

SPEAR-heading

TCCR

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 May 14, 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.

Responses in 6 solid tumor types confirm potential of SPEAR T-cell platform

Responses in synovial sarcoma, melanoma, head and neck, lung, esophagogastric junction, and liver cancer

New Phase 2 trial* in esophagogastric junction (EGJ) cancer planned for 1H 2021

Durability and response data in sarcoma support potential for **SPEARHEAD-1**** as a **registrational trial** – commercial launch planned in the US in 2022

SPEARHEAD-2 combination trial in head and neck cancer:** first trial with SPEAR T-cells and pembrolizumab in sequence with first line systemic therapy

Complete response in ADP-A2AFP Phase 1 trial in a patient with liver cancer

SURPASS* trial now focused on EGJ, head and neck, bladder, and lung cancer to identify **more indications for late stage development**

Integrated late-stage cell therapy company with cash runway to 2H 2021

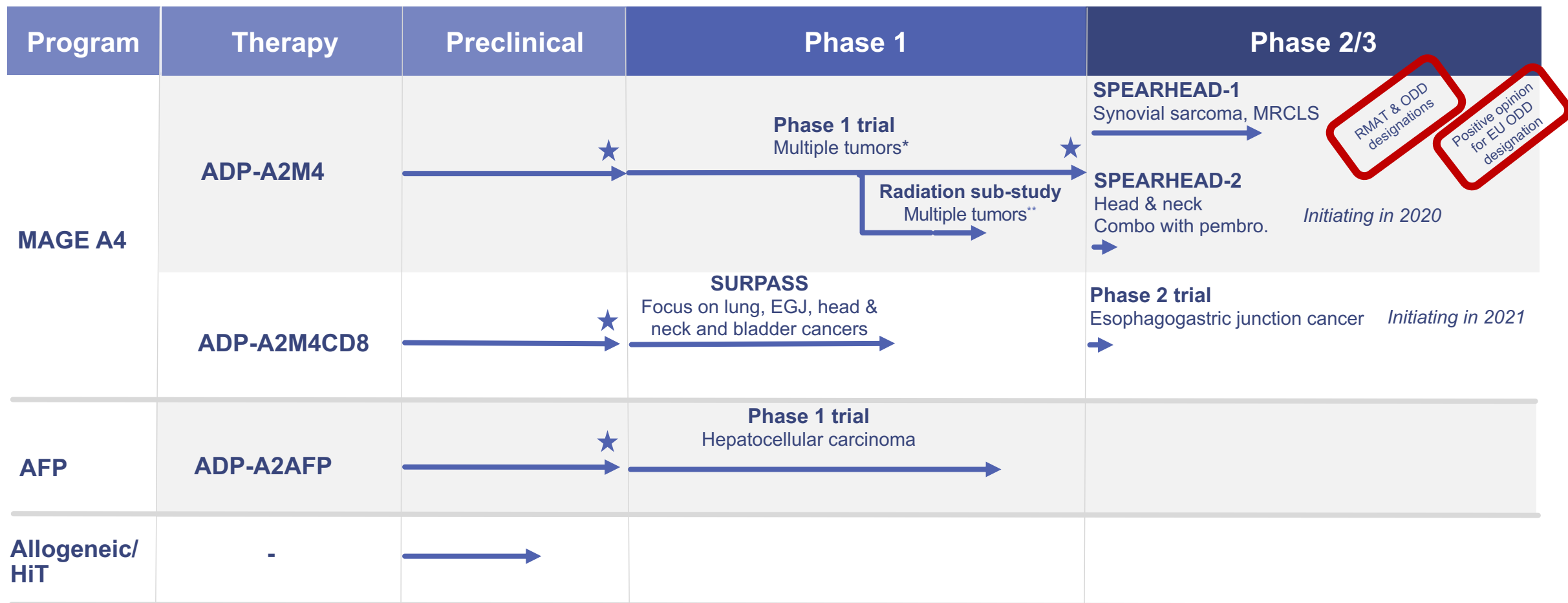


A female scientist with brown hair tied back, wearing a white lab coat and safety glasses, is looking through a black and white compound microscope. The background is a blurred laboratory setting with another person visible in the distance. A blue semi-transparent box is overlaid on the left side of the image, containing the text "Pipeline and company overview".

Pipeline and company overview

Three therapies in 4 clinical trials in 10 solid tumors

Goal to launch first TCR T-cell therapy in 2022



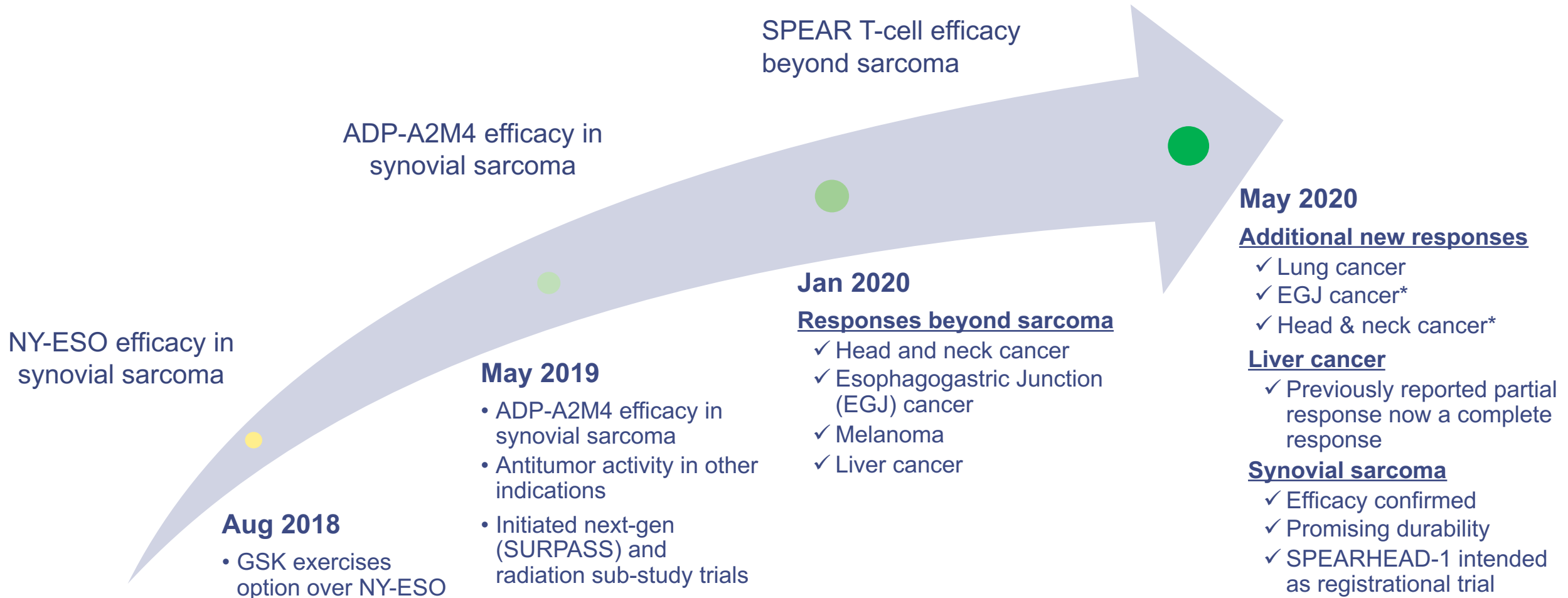
RMAT & ODD designations

Positive opinion for EU ODD designation

★ Completed stage

Our journey to responses in six solid tumors with our SPEAR T-cells

Building a pipeline of therapies with efficacy in multiple cancers and on the path to commercialization in 2022



SPEAR T-cell trials at ~40 leading clinical centers in 5 countries

Building the future of T-cell therapy through world-class expertise



VANDERBILT HEALTH

THE UNIVERSITY OF TEXAS
MD Anderson Cancer Center
Making Cancer History®

UNIVERSITY of MARYLAND
MARLENE AND STEWART GREENEBAUM
CANCER CENTER

Jefferson
Thomas Jefferson University

The UNIVERSITY of OKLAHOMA
Health Sciences Center

THE OHIO STATE
UNIVERSITY

School of Medicine
UNIVERSITY OF COLORADO

EMORY
WINSHIP
CANCER
INSTITUTE
National Cancer Institute Designated
Comprehensive Cancer Center

FOX CHASE
CANCER CENTER
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of Northwestern University

USC University of
Southern California

UCLA

MASSACHUSETTS
GENERAL HOSPITAL
CANCER CENTER

Washington
University in St. Louis
SCHOOL OF MEDICINE

Stanford
MEDICINE | Cancer Institute
A National Cancer Institute
Designated Comprehensive Cancer Center

MOFFITT
CANCER CENTER

SCRI
Sarah Cannon Research Institute

COLUMBIA
COLUMBIA UNIVERSITY
IRVING MEDICAL CENTER

Memorial Sloan Kettering
Cancer Center

MICHIGAN MEDICINE
UNIVERSITY OF MICHIGAN

Duke Cancer Center

United Kingdom

NHS
The Christie
NHS Foundation Trust

University College
London Hospitals
NHS Foundation Trust

NHS
Guy's and St Thomas'
NHS Foundation Trust

THE beatson
WEST OF SCOTLAND CANCER CENTRE

Canada

Princess Margaret
Cancer Centre UHN

CENTRE
DE LUTTE
CONTRE LE CANCER
**LEON
BERARD**

**GUSTAVE
ROUSSY**
CANCER CAMPUS
GRAND PARIS

France

INSTITUT PAOLI-CALMETTES
unicancer Marseille

Hospital Universitario
SaludMadrid 12 de Octubre

Vall d'Hebron
Hospital

Clínica
Universidad
de Navarra

Spain

CLÍNICA
BARCELONA
Hospital Universitari

Hospital Universitario
Fundación Jiménez Díaz
Grupo Quirónsalud

Catalysts in 2020 and beyond

Date updates expected, cash runway to Q3 2021, and multiple business development opportunities



2H 2020

- Safety update on Cohorts 1 & 2 of ADP-A2AFP Phase 1 trial*
- Update on Cohort 3 of the ADP-A2AFP Phase 1 trial*
- Updates on dose escalation cohorts from SURPASS trial*
- Update on ADP-A2M4 Phase 1 radiation sub-study*
- Update on ADP-A2AFP expansion cohort*
- Additional durability and translational data from patients with synovial sarcoma from ADP-A2M4 Phase 1 trial*

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1H 2020

- Responses in solid tumors outside sarcoma ✓
- Co-development and co-commercialization agreement with Astellas ✓
- Data update from allogeneic program at scientific meeting ✓
- Full summary of ADP-A2M4 Phase 1 trial ✓
- Initiation of ADP-A2M4 with pembro. in combination trial in head & neck cancer



2021 and beyond

- Next products into clinic
- Data from SPEARHEAD-1
- ADP-A2M4CD8 Phase 2 trial in EGJ cancer
- Phase 2 trials in additional indications
- Allogeneic program update
- ADP-A2M4 launch in sarcoma in the US in 2022

Integrated T-cell therapy company with end-to-end capabilities

World class capabilities for designing and delivering cell therapies

- Leading platform for T-cell therapy in solid tumors
 - TCR T-cell biology and product optimization
 - Leading iPSC-based off-the-shelf (allogeneic) platform
 - Expert translational group
- Experienced oncology drug development team
 - Strategic alliance with MD Anderson Cancer Center
 - T-cell regulatory expertise
- Fully integrated cell & vector manufacturing capabilities
- Commercial build-out



Philadelphia (Navy Yard)

- GMP cell manufacturing, clinical / regulatory, translational sciences



Milton Park, UK

- Research, preclinical development, CMC process development
- Corporate headquarters



Stevenage, UK

- Cell and Gene Therapy Catapult Manufacturing Center
- GMP vector manufacturing



SPEAR T-cells targeting MAGE-A4 and AFP

Broad responses in multiple solid tumors with SPEAR T-cells targeting MAGE-A4

Path to registration in synovial sarcoma, Phase 2 trials in other indications

	Tumor Type (Responses ^a / patients dosed)											
	Overall	Synovial Sarcoma	Head & Neck	EGJ	Lung	Bladder	Melanoma	Ovarian	MRCLS	Gastric	Esophageal	
ADP-A2M4 (Phase 1 & sub-study)	10/39 ^b	8/16 ^b	1/3	0/1	1/2	0/2	1/2	0/9	0/2	0/1	0/1	
ADP-A2M4CD8 (SURPASS)	3/4	0	1/1 ^b	2/2 ^b	0	0	0	0/1	0	0	0	
Combined	13/43	8/16	2/4	2/3	1/2	0/2	1/2	0/10	0/2	0/1	0/1	

↓

SPEARHEAD-1
in synovial sarcoma

↓

SPEARHEAD-2
ADP-A2M4 + pembro.
in head & neck cancer

↓

Radiation sub-study
continues to recruit

↓

Planned
Phase 2 in EGJ cancer
with ADP-A2M4CD8

↓

SURPASS focus:
lung, EGJ, head & neck, and
bladder cancer

a: 38 patients from the ADP-A2M4 Phase 1 trial; 1 patient from the radiation sub-study with melanoma

b: Includes an unconfirmed PR as of 20 May 2020; data cut off 06 Apr 2020 (ADP-A2M4); 24 May 2020 (SURPASS)

EGJ=esophagogastric junction cancer; MRCLS=myxoid/round cell liposarcoma

Efficacy with SPEAR T-cells targeting MAGE-A4

Responses in five indications in patients with advanced cancers*

ADP-A2M4 Phase 1 trial

- ✓ **Responses in sarcoma**
 - 8/16 PRs (including one unconfirmed PR)
 - Disease control in 15/16 patients
- ✓ **Confirmed PR**
 - Head & neck cancer (-36%)
- ✓ **New confirmed PR**
 - Lung cancer (-36%)^a

ADP-A2M4 Radiation sub-study

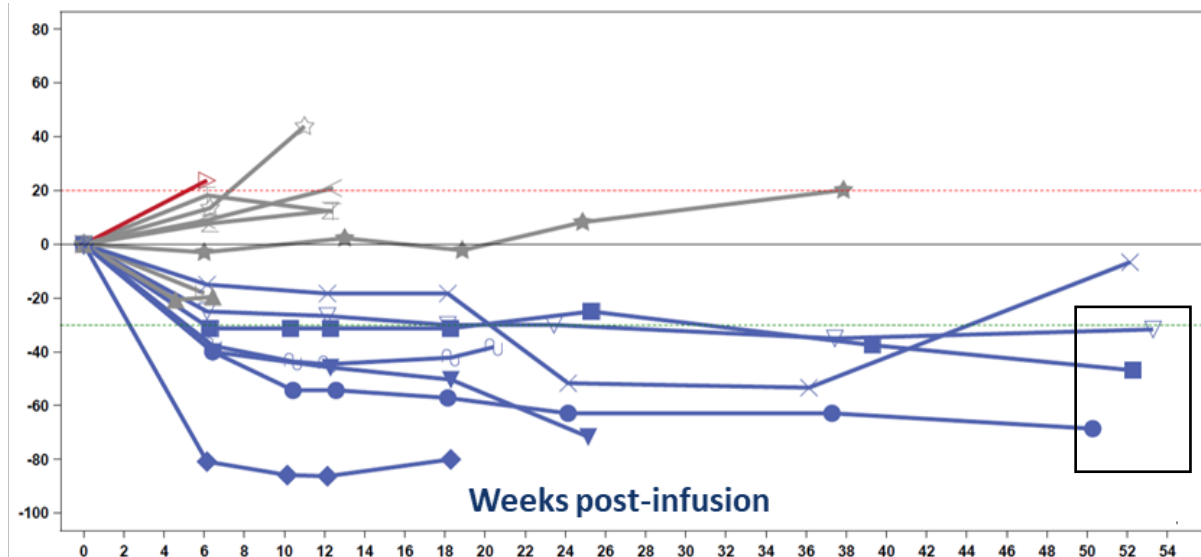
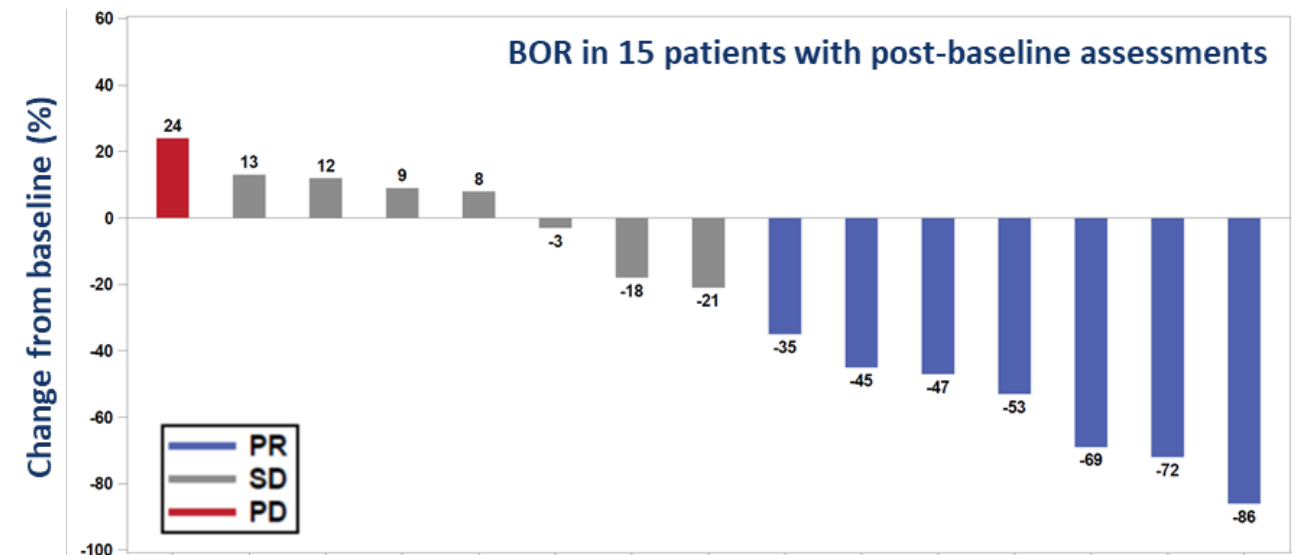
- ✓ **Confirmed PR (-42%)**
 - Rectal mucosal melanoma
 - First patient dosed in sub-study

SURPASS ADP-A2M4CD8 Phase 1 trial

- ✓ **First 3 out of 4 patients responded**
- ✓ **Two PRs in EGJ cancer**
 - Confirmed PR (-48%)
 - **New unconfirmed PR (-34%)^b**
- ✓ **New unconfirmed PR (-47%)^b in head & neck cancer**

Efficacy in synovial sarcoma with ADP-A2M4 – SPEARHEAD-1 trial intended for registration

Confirmed responses in ~50% of patients with a disease control rate of ~90%



Responses were durable

Median duration of response was ~28 weeks (range: ~12 to 54 weeks)

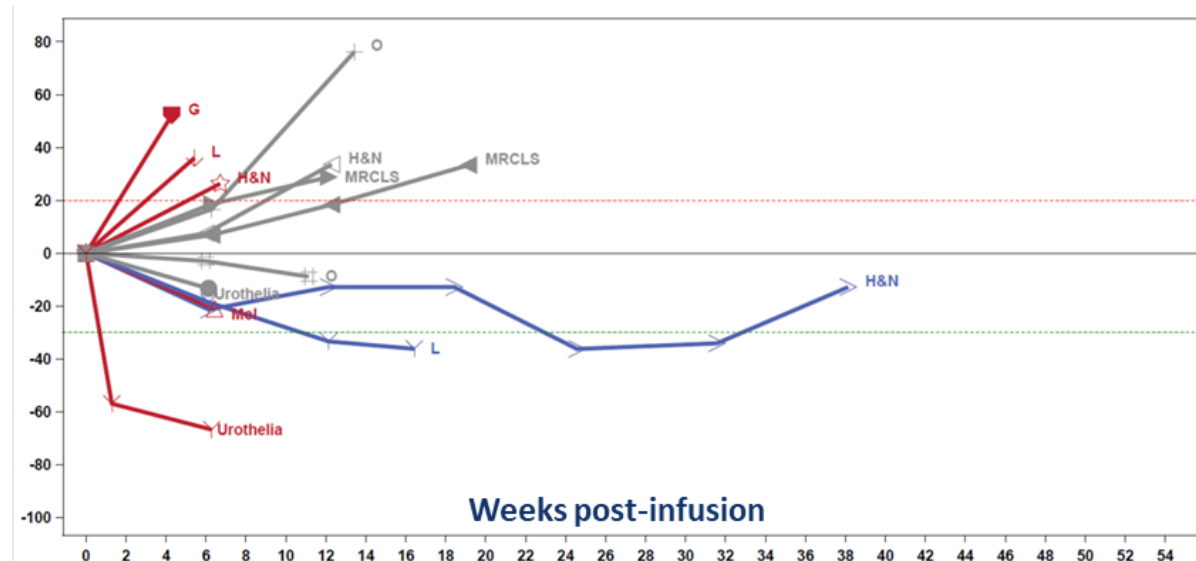
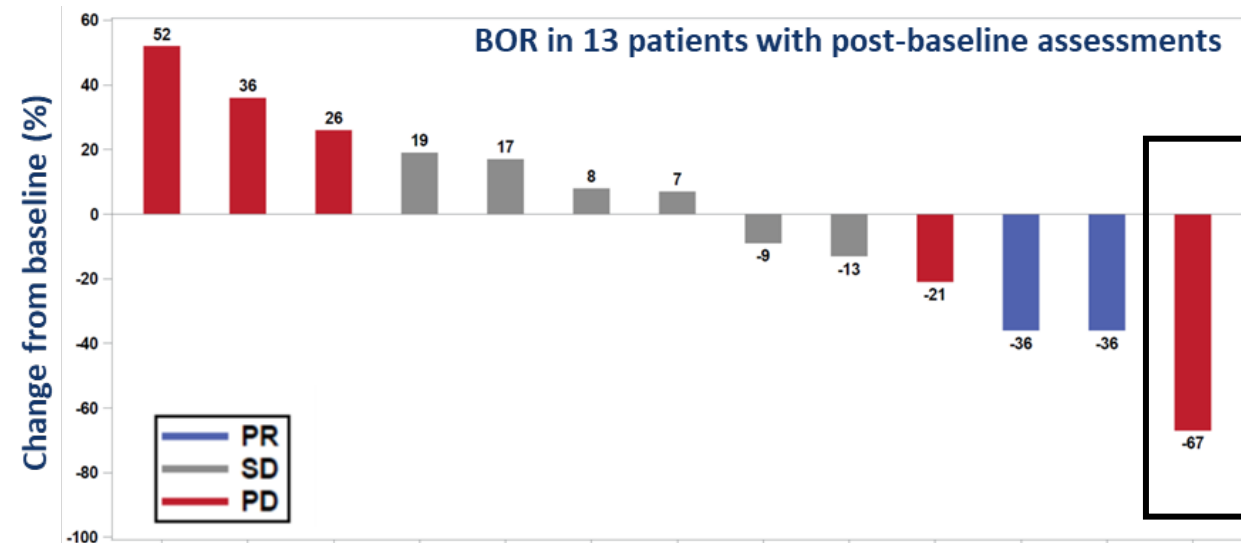
Additional patient with unconfirmed response after data cut-off

SPEARHEAD-1 Trial intended for registration (futility removed)

PRESENTED AT: 2020 ASCO ANNUAL MEETING

ADP-A2M4 SPEAR T-cells induce responses and anti-tumor activity in multiple cancers

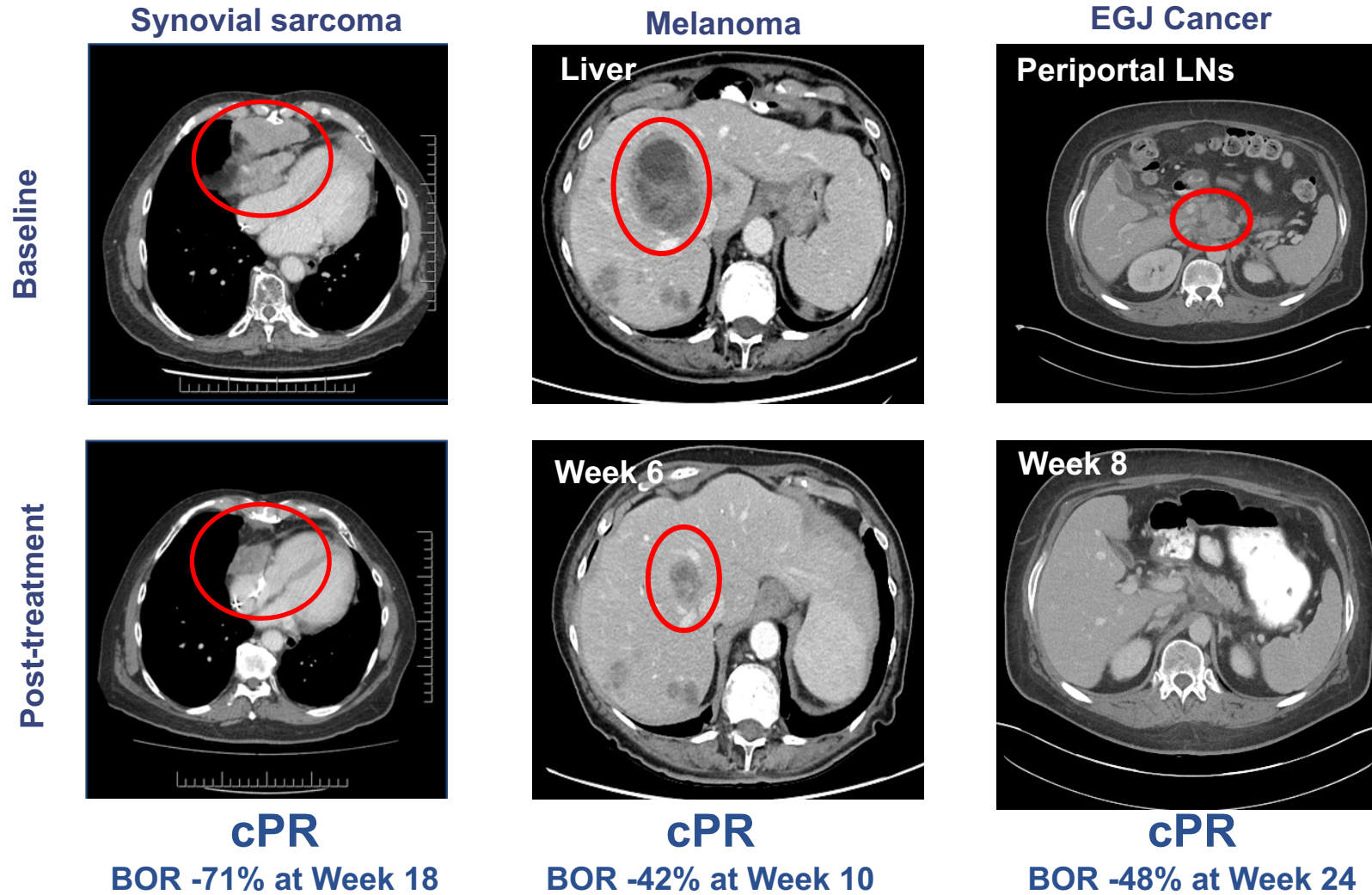
Responses in lung and head & neck cancer. Tumor reductions in ovarian cancer, bladder cancer, and melanoma.



Confirmed responses in lung cancer and head & neck cancer
Tumor reductions in ovarian cancer, bladder cancer, and melanoma

PRESENTED AT: 2020 ASCO ANNUAL MEETING

SPEAR T-cells targeting MAGE-A4 can address bulky solid tumors



Complete response in patient with liver cancer with ADP-A2AFP

Update at International Liver Congress (ILC) in August 2020

ADP-A2AFP Phase 1 trial

✓ Confirmed Complete Response

- 1st patient dosed in 3rd Cohort at 5B cells*
- Hepatocellular carcinoma (HCC; liver cancer)
- Significant decrease in serum AFP
- Next two HCC patients in Cohort 3 did not respond
- Opened non-HCC cohort for patients with AFP⁺ tumors
- 1 non-HCC patient has been treated and did not respond
- Update at ILC in August 2020

Baseline



Post-treatment



Safety with SPEAR T-cells

Patients treated with ADP-A2M4, ADP-A2AFP, ADP-A2M4CD8, ADP-A2M10 (n=77)*



In general, patients have tolerated the treatment well with an acceptable safety profile



AEs of special interest included CRS, neurotoxicity, and prolonged cytopenias, which occur at rates consistent with other cell therapies, and are managed in keeping with current guidelines



Most adverse events consistent with those typically experienced by cancer patients undergoing cytotoxic chemotherapy or other cancer immunotherapies

Favorable benefit : risk profile for all products and indications under study

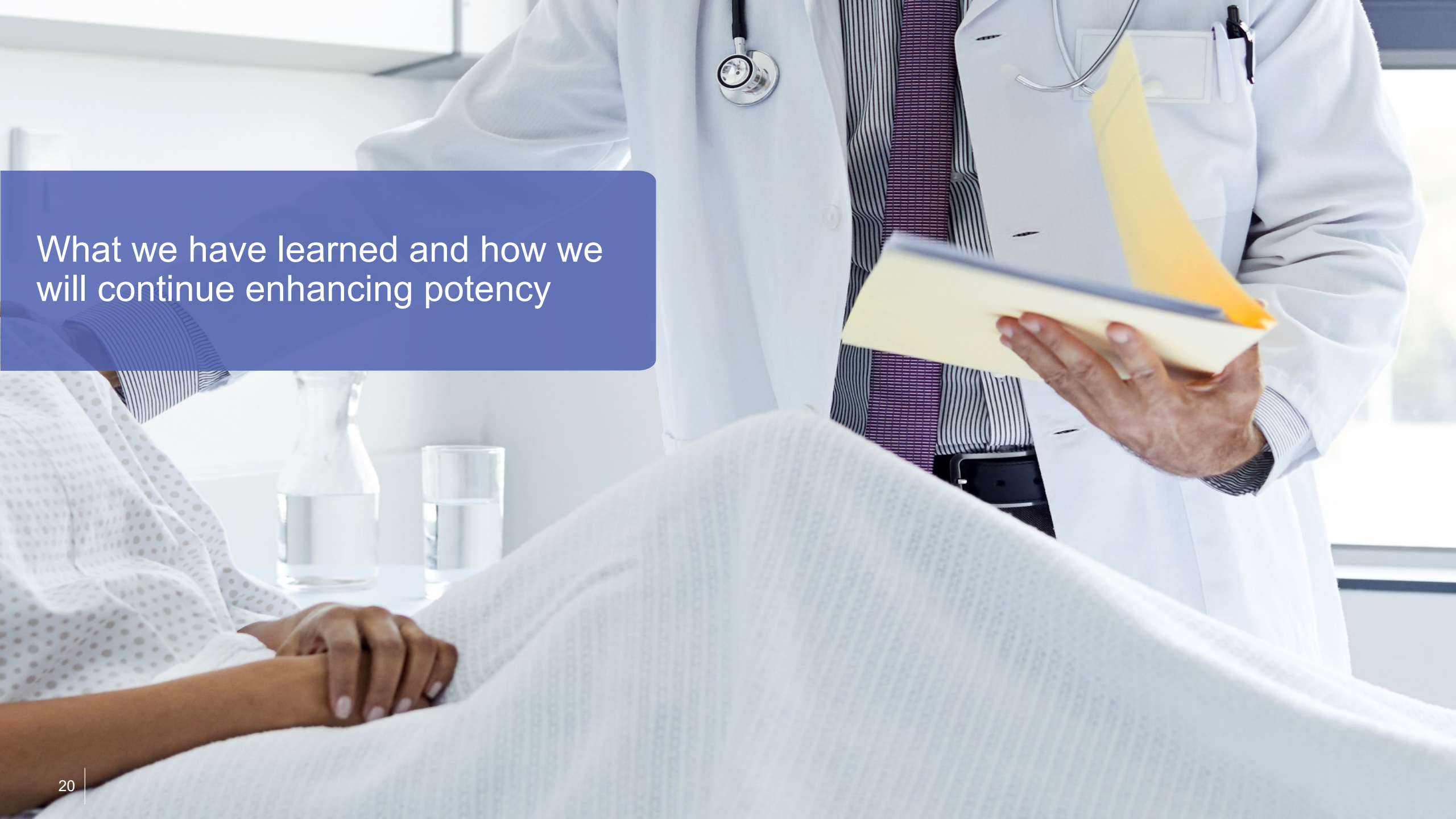


Aiming to launch our first therapy in
the US in 2022

Progress towards launch of first therapy in the US in 2022

Aim to complete SPEARHEAD-1 recruitment by 1H 2021

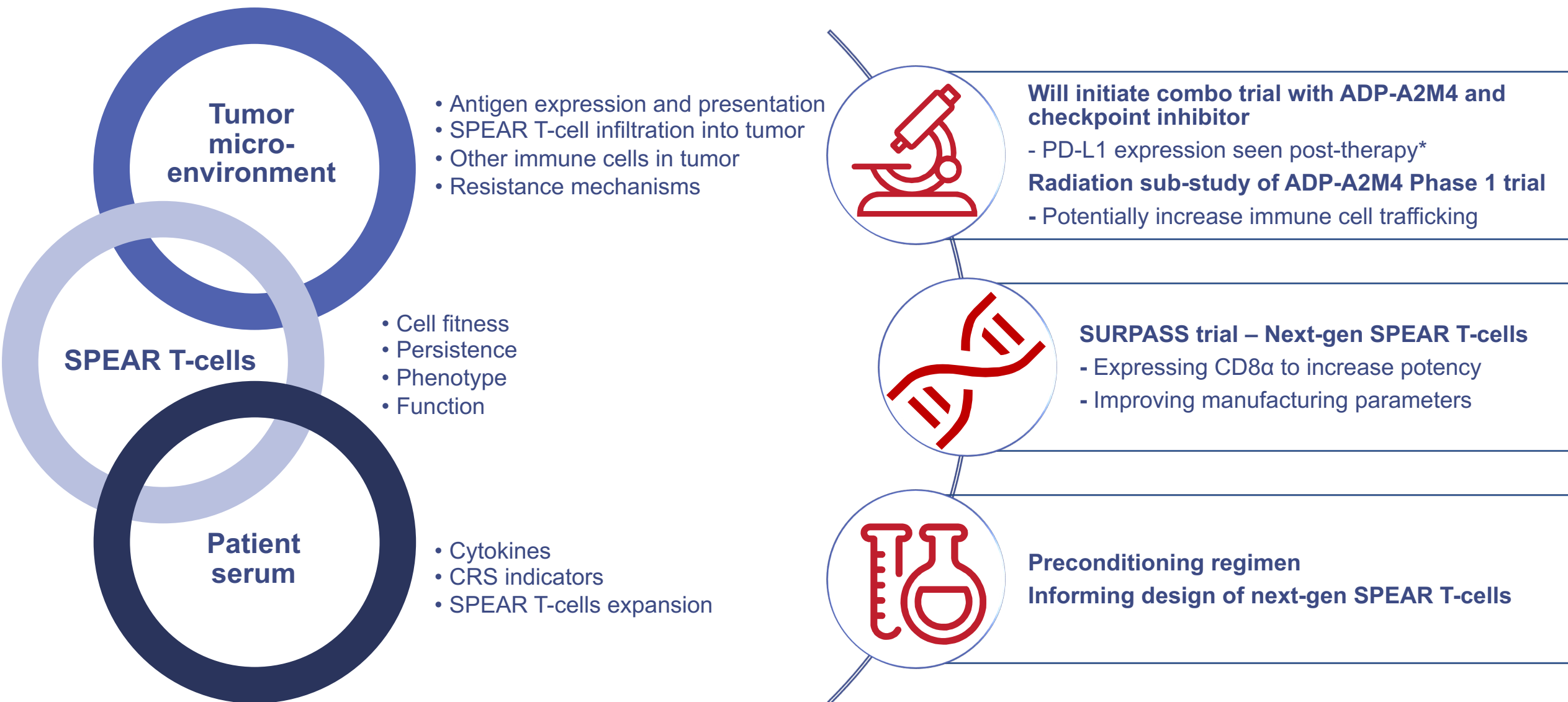
- SPEARHEAD-1 intended to be used for registration
 - Based on the strength of the ADP-A2M4 Phase 1 data, futility analysis removed resulting in a decrease in patient population size from 65 to 45
 - Recruiting patients in 20 centers in Canada, France Spain, and the US
 - Screening increase in Q1
 - › Screened 123 of 230 patients likely required to complete trial
 - › To date 34 eligible patients based on HLA and MAGE-A4 expression – 8 of whom have been enrolled
- Constructive interactions with FDA and EMA including following designations being granted:
 - Orphan Drug Designation (ODD) to SPEAR T-cells targeting MAGE-A4 for treatment of soft tissue sarcomas
 - Regenerative Medicine Advanced Therapy (RMAT) designation for treatment of synovial sarcoma
 - Positive Opinion for Orphan Drug Designation for ADP-A2M4 for treatment of soft tissue sarcomas



What we have learned and how we
will continue enhancing potency

Connecting the dots to build better therapies for people with cancer

Cutting edge translational research informing our current clinical trials and next-gen approaches



A female scientist with brown hair tied back, wearing a white lab coat and safety glasses, is looking through a black and white microscope. The background is a bright, out-of-focus laboratory with another person visible in the distance. A blue semi-transparent box is overlaid on the left side of the image.

Beyond our current clinical pipeline

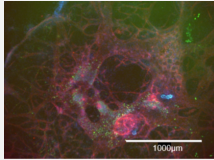
Beyond our current therapies in clinical trials

Our allogeneic program as well as partnerships for next-gen cell therapies

Our allogeneic program

This source of T-cells, combined with engineering expertise, enables new generation of off-the-shelf T-cell therapies

- Produce T-cells from stem cells that kill cancer targets*
- Can be used with any engineered T-cell (TCR and CAR-T)
- Process does not use human serum or stromal cell lines
- Enables scale-up, GMP manufacture of edited off-the-shelf lines
- Agreed first collaboration program target for which the companies will develop an allogeneic HLA independent TCR (HiT) therapy



CD34 (red) CD3 (green) nuclei (blue)

Partnerships for next-generation therapies



Proliferation inducing and migration enhancing (PRIME) technology

- Next-gen cells would secrete cytokines IL-7 and CCL19
- Improve proliferation / trafficking of SPEAR T-cells & patient's own T-cells into tumors



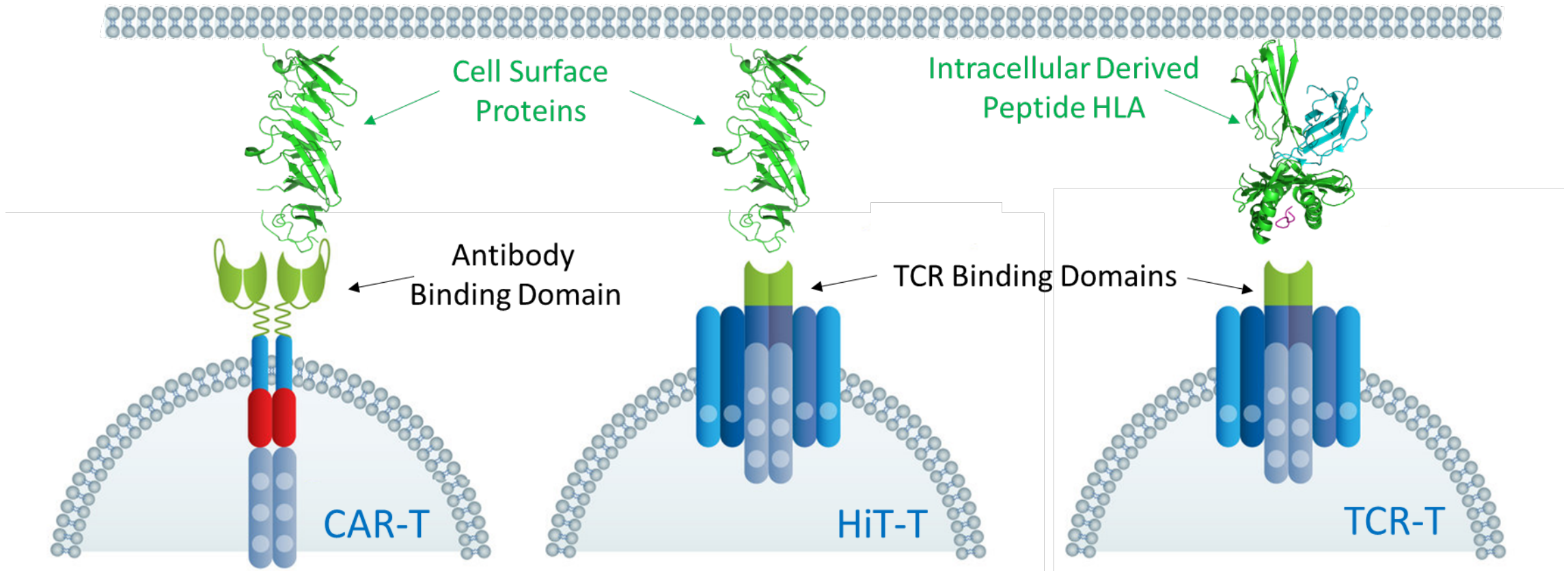
Secreted & transmembrane immunomodulatory proteins (SIP™ and TIP™)

- Engage further rapid and flexible immunomodulatory mechanisms
- Enable the development of next-gen SPEAR T-cells with enhanced antitumor potential

Novel Platform Technology: HLA-independent TCRs (HiTs)

Natural TCRs that bind directly to cell surface protein targets

Tumor cell



- Unique platform for identifying HiTs



Milestones and financial guidance



Total liquidity of ~\$196 million*



Funded into 2H 2021

Catalysts in 2020 and beyond

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Back-ups

Allogeneic platform features

Flexible and scalable

Proliferation

- Theoretically indefinite capacity to proliferate in pluripotent state
- iPSC can be banked
- Cells have different proliferative capacity at different developmental stages

Genetic Manipulation

- Amenable to multiple editing technologies
- Repeated rounds of edits can be used to overcome vector capacity limitations
- Ability to screen iPSC bank for editing fidelity and genetic stability

Differentiation

- Can differentiate into any cell type
- Cells can likely be banked at different stages

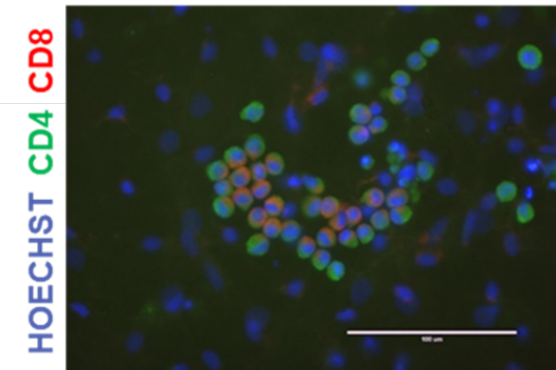
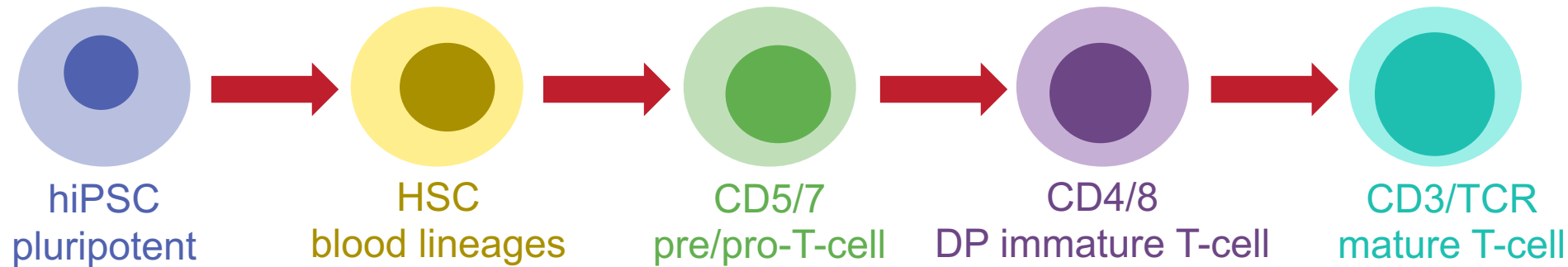
Cell Phenotype

- Younger phenotype
- Flexible/tuneable phenotype - edits and changes to differentiation conditions cause changes in resulting phenotype

We have made off-the-shelf T-cell therapies a reality

T-cells derived from stem cells can kill MAGE-A4⁺ cancer targets in vitro

- hiPSCs are able to differentiate through multiple precursor stages into functional T-cells that can kill cancer targets in vitro (ASGCT 2020)
- Key process features
 - hiPSC-directed differentiation without murine stroma
 - Enabling scale-up and GMP manufacture of edited off-the-shelf lines



iPSC cells differentiated into T cells, with T-cell markers highlighted (CD4, CD8)

Agreement with Astellas to co-develop / co-commercialize stem-cell derived allogeneic T-Cell therapies

Includes both TCR and CAR-T

- Co-development and co-commercialization of up to three T-cell therapies*
 - Astellas will fund research and co-development through completion of Phase 1
 - After Phase 1, companies may agree to progress with co-development and co-commercialization, either company can opt out
- Leverages Astellas' adeno-associated virus (AAV) gene and HLA editing
- Leverages Adaptimmune's stem-cell derived allogeneic T-cell platform
- Adaptimmune may receive up to **\$900 million**:
 - An **upfront payment of \$50 million**
 - Up to \$148 million per cell therapy upon achieving certain clinical and regulatory milestones
 - Up to \$110 million based on sales milestones
- In addition, Adaptimmune will receive:
 - Research funding of up to \$7.5 million per year
 - Tiered royalties on net sales in the mid-single to mid-teen digits

