD8 in 5 solid tumor types in SURPASS Phase 1 trial

Initial efficacy is very promising with response rate of 36% (8/22*) and 86% (19/22*) disease control



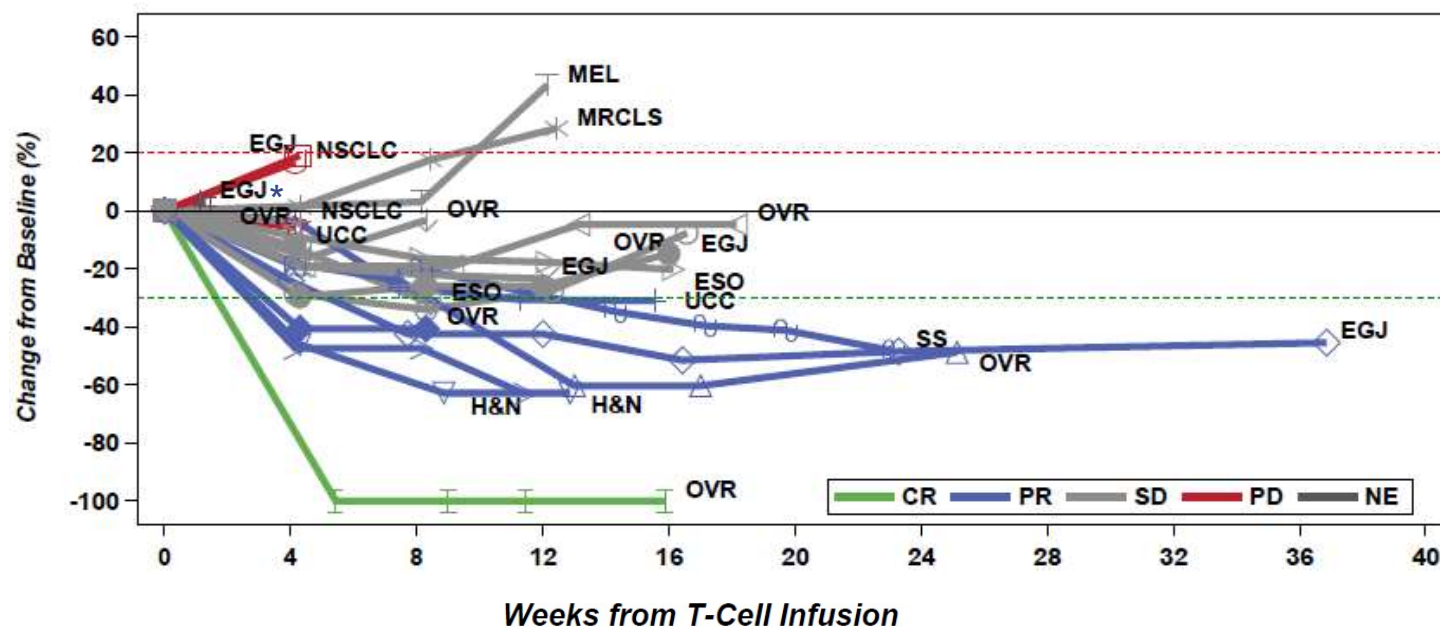
Data supports next-gen hypothesis, MAGE-A4 target, and potential of SPEAR T-cells in multiple solid tumor indications for people with cancer

Data represent percent changes from baseline in sum of diameters (sum of the long diameters for non-nodal lesions and short axis for nodal lesions) in target lesions through progression or prior to surgical resection; Responses evaluated by RECIST v1.1 per investigator assessment; Of 25 patients treated, 3 were not evaluable at the time of data cut-off: 2 patients (ovarian or esophageal cancers) did not have post-baseline scans; 1 patient (EGJ) had a post-baseline scan that did not meet the ≥4 weeks duration for stable disease; CR=complete response; PR=partial response; SD=stable disease; PD=progressive disease; NE=not evaluable; EGJ=esophagogastric junction cancer; NSCLC=non-small cell lung cancer; MRCLS=melanoma; OVR=ovarian cancer; ESPH=esophageal cancer; UCC=urothelial carcinoma or bladder cancer; SS=synovial sarcoma; HN=head and neck cancer

2021 ESMO congress

Initial durability with ADP-A2M4CD8 is encouraging and will continue to evolve

Several patients receiving clinical benefit for 24 weeks or more post-infusion



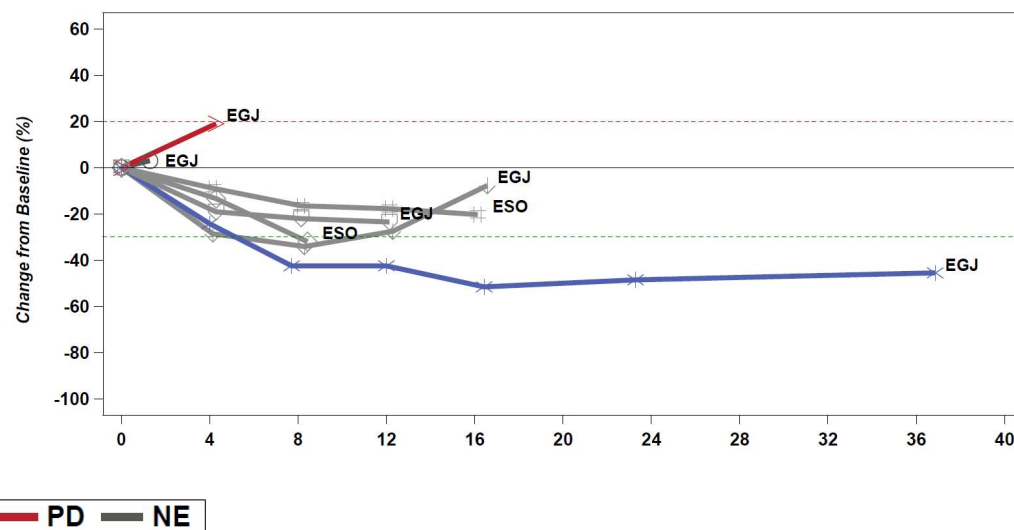
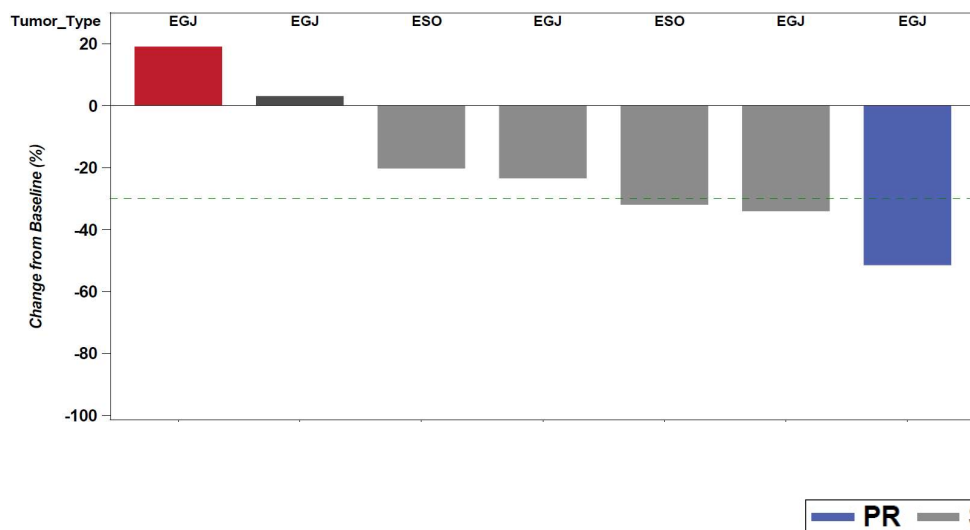
- Some patients experience continued reductions in tumors over several months post-infusion
- Median duration of response not reached

Data represent percent changes from baseline in sum of diameters (sum of the long diameters for non-nodal lesions and short axis for nodal lesions) in target lesions through progression or prior to surgical resection; Responses evaluated by RECIST v1.1 per investigator assessment; Of 25 patients treated, 3 were not evaluable at the time of data cut-off: 2 patients (ovarian or esophageal cancers) did not have post-baseline scans; 1 patient (EGJ) had a post-baseline scan that did not meet the ≥4 weeks duration for stable disease; CR=complete response; PR=partial response; SD=stable disease; PD=progressive disease; NE=not evaluable; EGJ=esophagogastric junction cancer; NSCLC=non-small cell lung cancer; MRCLS=myxoid/round cell liposarcoma; OVR=ovarian cancer; ESO=esophageal cancer; UCC=urothelial carcinoma or bladder cancer; SS=synovial sarcoma; HN=head and neck cancer

2021 ESMO congress

Data in esophageal and EGJ cancers confirm potential of Phase 2 SURPASS-2 trial

Data from patients with advanced esophagogastric junction (EGJ) or esophageal cancers



Data represent percent changes from baseline in sum of diameters (sum of the long diameters for non-nodal lesions and short axis for nodal lesions) in target lesions through progression or prior to surgical resection; Responses evaluated by RECIST v1.1 per investigator assessment

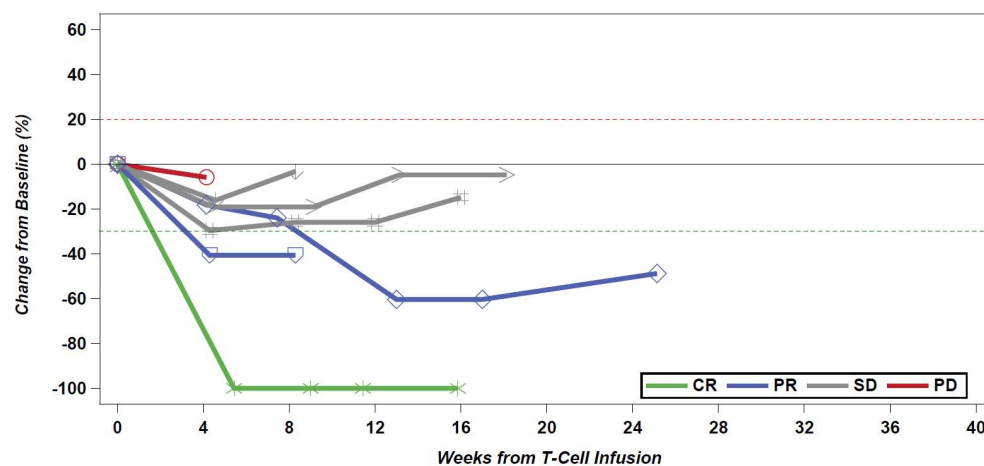
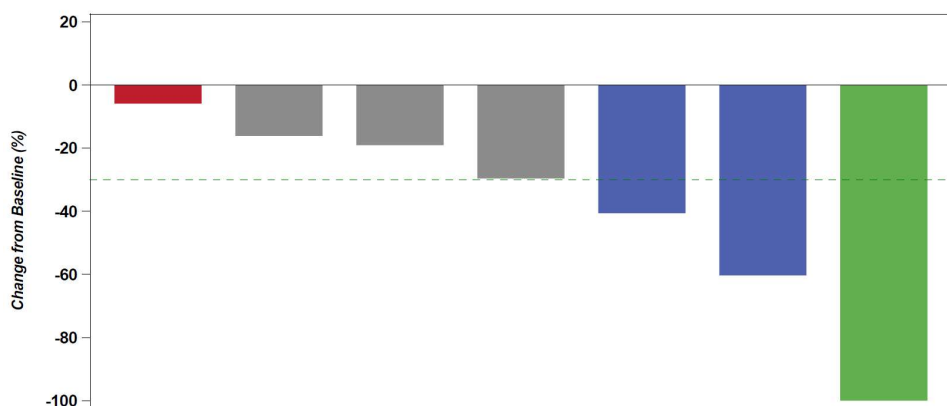
Phase 2 SURPASS-2 trial for patients with EGJ or esophageal cancers has initiated

2021 ESMO congress

Reductions in target lesions in all evaluable patients with ovarian cancer

Out of 7 evaluable patients – one complete response, 2 partial responses, and 3 stable diseases

Data from patients with platinum-ineligible ovarian cancer



— CR — PR — SD — PD

Data represent percent changes from baseline in sum of diameters (sum of the long diameters for non-nodal lesions and short axis for nodal lesions) in target lesions through progression or prior to surgical resection; Responses evaluated by RECIST v1.1 per investigator assessment

Will initiate SURPASS-3 for patients with ovarian cancer in 2022

2021 ESMO congress

Acceptable benefit:risk balance for first-gen afami-cel and next-gen ADP-A2M4CD8

SPEAR T-cells targeting MAGE-A4

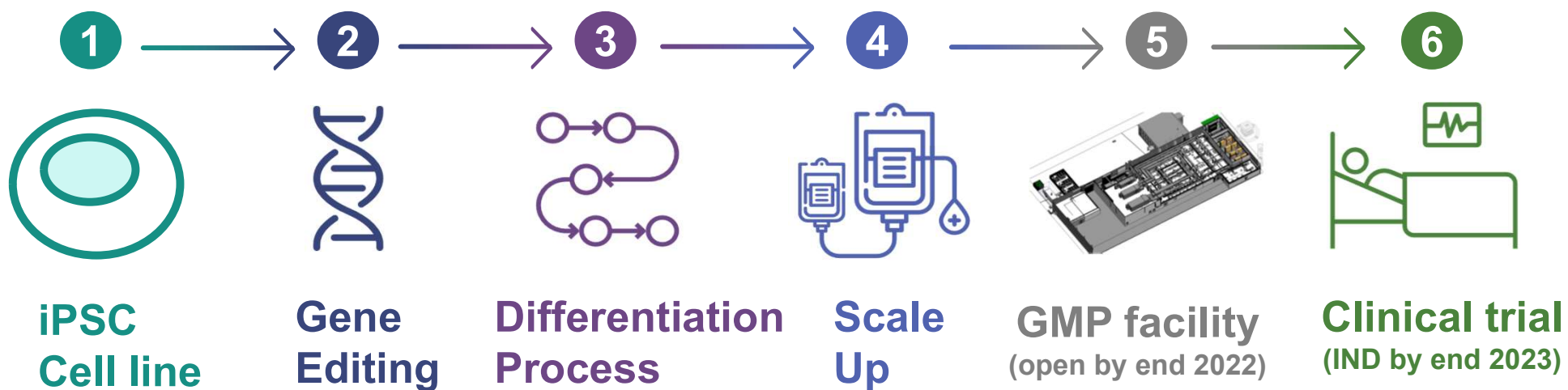
- Most adverse events have been consistent with those typically experienced by cancer patients undergoing chemotherapy, immuno-oncology therapy and/or adoptive cell therapy
- Afamitresgene autoleucel (afami-cel) and ADP-A2M4CD8 are associated with an acceptable benefit:risk balance for the indications under investigations
- Adverse events of special interest include:
 - Cytokine release syndrome (CRS)
 - Immune effector cell-associated neurotoxicity syndrome (ICANS)
 - › CRS and ICANS have been mainly lower grade and resolve with medical intervention, when necessary
 - Prolonged cytopenia
 - › Prolonged cytopenias are primarily related to lymphodepleting chemotherapy, and are appropriately managed with the current regimen and mitigation strategies



Our allogeneic platform and strategic collaboration with Genentech

Current focus for ADP-iTA2M4 is scaling the differentiation process prior to manufacturing

New GMP facility is under construction in preparation for producing material for clinical trial



iT-cell platform provides controlled, consistent off-the-shelf products

How we will deliver one product suitable for multiple patients on demand

1



Single source

- iPSCs from single donor stem cells
- High proliferative potential
- **Reproducible** starting material

Flexible platform

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

Scalable

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

Removing RAG gene eliminates native TCR to prevent GvHD

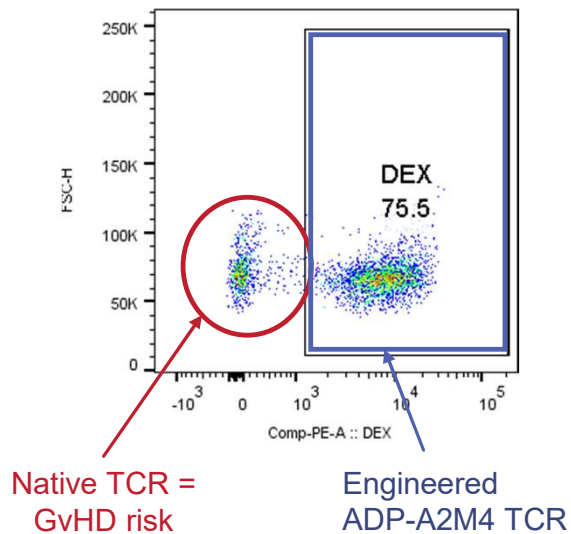
Recent gene editing progress ensures only MAGE-A4 targeted TCR is present – cloning ensures all iT-cells have edit

2

Clone 1 – RAG intact

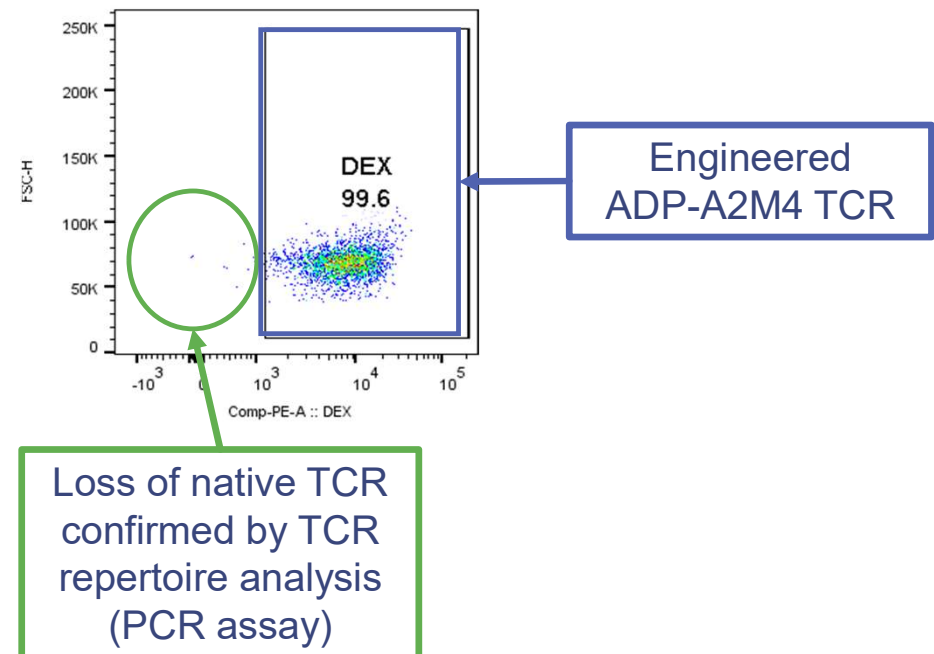
Both native TCR and
engineered ADP-A2M4 TCR present

Flow cytometry
(surface protein expression)



Clone 2 – RAG knockout

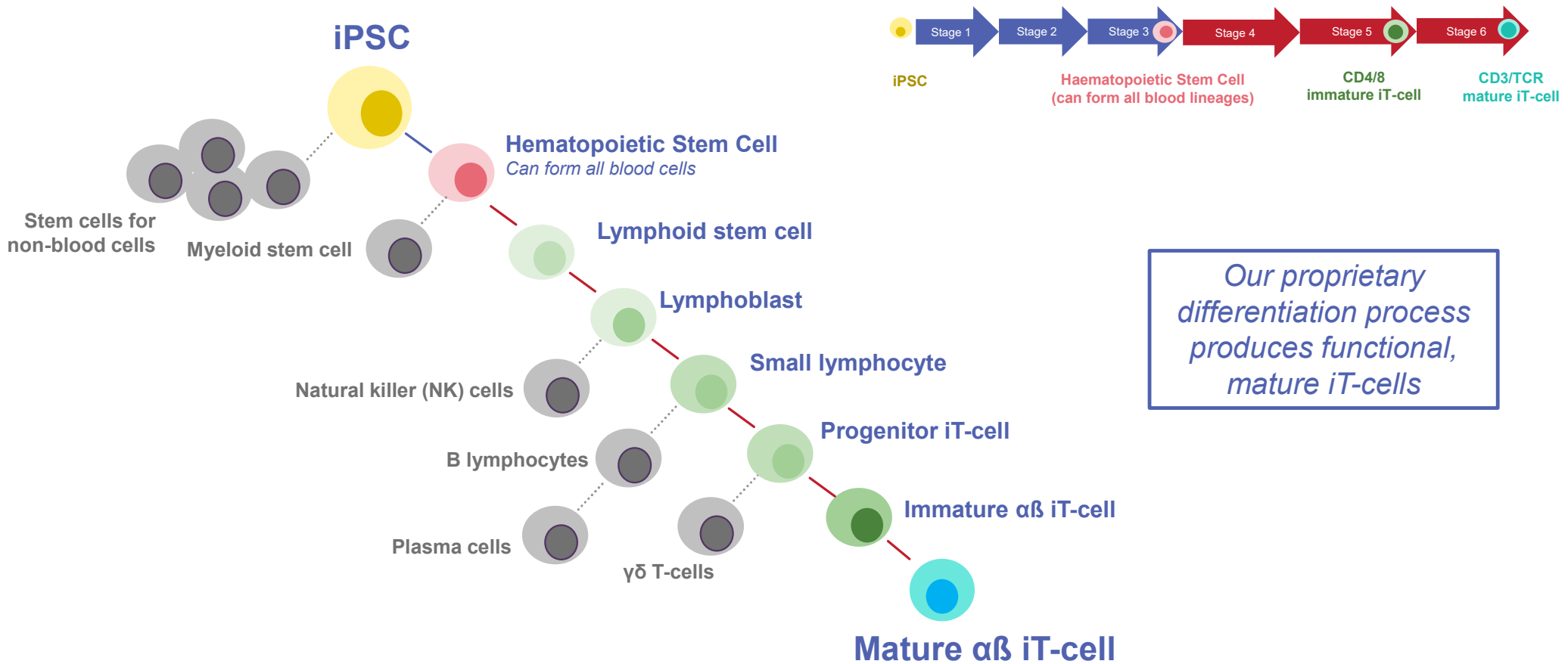
Only engineered
ADP-A2M4 TCR present



We chose to make $\alpha\beta$ T-cells from stem cells because they work in solid tumors

Differentiation path to mature $\alpha\beta$ T-cells is one of the longest for any lymphoid cells

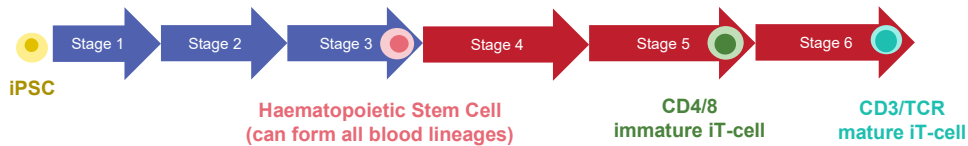
3



Autologous product sets the standard for making functional allogeneic iT-cells

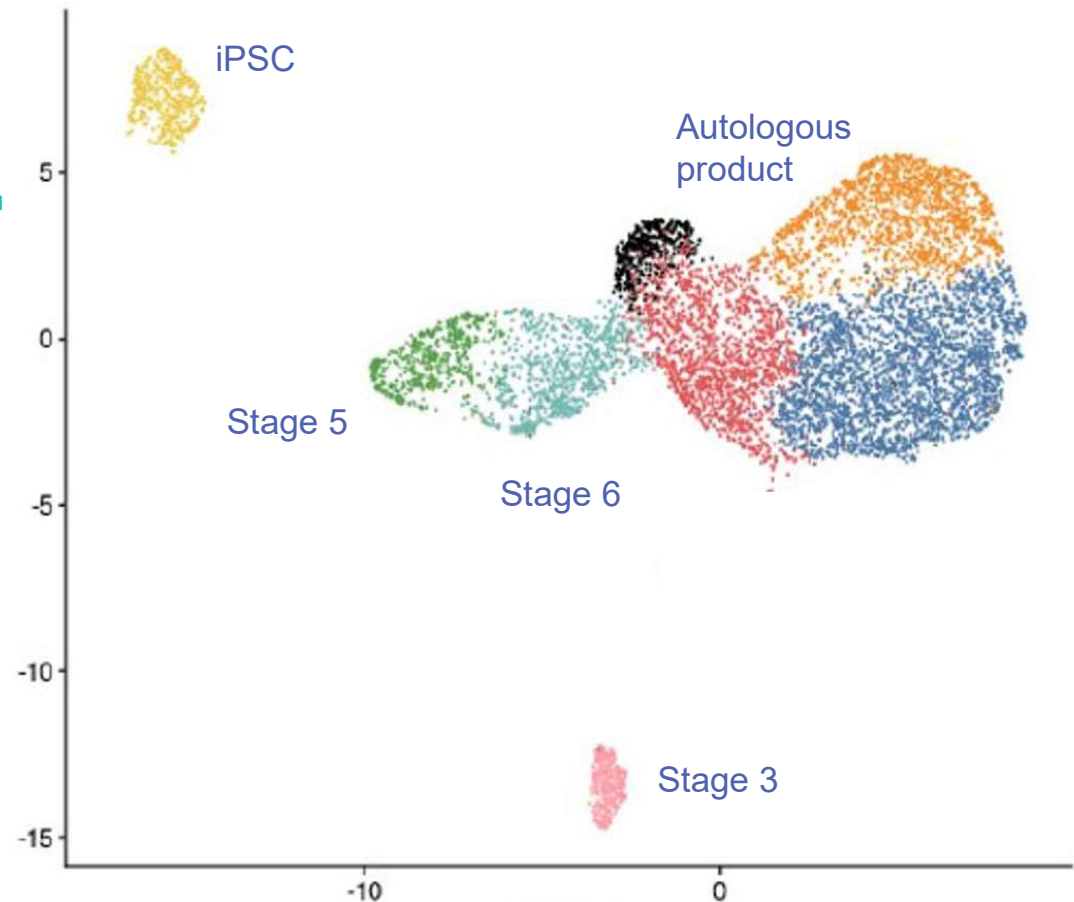
Proprietary differentiation process produces mature iT cells approaching genetic phenotype of autologous product

3



Our autologous T-cell products work in solid tumors

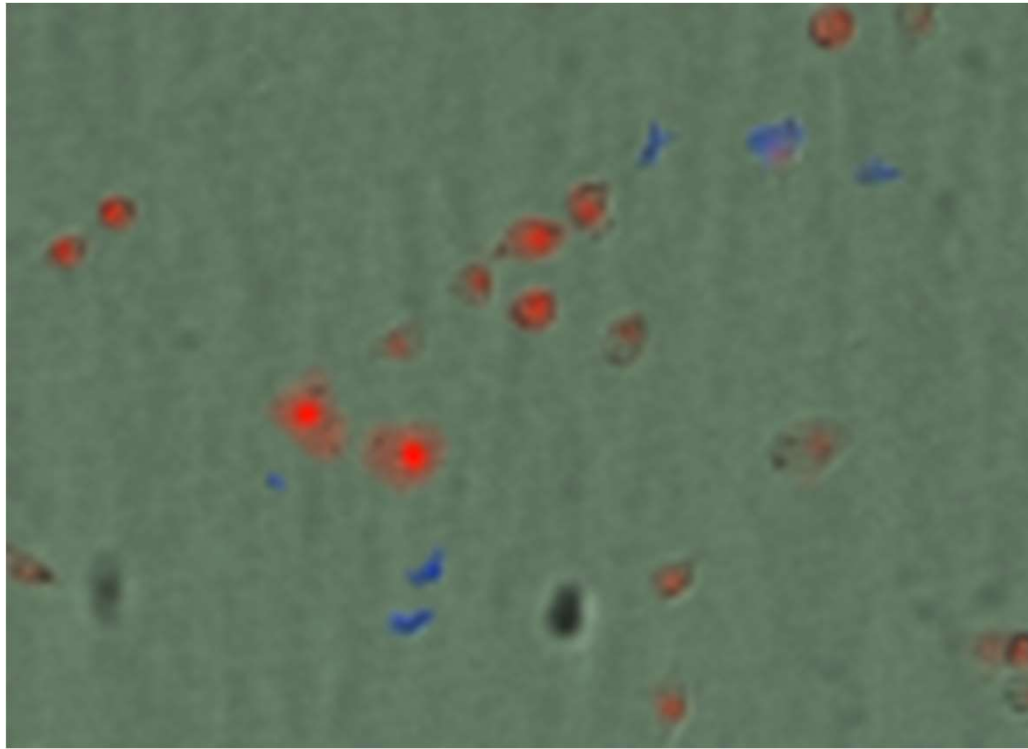
Single-cell gene analysis and clinical data provide map to ideal allo iT-cell



iT-cells can kill target more than once; the type of activity needed to treat solid tumors

Serial killing of tumor cells is a hallmark of mature, functional, effector T-cells

3



Our fully integrated cell production expertise puts us on quick path to allogeneic scale up

We know how to build world-class manufacturing facilities to supply products for the clinic

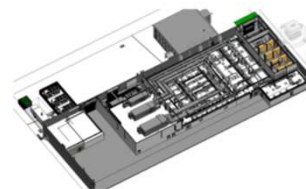
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5

Allogeneic facilities at Milton Park, UK



- Research
- Process development



- Allogeneic manufacturing

Aim to open by end of 2022

Leveraging successful build out of two autologous facilities in last 4 years



Navy Yard, US



Stevenage, UK



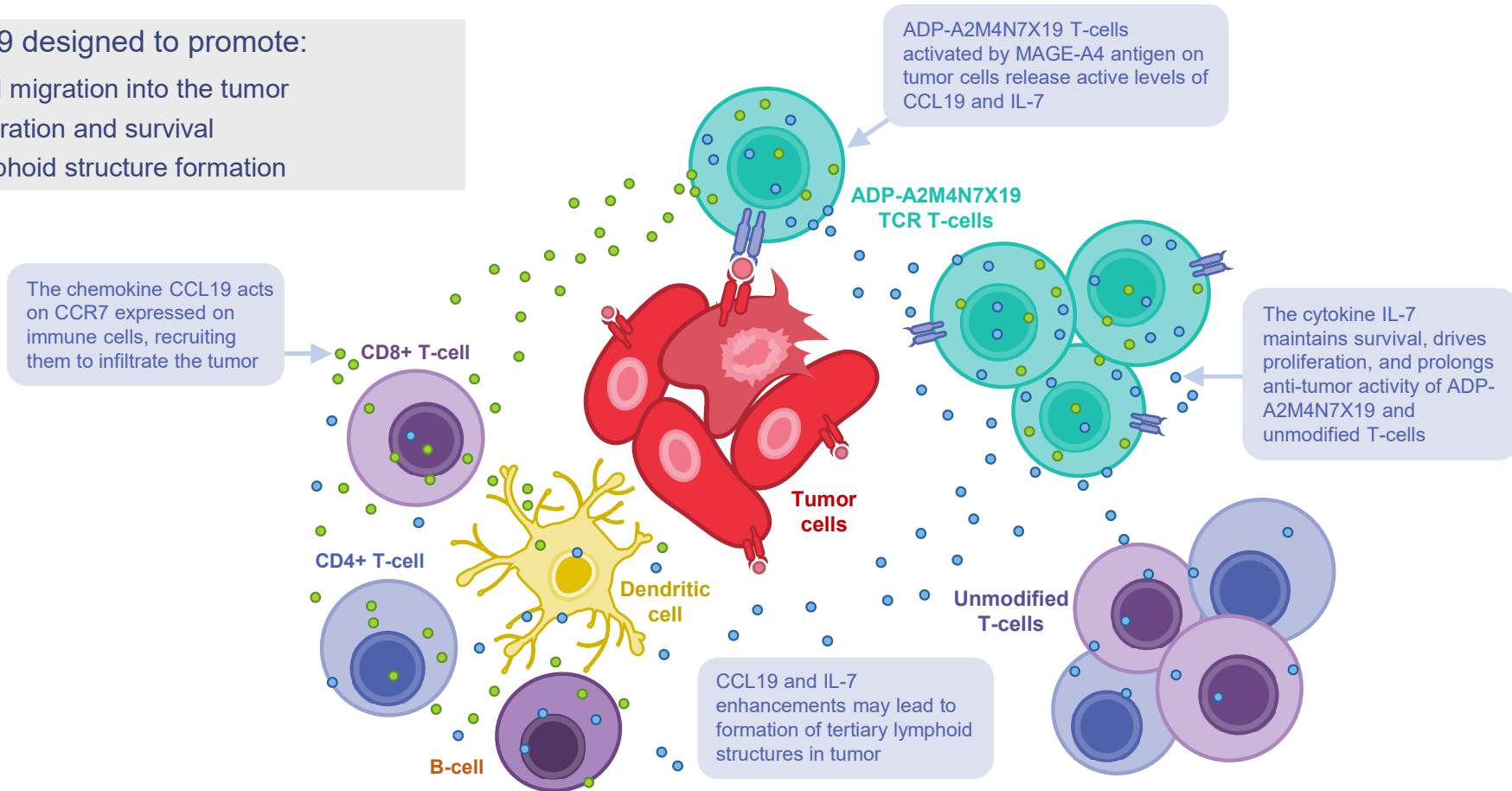
Preclinical pipeline

ADP-A2M4N7X19: Next-generation MAGE A4 product designed co-expressing IL-7 and CCL19*

To enhance the efficacy and persistence of SPEAR T-cells

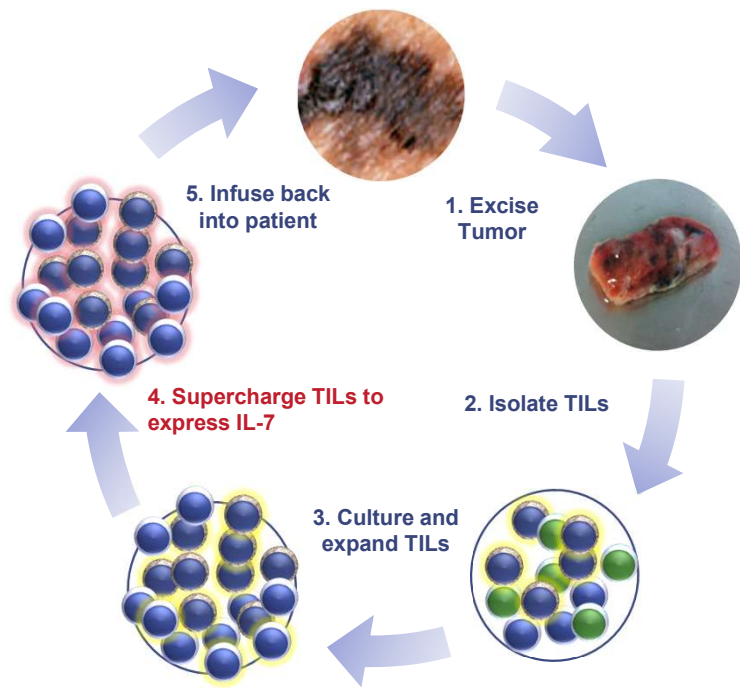
- IL-7 and CCL19 designed to promote:

- Immune cell migration into the tumor
- T-cell proliferation and survival
- Tertiary lymphoid structure formation

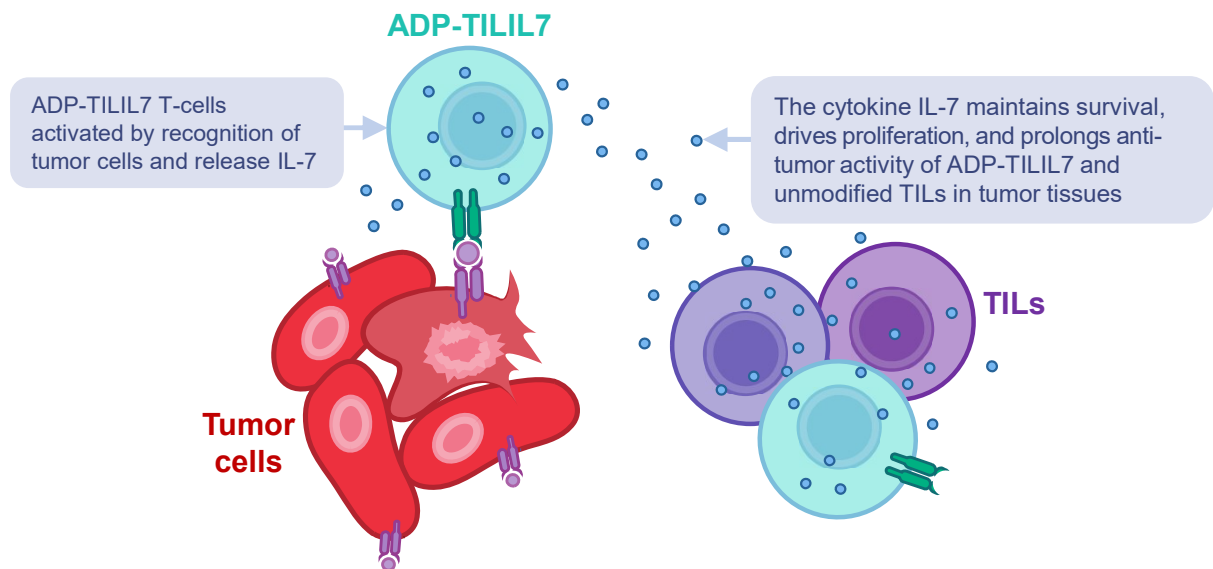


Working with CCIT to develop next-generation 'supercharged' TILs co-expressing IL-7

Partnership and single-center trial with CCIT, Denmark (leading TIL therapy center)



- TIL therapy is efficacious in solid tumors, including melanoma
 - Aim to transform patient responses with a next-generation TIL product
 - Builds on TCR discovery, next-gen product development and manufacturing
 - Broad market potential



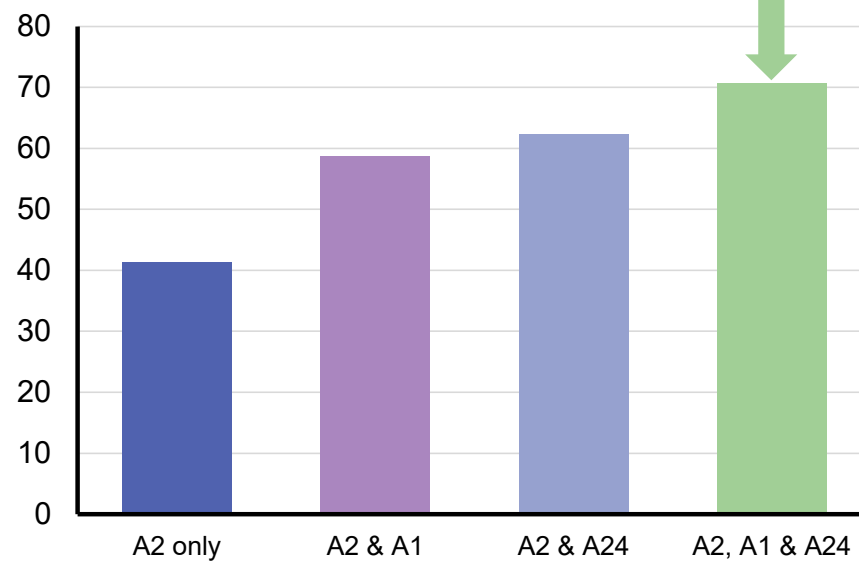
Increase treatable patient population with products targeting additional HLA types

Towards mainstream therapy

Single HLA allele frequency in patients

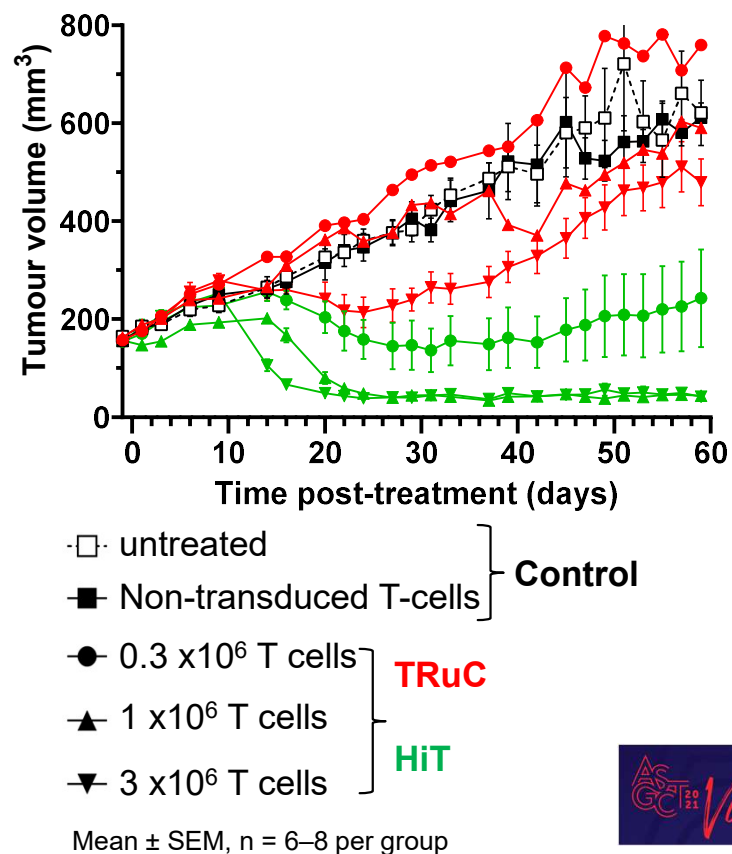
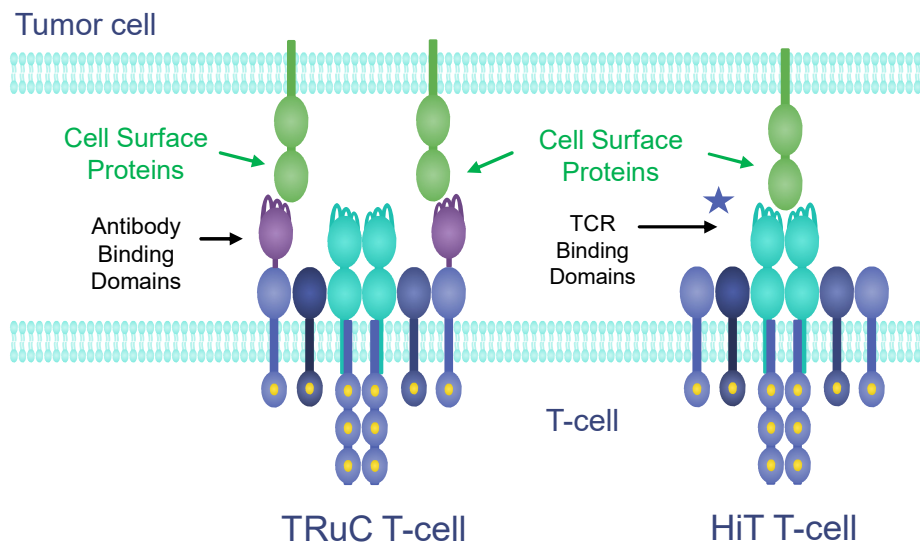
MAGE-A4	• HLA-A*02	41%
	• HLA-A*01	25%
	• HLA-A*24	26%

% of patients
screened*



HiT induces strong, dose-dependent and persistent tumor regression *in vivo*

HiT outperformed TRuC in a mouse tumor model





Supplying cell therapies to patients

Leading capabilities for designing and delivering cell therapies

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



~500 FTEs*

Philadelphia

- Autologous product manufacturing
- Clinical Development
- Commercial
- Corporate

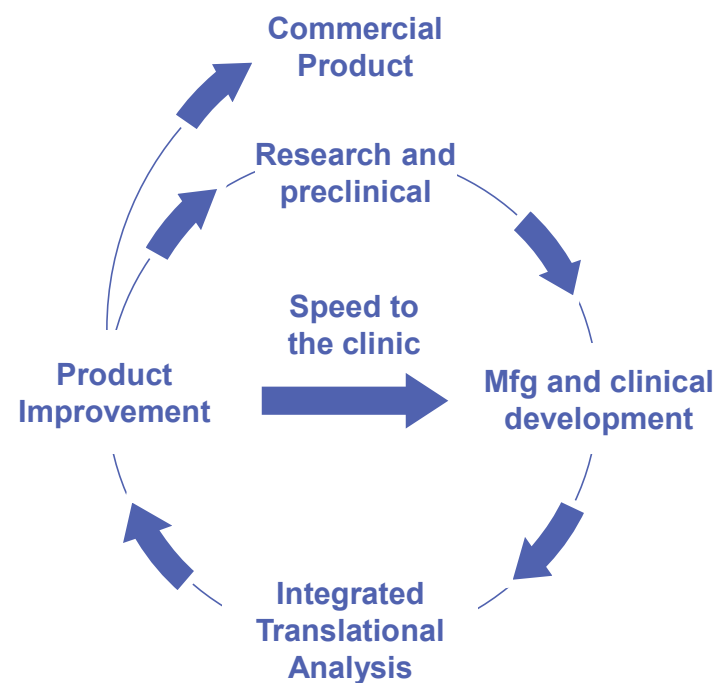
Milton Park

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

Stevenage

- Dedicated GMP Lentiviral vector manufacturing

Speed of innovation



The patient cell journey for autologous SPEAR T-Cell products

Current GMP manufacturing time of ~10 to 14 days



Identification and enrollment in the trial

Collection to cryopreservation ~2 days



- ✓ WBC collection (apheresis)
- ✓ Courier to manufacturing facility
- ✓ Cryopreservation



GMP manufacturing ~10 to 14 days



- ✓ Thaw WBCs and isolate T-cells
- ✓ Lentiviral transduction of SPEAR TCR
- ✓ T-cell expansion
- ✓ Cryopreserve dose prior to release testing

To clinical site for infusion



- ✓ Release testing

Apheresis to product release ~30 days

Manufacturing and supply as a key integrated capability

Ready to supply the future of cell therapy and deliver results for patients

Experienced cell therapy team

- Successfully manufactured 100's of autologous batches in-house for patients across multiple tumor types
- Deep expertise in process and analytical development, manufacturing and supply

Secured supply for commercial and clinical trials

- Internal and external lentiviral vector manufacturing
- Internal autologous product manufacturing and quality testing
- Building internal allogeneic product manufacturing facility

Scalable infrastructure “People, Processes, and Technology”

- Digitized autologous Patient Journey in place
- Autologous product capacity for nearly 1,000 patients per year
- Capabilities for continuous improvement

Improved Patient Experience and Wider Access



Company overview and financials

Cash runway into early 2024

Total Liquidity at end of Q4 2021 was ~\$370M*

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

SPEAR-heading

THE CANCER REVOLUTION



**Corporate Deck
April 2022**