Immatics Corporate Presentation

June 30, 2022

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Building a Leading TCR Therapeutics Company

Two Clinical-Stage Modalities

Pipeline of TCR-T and TCR Bispecific product candidates in clinical & preclinical development

Clinical PoC for Cell Therapy

Objective responses across multiple solid tumors in early TCR-T clinical development

Differentiated Platforms

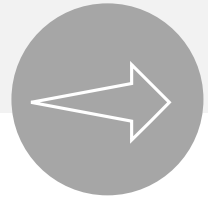
Unique technologies to identify true cancer targets and right TCRs

Therapeutic Opportunity

Potential for addressing large patient populations with high prevalence targets in solid tumors

Strategic Partnerships

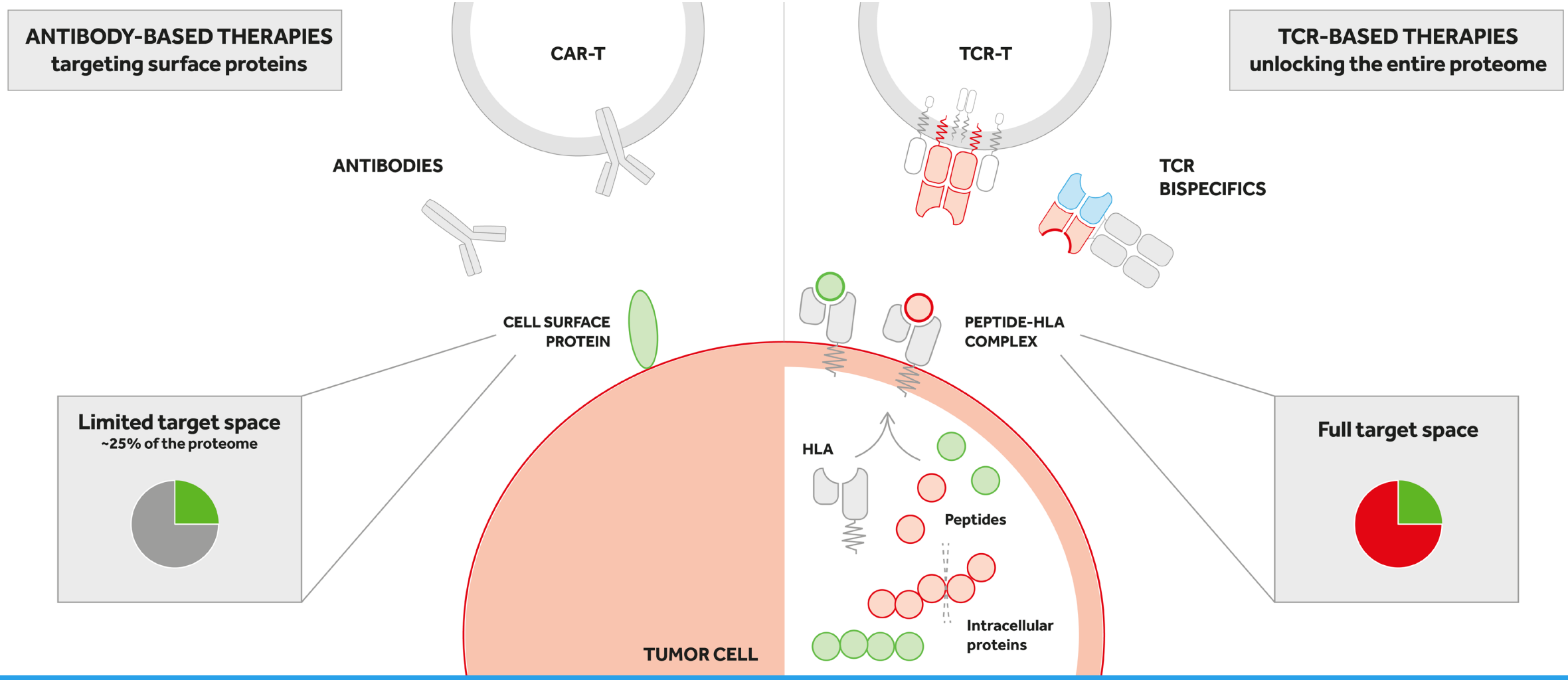
World-leading industry players with synergistic expertise



Solid Cash Runway

To reach next value inflections points across our portfolio

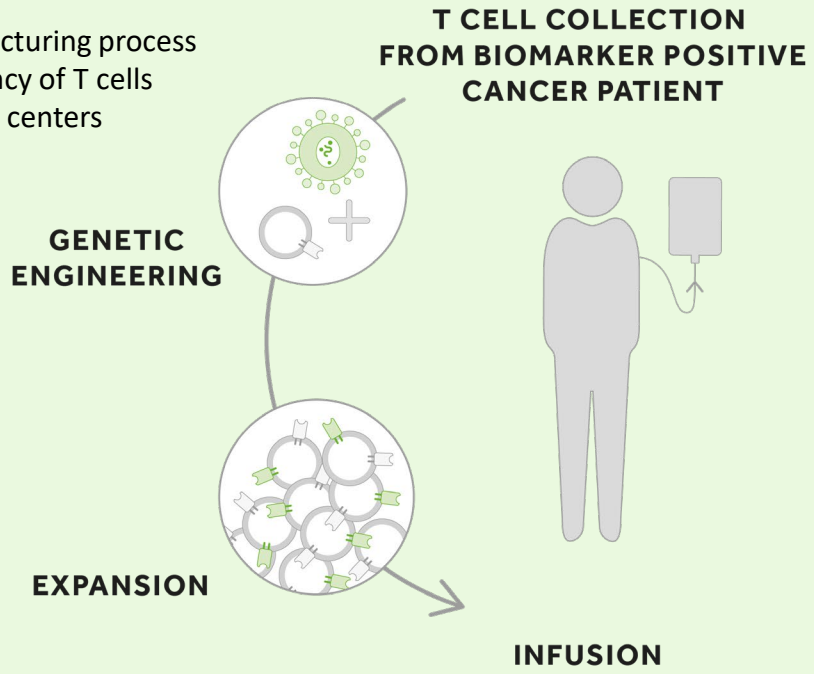
Our TCR-based Approaches Leverage the Full Target Space beyond the Cancer Cell Surface



Two Distinct TCR-based Therapeutic Modalities in Clinical Development

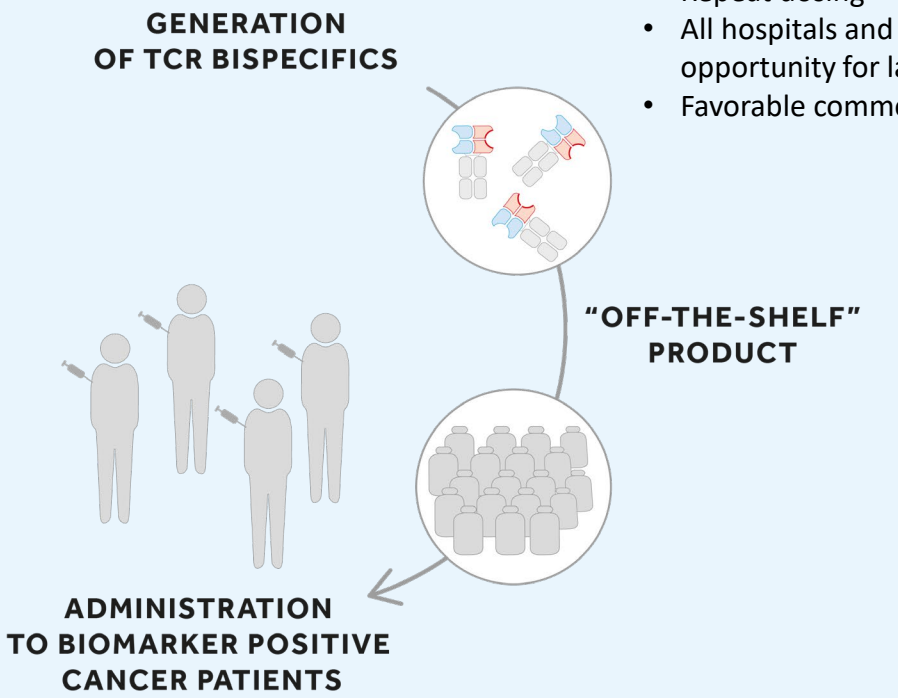
Autologous TCR-T (ACTengine®)

- Strong clinical activity in patients with high tumor burden[1]
- Single dose[2]
- Proprietary manufacturing process for enhanced potency of T cells
- Specialized medical centers



TCR Bispecifics (TCER®)

- Off-the-shelf biologic for immediate treatment
- Repeat dosing
- All hospitals and out-patient, opportunity for larger patient reach
- Favorable commercial characteristics

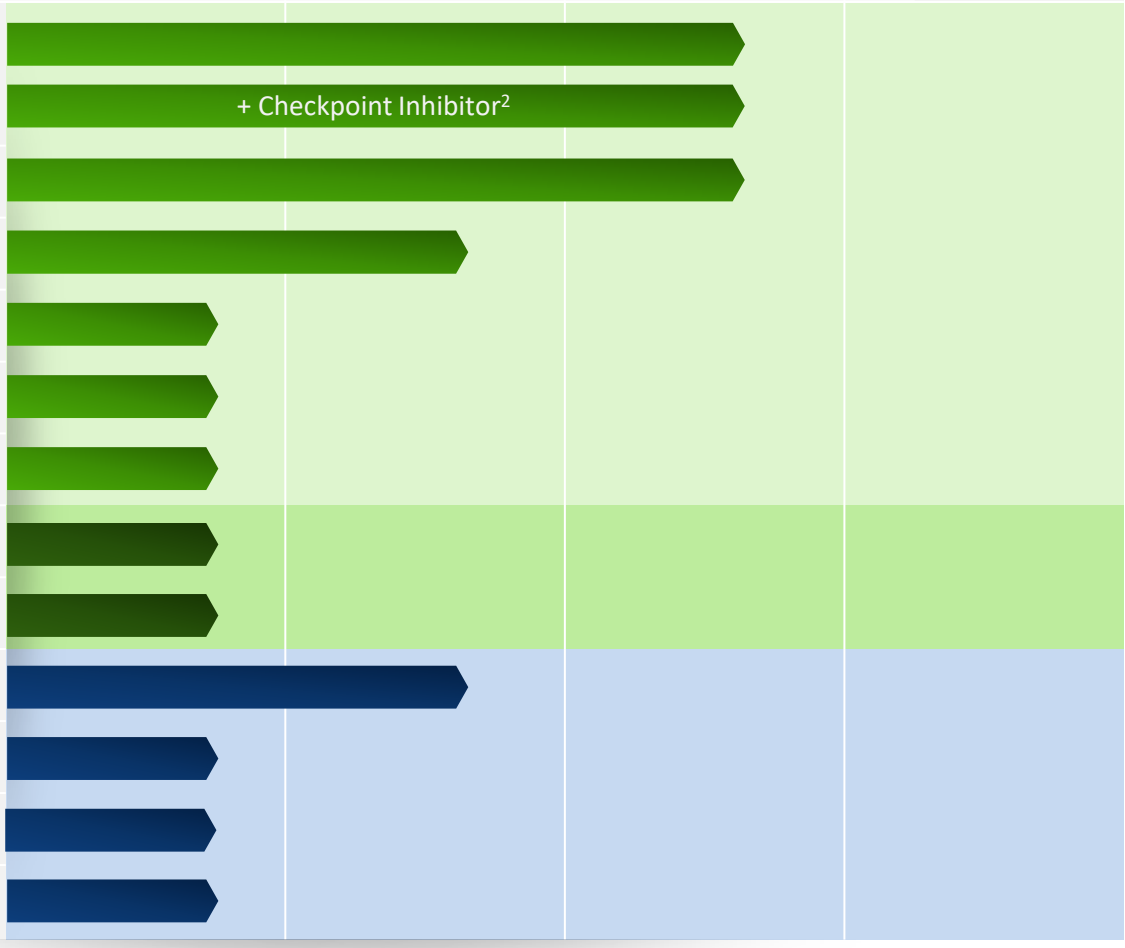


Differentiated positioning of ACTengine® vs. TCER® based on patient population, medical need and geographical reach

[1] Interim dose escalation data from the IMA203 Phase 1a trial with an objective response rate of 50% (8/16) across several solid tumor indications; [2] Repeat dosing without re-manufacturing possible

Our Pipeline of TCR-based Adoptive Cell Therapies and Bispecifics

Modality	Product Candidate	Target	
ACTengine® Autologous ACT	IMA203	PRAME	immatics
	IMA203CD8	PRAME	immatics
	IMA201	MAGEA4/8	immatics
	IMA204	COL6A3	immatics
Autologous ACT	4 programs	Undisclosed	Bristol Myers Squibb
	2 programs	Undisclosed	GSK
ACTallo® Allogeneic ACT γδ T cells	IMA30x	Undisclosed	immatics
	2 programs	Undisclosed	Bristol Myers Squibb
TCER® Bispecifics	IMA401	MAGEA4/8	Bristol Myers Squibb
	IMA402	PRAME	immatics
	IMA40x	Undisclosed	immatics
Bispecifics	3 programs	Undisclosed	Genmab



[1] Phase 1a: Dose escalation, Phase 1b: Dose expansion; [2] Opdivo® (nivolumab): programmed death-1 (PD-1) immune checkpoint inhibitor

Strategic Collaborations

Synergistic Expertise that Can Foster Transformative Innovations for ACT and Bispecifics

2018 — Genmab

Research collaboration
to develop bispecific immunotherapies
3 Immatics targets
$54 M upfront
Co-promotion option

2019 — Bristol Myers Squibb™

Research collaboration
to develop TCR-T therapies
4 Immatics targets (3 in 2019 + 1 in 2022)
$75 M (2019) + $20 M (2022) upfront;
Opt-in rights for BMS
Co-development/Co-fund option

2020 — GSK

Research collaboration
to develop TCR-T therapies
2 Immatics targets
$50 M upfront
Co-development option

2021 — Bristol Myers Squibb™

Clinical co-development collaboration
to develop Immatics' TCR Bispecific program TCER® IMA401
$150 M upfront
Co-promotion option in the US

2022 — Bristol Myers Squibb™

Research collaboration
to develop off-the-shelf allogeneic γδ-based TCR-T/ CAR-T programs
$60 M upfront

Each of our 12 partnered programs may be eligible for
- >$500 million aggregated milestone payments
- Tiered royalties

Broadening the clinical framework beyond our pipeline

Immatics and Bristol Myers Squibb – New Allogeneic Multi-program Collaboration

Leveraging Complementary Technologies & Capabilities for the Benefit of Cancer Patients

Immatics

Innovative γδ-derived allogeneic cell therapy platform ACTallo®

State of the art gene editing & manufacturing

Activities for initial 2 BMS programs: Preclinical development

Off-the-shelf allogeneic TCR-T/CAR-T therapies for patients with solid cancers

- Initial 2 BMS programs
- Up to 4 additional BMS programs
  (TCRs developed in the context of the autologous TCR-T collaboration[1] might feed into allogeneic TCR-T programs)
- Up to 4 Immatics programs

Bristol Myers Squibb

Complementary next-gen technologies to potentiate anti-tumor activity

Expertise in oncology drug development and commercialization

Activities for initial 2 BMS programs: Clinical development and commercialization

[1] Exclusive options to 3 Immatics TCR-T targets in 2019, expansion in 2022 by exclusive option to 1 additional Immatics TCR-T target

Potential for Large Patient Populations across Multiple Solid Cancers

	IMA201 / IMA401 MAGEA4/8	IMA203 / IMA402 PRAME	IMA204 COL6A3 exon 6
Selected solid cancer indications with significant target prevalence[1]	Sarcoma Subtypes – up to 80% Squamous NSCLC – 50% HNSCC – 35% Bladder Carcinoma – 30% Esophageal Carcinoma – 25% Uterine Carcinosarcoma – 25% Ovarian Carcinoma – 20% Melanoma – 20%	Uterine Carcinoma – 100% Sarcoma Subtypes – up to 100% Melanoma – 95% Uveal Melanoma – 80%[2] Ovarian Carcinoma – 80% Squamous NSCLC – 65% Kidney Carcinoma – up to 45% Cholangiocarcinoma – 35% Adeno NSCLC – 25% Breast Carcinoma– 25% HNSCC – 25% Esophageal Carcinoma – 20% HCC – 20% Bladder Carcinoma – 20%	Pancreatic Carcinoma – 80% Breast Carcinoma – 75% Stomach Carcinoma – 65% Sarcoma – 65% Esophageal Carcinoma – 60% Squamous NSCLC– 55% Adeno NSCLC– 55% HNSCC – 55% Uterine Carcinosarcoma – 55% Colorectal Carcinoma – 45% Mesothelioma – 45% Cholangiocarcinoma – 40% Ovarian Carcinoma – 40% Melanoma – 35% Bladder Carcinoma – 35%

ACTengine® and TCER® targets demonstrate high expression in multiple solid cancers

[1] Solid cancer indications with 20% or more target expression, Target prevalence for selected cancer indications based on mRNA expression (TCGA and Immatics inhouse data);
[2] Based on metastatic uveal melanoma patients screened in IMA203 study (N=12);

ACTengine® IMA203 – TCR-T Targeting PRAME

ACTengine® IMA203 – TCR-T Targeting PRAME

Broadly Expressed Target on Multiple Solid Cancers Combined with Highly Specific TCR

TARGET

HLA-A*02-presented peptide derived from **PRAME**

Naturally and specifically presented on tumors at high target density[1]:
100-1,000 copies/cell

Identified and validated by XPRESIDENT® quant. mass spectrometry platform

TCR

High-affinity, specific TCR targeting PRAME

Pairing-enhanced, engineered TCR to avoid mispairing

High functional avidity[2]:
EC50 ~5 ng/ml

Identified and characterized by XCEPTOR® TCR discovery and engineering platform

CLINICAL DATA

N=18 pts treated in phase 1 dose escalation cohort

Manageable tolerability profile; no additional DLTs[3] & no CRS/ICANS ≥ grade 3

16 patients with at least one post treatment tumor assessment

Objective responses in 50% (8/16) of patients, thereof 62% (8/13) of responses above DL1; all doses still below 1 bn cells

PATIENT POPULATION[4]

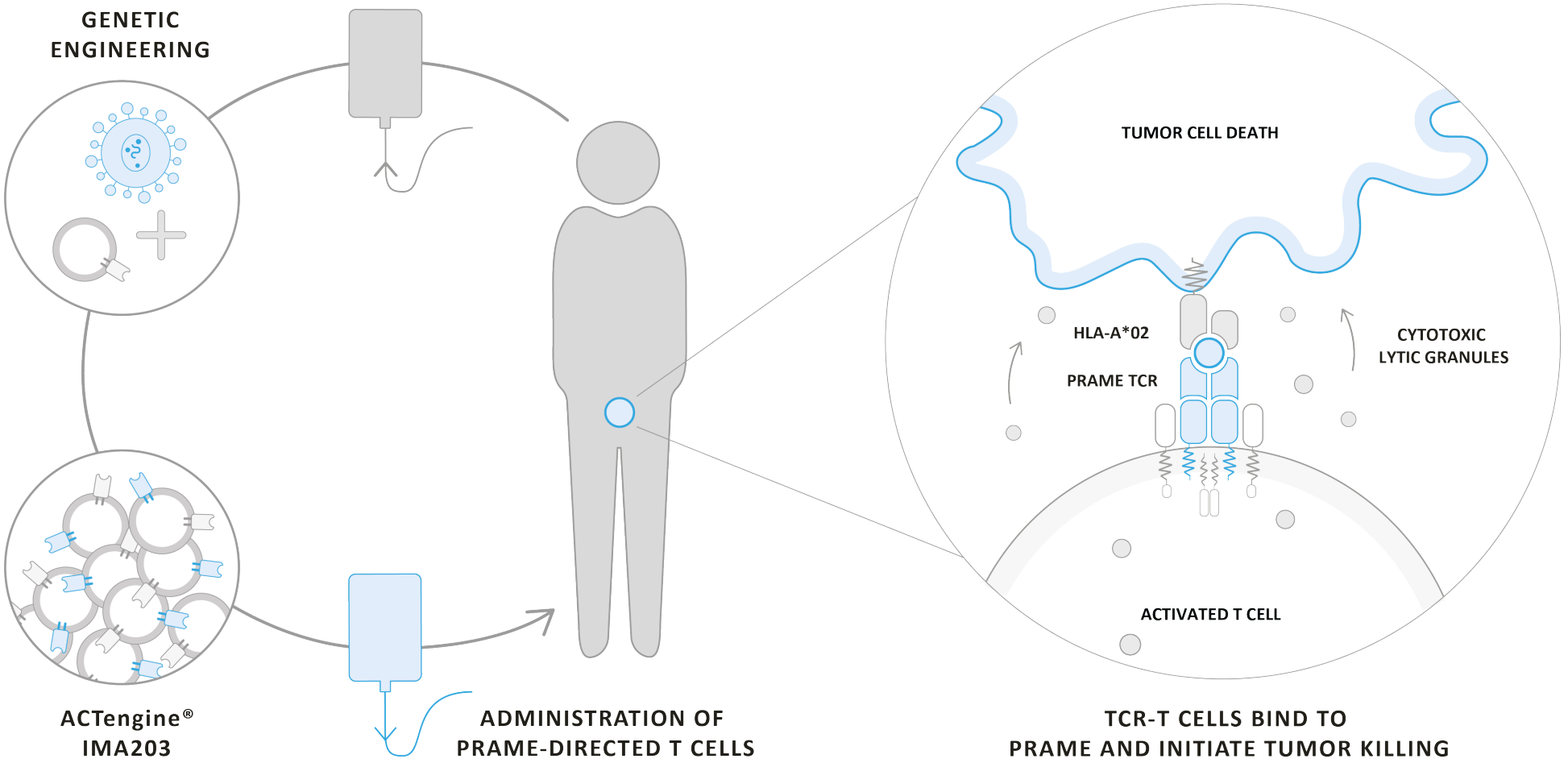
Uterine Carcinoma – 100%
Sarcoma Subtypes – up to 100%
Melanoma – 95%
Uveal Melanoma – 80%[5]
Ovarian Carcinoma – 80%
Squamous NSCLC – 65%
Kidney Carcinoma – up to 45%
Cholangiocarcinoma – 35%
Adeno NSCLC – 25%
Breast Carcinoma– 25%
HNSCC – 25%
Esophageal Carcinoma – 20%
HCC – 20%
Bladder Carcinoma – 20%

Data cut-off – 05-Oct-2021

[1] Target density: peptide copy number per tumor cell, approximate range representing the majority of tumor samples analyzed; [2] Functional avidity: EC50 half maximal effective concentration; [3] One DLT in DL2 previously reported in March 2021, fully resolved; [4] Solid cancer indications with 20% or more target expression, Target prevalence for selected cancer indications based on mRNA expression (TCGA and Immatics inhouse data); [5] Based on metastatic uveal melanoma patients screened in IMA203 study (N=12)

ACTengine® IMA203 Targeting PRAME – Mechanism of Action

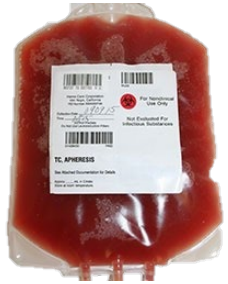
Immatics' Leading TCR-T Approach



Optimized Cell Therapy Products to Enhance T cell Persistence & Efficacy

Current Proprietary Manufacturing Protocol for ACTengine® Product Candidates

Leukapheresis



ACTengine® clinical programs: ~3 weeks

Manufacturing time (~1 week)	QC testing (Full sterility, 2 weeks)

Commercial ACTengine® expected ~2 weeks

Manufacturing time (~1 week)	Expedited QC testing (~1 week)

Infusion-Ready

Proprietary Manufacturing Process, designed to

- ✓ reduce manufacturing process to approx. 1 week[1]
- ✓ shorten vein-to-vein time
- ✓ generate younger T cells with increased proliferative capacity
- ✓ improve engraftment and persistence in patients while utilizing smaller doses

In-house state-of-the-art cGMP Facility[2]

- ✓ Manufacturing by Immatics personnel
- ✓ Maximum capacity: 48 manufacturing runs/month
- ✓ Substantial in-house process development expertise

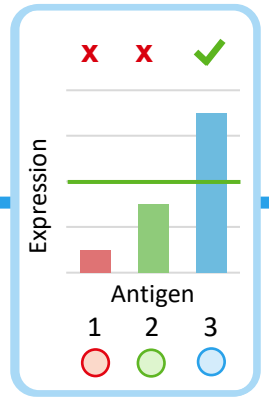
[1] IMA203: 7 days, IMA201: 7-10 days; [2] Exclusive access through collaboration with UT Health, Houston, TX

ACTengine® IMA203 – Patient Flow

Screening & Manufacturing Phase | **Treatment & Observation Phase** | **Long Term Follow-up**

Safety and efficacy monitoring for 12 months

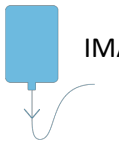
HLA-A*02 Testing
Blood sample;
Central lab



Target Profiling
Fresh Tumor Biopsy;
IMADetect®

Leuka-pheresis

ACTengine® Manufacturing
by Immatics



Lymphodepletion
30 mg/m² Fludarabine[1] and
500 mg/m² Cyclophosphamide
for 4 days

Infusion of ACTengine® T cell Product

Low dose IL-2
1m IU daily days 1-5 and
twice daily days 6-10*

IMA203

* IL-2 dose reduction from twice daily to daily for the first 5 days and dosing duration from 14 to 10 days introduced prior to treatment of first patients on dose level 3;
[1] Dose reduction of Fludarabine (from 40mg/m² to 30mg/m²) was introduced prior to treatment of the first patient on dose level 3

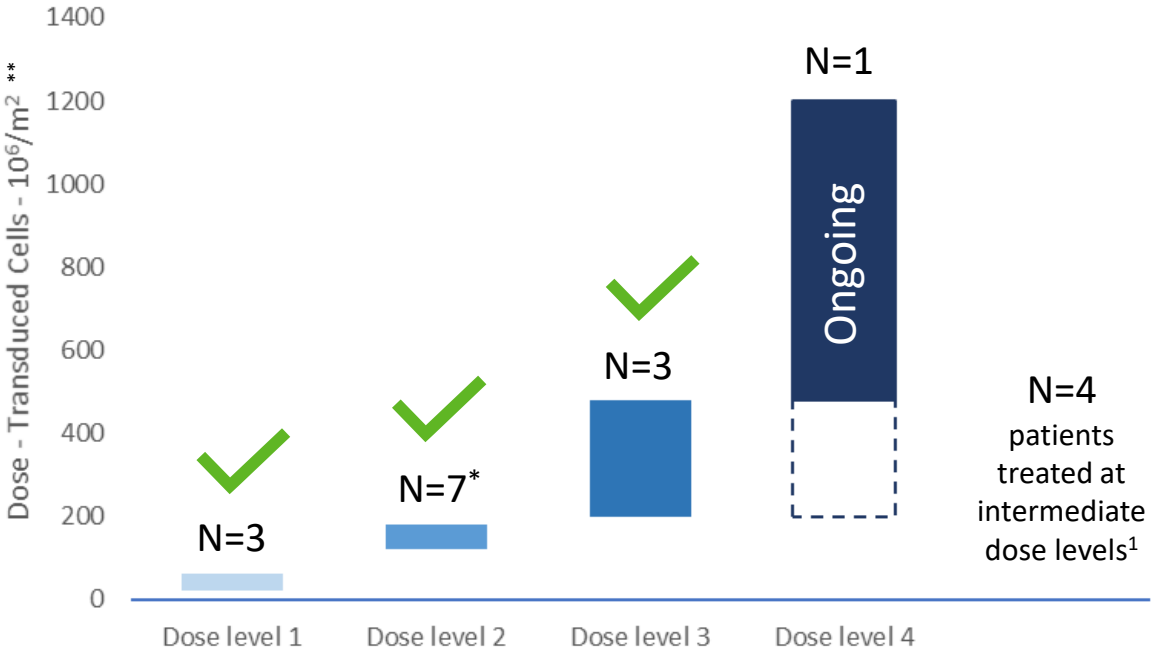
ACTengine® IMA203 – Key Objectives & Trial Design

Presented at SITC Conference as Late-Breaking Presentation (Cut-off October 05, 2021)

Key Study Objectives

- **Primary: Safety**
  Investigation of Adverse Events,
  Determination of a recommended Phase 2 dose
- **Secondary: Biological and Clinical Activity**
  T cell engraftment and persistence
  Objective responses as per RECIST1.1
  Duration of response
- **Exploratory**
  Tumor Infiltration

Trial Design & Recruitment Status



18 patients[1] infused with PRAME-directed T cells at 5 clinical sites

Data cut-off – 05-Oct-2021

[1] Enrichment cohorts EC1 & EC2: patients infused with intermediate doses enabling infusion of patients with medical need during dose escalation observation periods, or in case of lower production yields; * One patient infused at the same dose level as part of the enrichment cohort; **Dose is shown as transduced viable CD8 T cells per m^2 total body surface area

ACTengine® IMA203 – Safety Profile

Manageable & Transient Treatment-emergent Adverse Events – No ≥ Grade 3 CRS or ICANS

TEAEs by maximum severity (N=19)[1]

Adverse event	All grades No.	All grades %	≥ Grade 3 No.	≥ Grade 3 %
Patients with any adverse event	19	100.0	19	100.0
Adverse Events of Special interest				
Cytokine release syndrome	17	89.5	0	0.0
ICANS[2]	4	21.1	0	0.0
Blood and lymphatic system disorders				
Neutropenia*	16	84.2	15	78.9
Anaemia	16	84.2	9	47.4
Thrombocytopenia	15	78.9	7	36.8
Lymphopenia*	14	73.7	14	73.7
Leukopenia*	12	63.2	11	57.9
Cytopenia	1	5.3	1	5.3
Infections and infestations				
Enterococcal infection	1	5.3	1	5.3
COVID-19	1	5.3	1	5.3
Appendicitis	1	5.3	1	5.3
Sepsis[3]	1	5.3	1	5.3
Respiratory, thoracic and mediastinal disorders				
Hypoxia	2	10.5	1	5.3
Pleural effusion	2	10.5	1	5.3
Bronchial obstruction	1	5.3	1	5.3
Metabolism and nutrition disorders				
Hyponatraemia	7	36.8	1	5.3
Hypokalaemia	5	26.3	1	5.3
Decreased appetite	3	15.8	0	0.0

Adverse event	All grades No.	All grades %	≥ Grade 3 No.	≥ Grade 3 %
table continued…				
Cardiac or vascular disorders				
Hypertension	3	15.8	2	10.5
Atrial fibrillation	2	10.5	1[4]	5.3
General disorders and administration site conditions				
Fatigue	7	36.8	1	5.3
Pyrexia	5	26.3	0	0.0
Oedema peripheral	3	15.8	0	0.0
Gastrointestinal disorders				
Nausea	12	63.2	0	0.0
Vomiting	7	36.8	0	0.0
Diarrhoea	7	36.8	0	0.0
Constipation	6	31.6	0	0.0
Investigations				
Aspartate aminotransferase increased	5	26.3	0	0.0
Alanine aminotransferase increased	4	21.1	0	0.0
Blood creatinine increased	4	21.1	0	0.0
Other				
Rash	5	26.3	0	0.0
Myalgia	4	21.1	0	0.0
Arthralgia	3	15.8	0	0.0
Alopecia	3	15.8	0	0.0
Rash maculo-papular	2	10.5	1	5.3
Orchitis	1	5.3	1	5.3
Contrast media allergy	1	5.3	1	5.3

CRS/ICANS: No ≥ Grade 3 CRS or ICANS observed so far

Most Adverse Events were associated with lymphodepletion

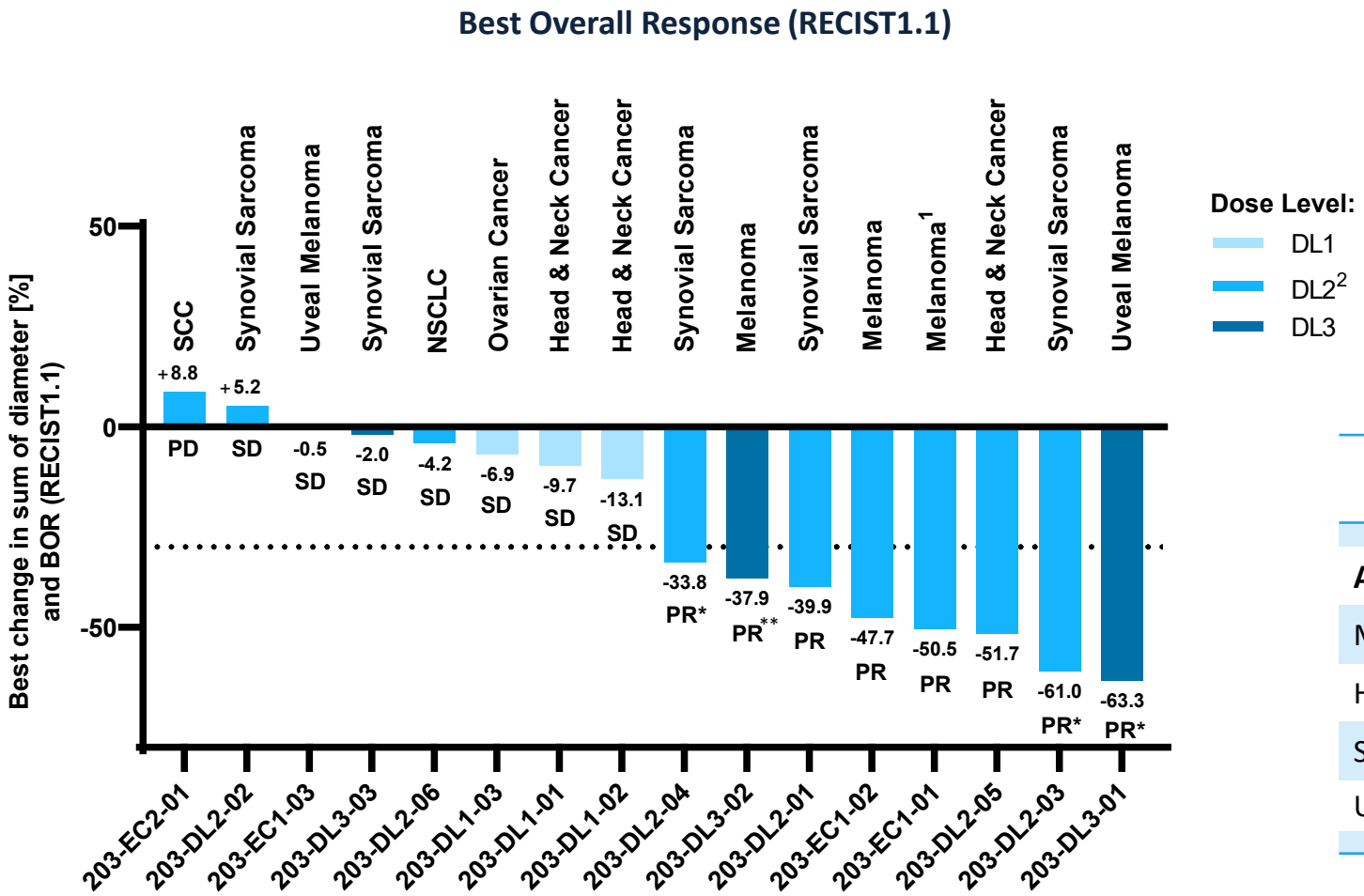
DLT: Transient, Grade 3 atrial fibrillation Onset on day 5 post infusion that resolved within 48h DLT triggered expansion of DL2

[1] All treatment-emergent adverse events (TEAEs) with grade 1-2 occurring in at least 3 patients (incidence ≥15.8%) and additionally all events with grade 3-5 regardless of relatedness to study treatment are presented. Data source: clinical database. Adverse events were coded using the Medical Dictionary for Regulatory Activities. Grades were determined according to National Cancer Institute Common Terminology Criteria of Adverse Events (CTCAE), version 5.0. Grades for Cytokine release syndrome and ICANS were determined according to CARTOX criteria (Neelapu *et al.*, 2018). Patients are counted only once per adverse event and severity classification; [2] ICANS: Immune effector cell-associated neurotoxicity syndrome; [3] Patient died from sepsis of unknown origin and did not receive IMA203 T cells; [4] DLT: Dose limiting toxicity; *100% of patients experienced transient cytopenias ≥ Grade 3 (CTCAE v5.0)

Data cut-off – 05-Oct-2021

ACTengine® IMA203 – Change in Target Lesions

Objective Responses across Multiple Tumor Types at Doses below 1 billion Transduced Cells



Preliminary Objective Response Rates (RECIST1.1., confirmed and unconfirmed)

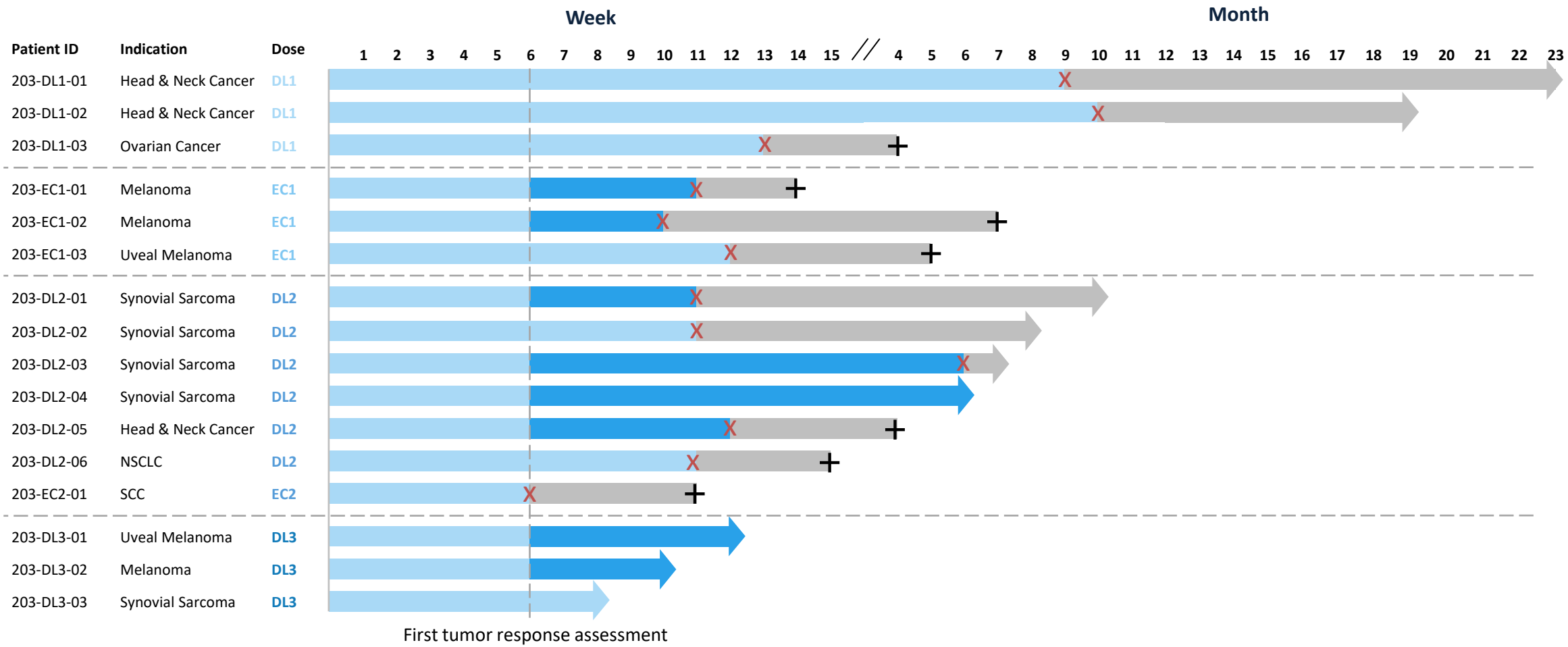
	All doses	Dosed above DL1
All comers	**8/16 (50%)**	**8/13 (62%)**
Melanoma	3/3 (100%)	3/3 (100%)
Head & Neck Cancer	1/3 (33%)	1/1 (100%)
Synovial Sarcoma	3/5 (60%)	3/5 (60%)
Uveal Melanoma	1/2 (50%)	1/2 (50%)

Data cut-off – 05-Oct-2021

[1] RECIST1.1 response at the timepoint of maximum change of target lesions (week 12): PD due to new lesions (leptomeningeal disease) at week 12
[2] Patients dosed with DL2, EC1 and EC2; * Confirmed at subsequent scan; ** Confirmation pending as of data cut-off

ACTengine® IMA203 – Response Over Time

Objective Responses across Multiple Tumor Types at Doses below 1 billion Transduced Cells



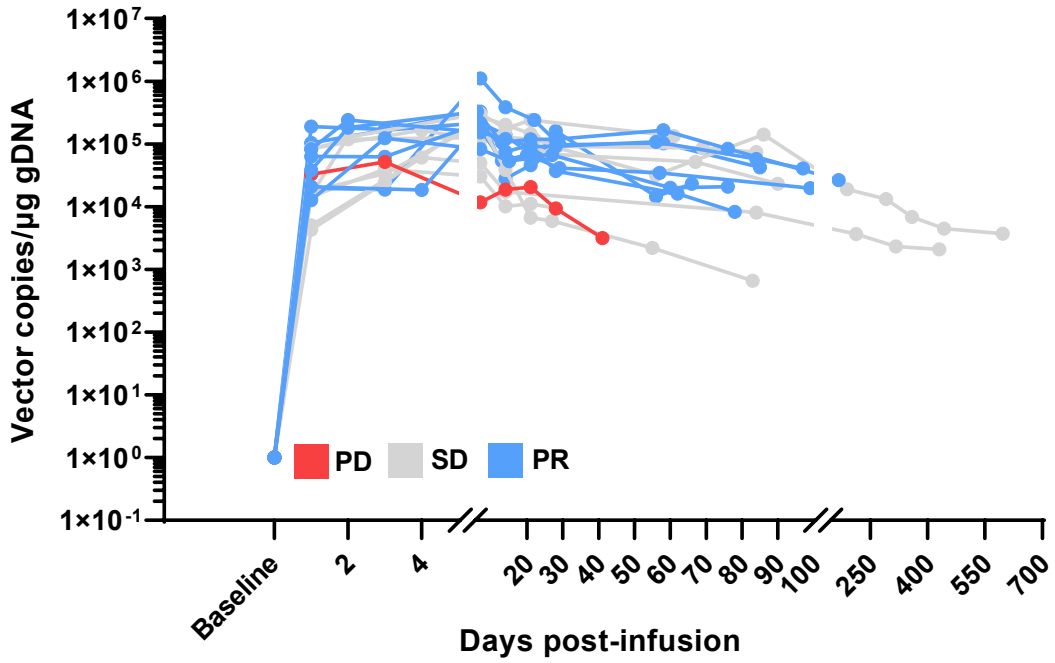
According to RECIST1.1

Data cut-off – 05-Oct-2021

ACTengine® IMA203 – Engraftment, Persistence & Tumor Infiltration

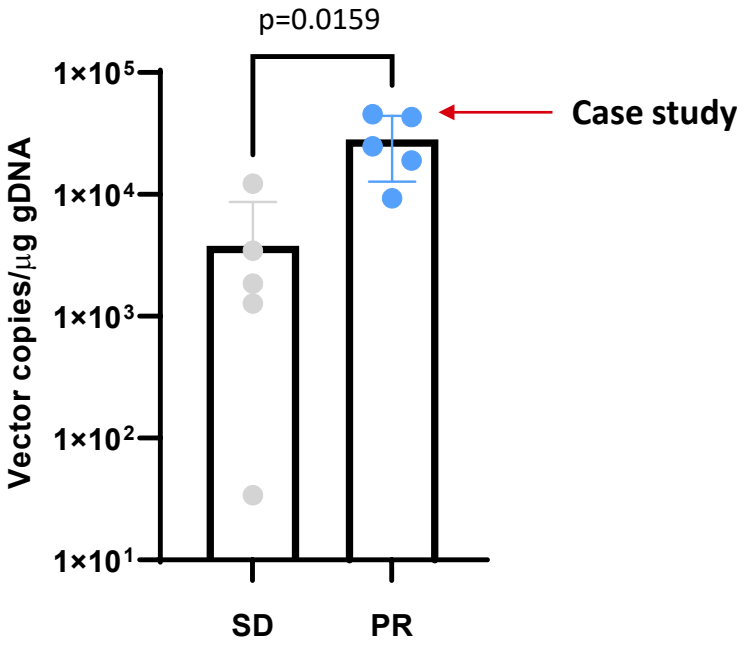
Clinical Responses Consistent with Biological Data

T cell Engraftment & Persistence



High T cell engraftment and persistence with trend for association of peak vector copies with clinical response[1]

Tumor Infiltration post Infusion[2]



High T cell infiltration observed through serial biopsies associated with clinical response[3]

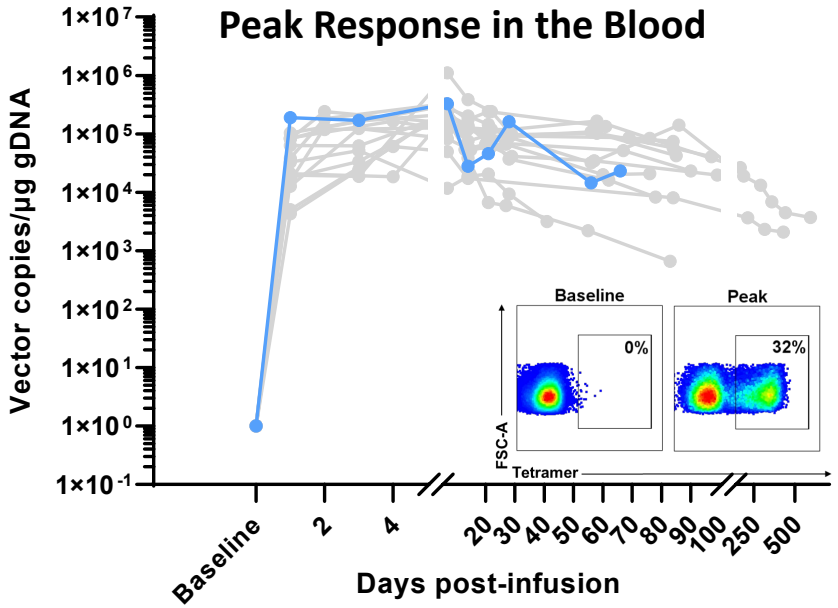
Data cut-off – 05-Oct-2021

[1] Mann-Whitney U test, p=0.065; [2] Post infusion biopsies at week 6 (except one patient with SD at week 3); [3] Mann-Whitney U test, p=0.0159

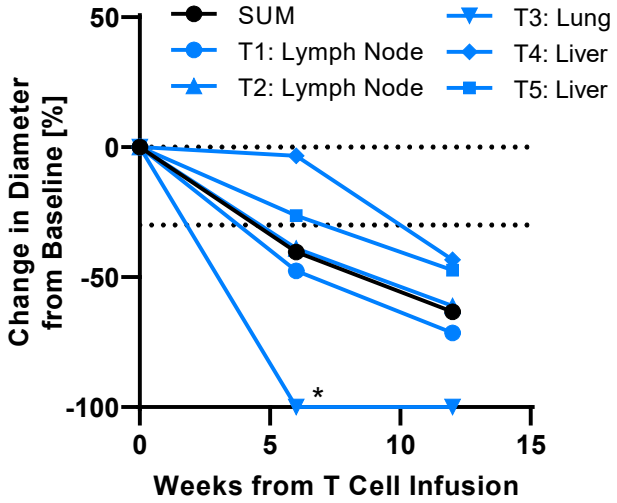
ACTengine® IMA203 – Case Study Patient IMA203-DL3-01

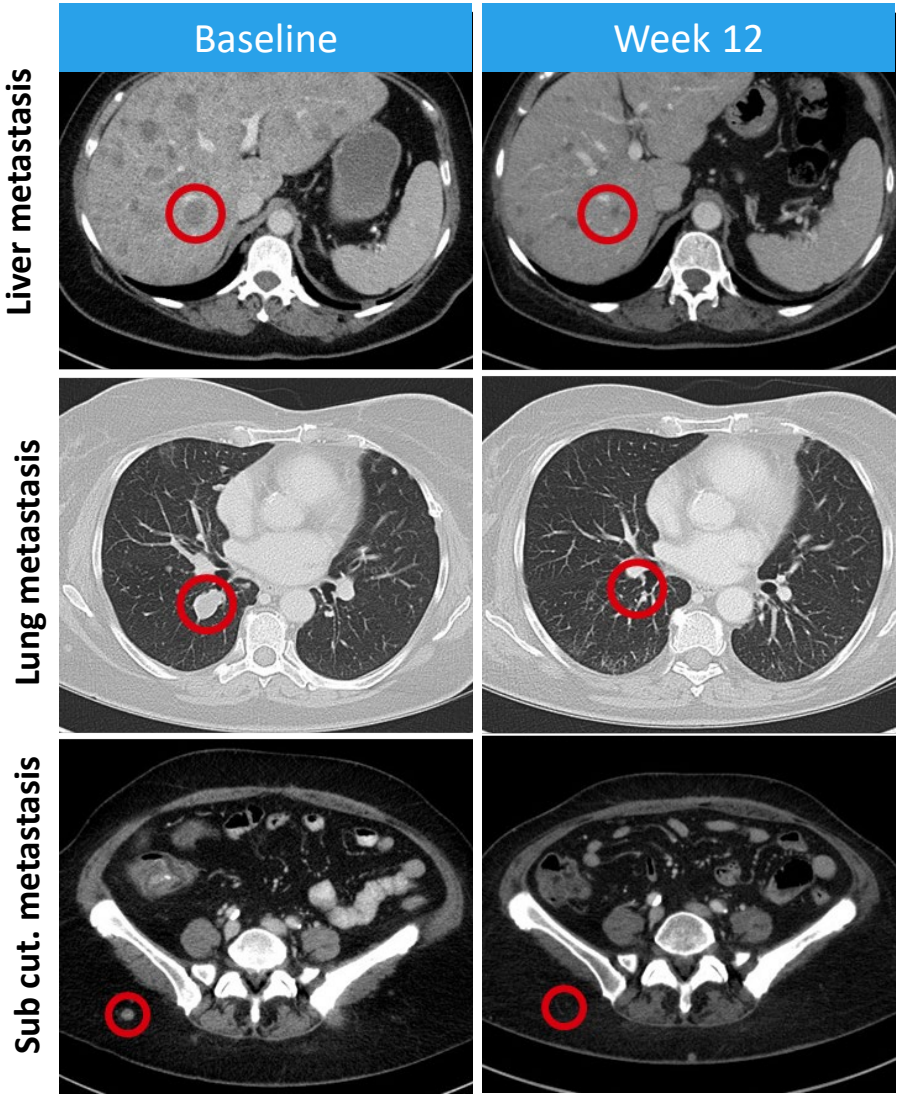
Confirmed Partial Response with Deepening Tumor Regression in Multiple Lesions

T cell Persistence & Peak Response in the Blood



Change in Target Lesions





- 62-year-old female; metastatic uveal melanoma
- High tumor burden in multiple organs
- Infused at refractory disease after failing 4 prior lines of therapy including 2 lines of CPI[1]
- Patient received total dose of 0.59 billion transduced T cells following lymphodepletion

- **T cell persistence until end of observation & detection in the tumor**
- **All lesions decreased at week 6 - 40% decrease in target lesions response deepened at week 12 to 63% decrease**
- **Best Response (RECIST1.1): PR (confirmed & ongoing)**

[1] Immune checkpoint inhibitor

ACTengine® IMA203 PRAME – Phase 1a Dose Escalation Interim Update

Preliminary Findings after Completion of Dose Level 3

Objective responses observed across multiple tumor types at dose levels below 1 billion T cells originally presumed to be subtherapeutic

SAFETY

3 Dose levels completed, all below 1 bn cells

0 Additional DLTs[1]

0 Grade ≥3 CRS or ICANS[2]

CLINICAL ACTIVITY

50% ORR[3] across all doses and multiple solid cancers (8/16 patients)

62% ORR[3] at DL2[*]& DL3 (8/13 patients) – all still dosed below 1 bn cells

BIOLOGICAL ACTIVITY

Blood High T cell engraftment and persistence

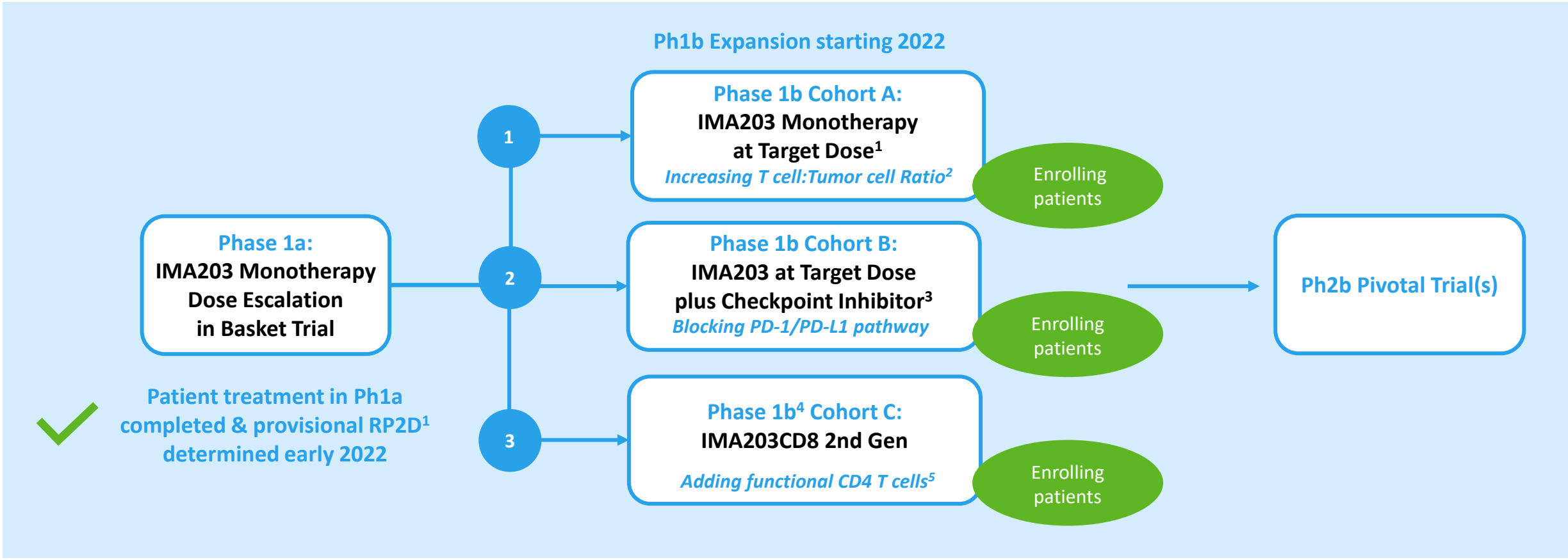
Tumor High T cell infiltration associated with clinical response

Data cut-off – 05-Oct-2021

[1] DLT: dose-limiting toxicity, since March 17, 2021 (reported DLT at DL2); [2] CRS: cytokine release syndrome, ICANS: Immune effector cell-associated neurotoxicity syndrome, both graded by CARTOX criteria (Neelapu *et al.*, 2018); [3] Objective response rate according to RECIST 1.1 including confirmed and unconfirmed partial responses; [*] Includes patients treated at enrichment cohorts EC1 and EC2

Our Plans to Achieve Long-Lasting Responses with TCR-T cells against PRAME

Addressing Relevant Secondary Resistance Mechanisms to Increase Durability of Response



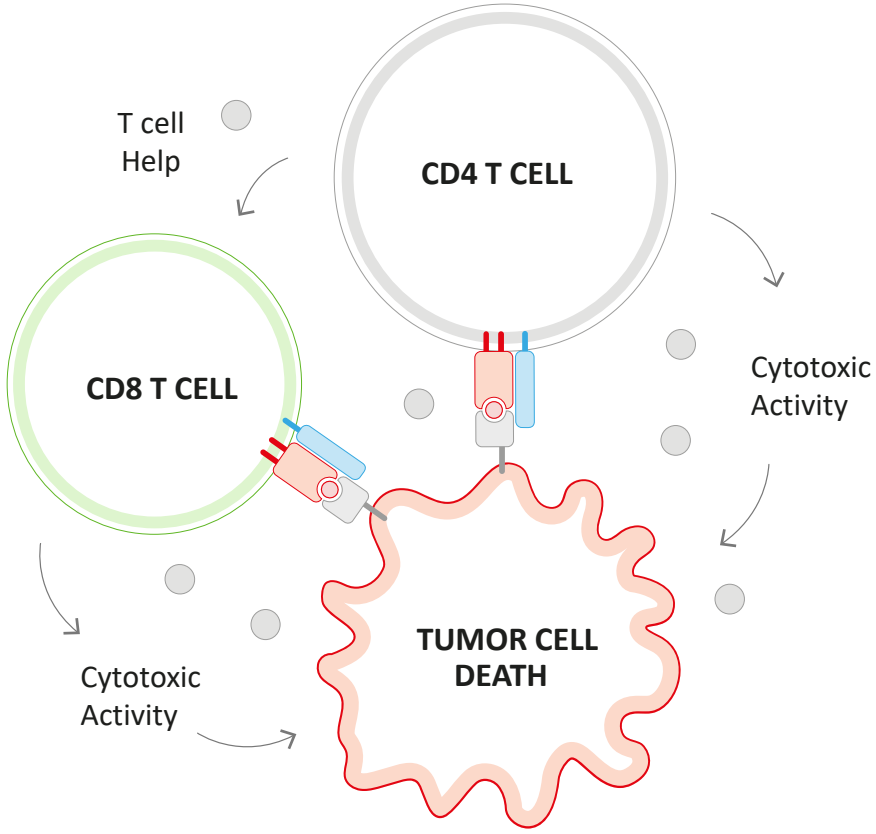
Each expansion cohort is designed to evaluate the observed objective response rate, demonstrate durability of response & provide the basis for entering registration trials

IMA203

[1] Exploration of higher dose (DL5) planned; [2] Demonstrated to be associated with durable response: Locke *et al.* 2020 Blood advances; [3] Opdivo® (nivolumab): programmed death-1 (PD-1) immune checkpoint inhibitor; [4] Treatment of n=3 patients in DL3 prior to patient treatment at provisional RP2D (DL4); [5] Demonstrated to be important for long-term remission: Melenhorst *et al.* 2022 Nature

ACTengine® IMA203CD8 – Next-generation TCR-T

Building on First-Gen IMA203 Success to Further Improve Anti-Tumor Activity



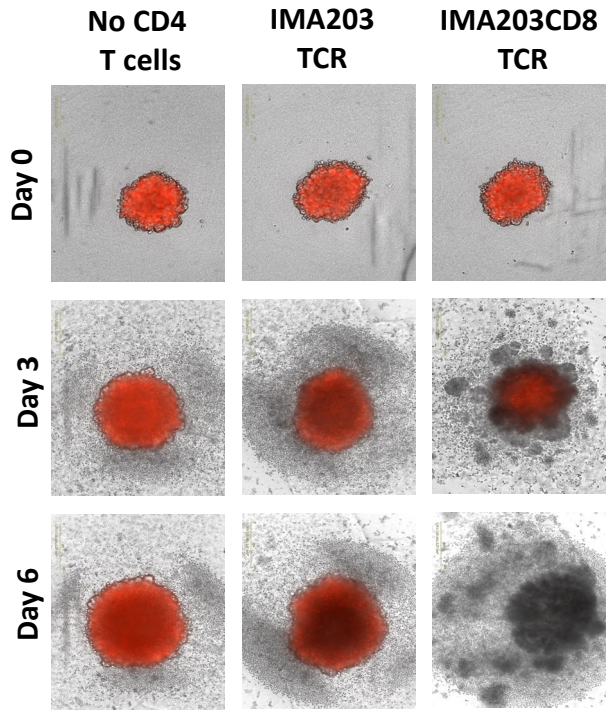
- Engagement of CD4 T cells by CD8 co-transduction reported to boost anti-tumor activity in TCR-T trials
- Recent data from leukaemia patients treated with CAR-T achieving decade-long remissions show that CD4 T cells dominate at the later time points of response[1]
- Functional superiority of the **CD8αβ** construct over multiple other CD8 constructs in preclinical experiments
- Proprietary 4-in-1 lentiviral vector to engineer CD4 and CD8 T cells with the PRAME-specific IMA203 TCR and CD8αβ construct (IMA203CD8)

[1] Melenhorst *et al.* 2022 Nature

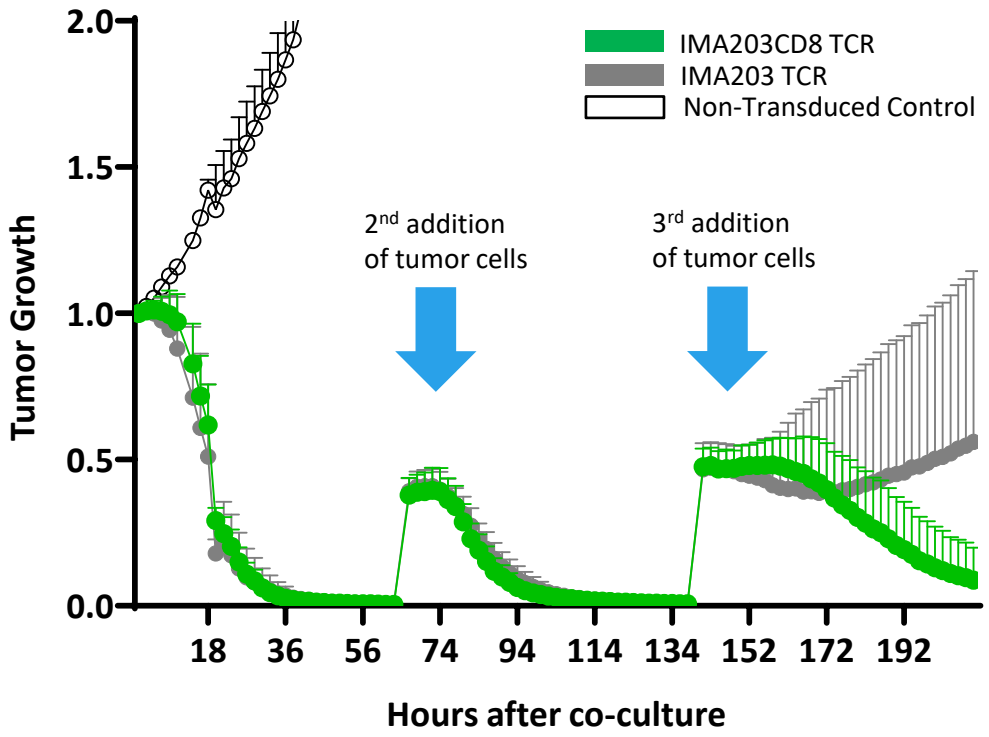
ACTengine® IMA203CD8 – Preclinical Assessment of Anti-Tumor Efficacy

Co-Transduction of CD8 Enhances Anti-Tumor Activity *in Vitro*

3D Spheroid Killing – CD4 T cells



Serial Killing Assay – CD8 & CD4 T cells



Engagement of CD4 T cells may enhance depth and durability of anti-tumor response and clinical outcome of TCR-T in solid cancer patients

ACTengine® IMA201 and IMA204 – TCR-T Targeting MAGEA4/8 and COL6A3

ACTengine® IMA201 Targeting MAGEA4/8

Key Features

TARGET

HLA-A*02-presented peptide derived from **MAGEA4 and/or MAGEA/8**

>5-fold higher peptide copy number per tumor cell than a commonly used MAGEA4 target

Naturally and specifically presented on tumors at high target density[1]:
100-1,000 copies/cell

Identified and validated by XPRESIDENT® quant. mass spectrometry platform

TCR

High-affinity, specific TCR targeting MAGE4/8

High functional avidity[2]:
EC50 ~10 ng/ml

Identified and characterized by XCEPTOR® TCR discovery and engineering platform

CLINICAL DATA

Dose escalation ongoing, target dose level to commence

Too early for assessment of safety or anti-tumor activity

PATIENT POPULATION[3]

Sarcoma Subtypes – up to 80%
Squamous NSCLC – 50%
HNSCC – 35%
Bladder Carcinoma – 30%
Esophageal Carcinoma – 25%
Uterine Carcinosarcoma – 25%
Ovarian Carcinoma – 20%
Melanoma – 20%

Status – 02-June-2022

[1] Target density: peptide copy number per tumor cell, approximate range representing the majority of tumor samples analyzed; [2] Functional avidity: EC50 half maximal effective concentration;
[3] Solid cancer indications with 20% or more target expression, Target prevalence for selected cancer indications based on mRNA expression (TCGA and Immatics inhouse data)

ACTengine® IMA204 First-in-Class TCR-T Targeting Tumor Stroma

Key Features

TARGET

HLA-A*02-presented peptide derived from **COL6A3 exon 6**

Naturally and specifically presented on tumors at high target density[1]: **100-700 copies/cell**

Novel **tumor stroma target** identified and validated by XPRESIDENT® quant. mass spectrometry platform

TCR

High-affinity, specific TCR targeting COL6A3 exon 6

Affinity-maturated, CD8-independent TCR

High functional avidity[2]: **~0.01ng/ml**

Identified and characterized by XCEPTOR® TCR discovery and engineering platform

PRECLINICAL DATA

CD8-independent, next-generation TCR engages both, CD8 and CD4 T cells

In vitro anti-tumor activity against target-positive cell lines in CD8 and CD4 T cells

Complete tumor eradication in *in vivo* mouse models

PATIENT POPULATION[3]

Pancreatic Carcinoma – 80%
Breast Carcinoma – 75%
Stomach Carcinoma – 65%
Sarcoma – 65%
Esophageal Carcinoma – 60%
Squamous NSCLC– 55%
Adeno NSCLC– 55%
HNSCC – 55%
Uterine Carcinosarcoma – 55%
Colorectal Carcinoma – 45%
Mesothelioma – 45%
Cholangiocarcinoma – 40%
Ovarian Carcinoma – 40%
Melanoma – 35%
Bladder Carcinoma – 35%

IMA204 provides a promising therapeutic opportunity for a broad patient population as monotherapy or in combination with TCR-T cells directed against tumor targets

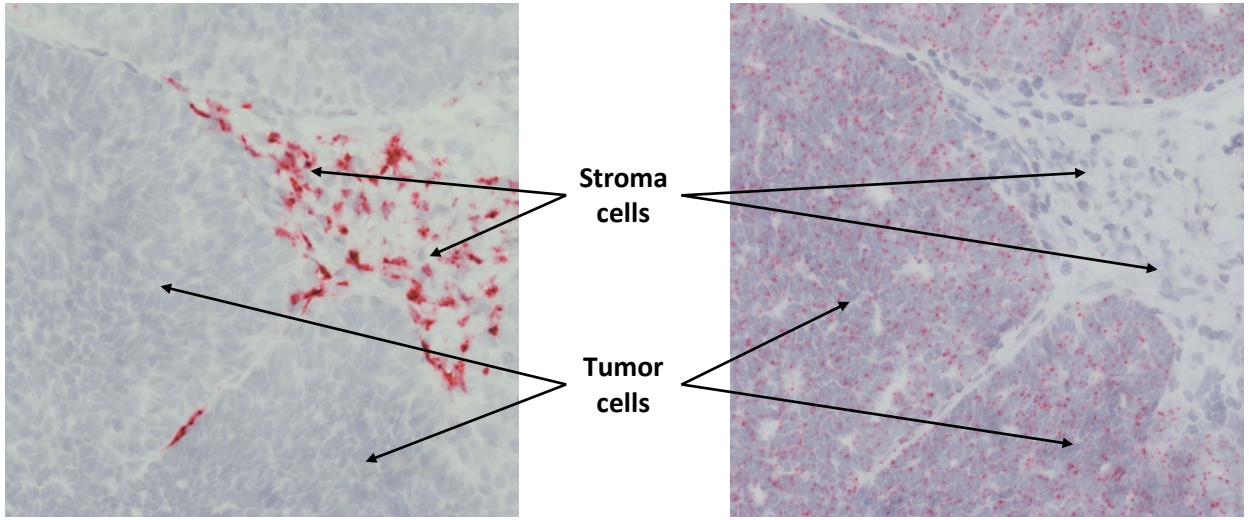
[1] Target density: peptide copy number per tumor cell, approximate range representing the majority of tumor samples analyzed; [2] Functional avidity: EC50 half maximal effective concentration;
[3] Solid cancer indications with 20% or more target expression, Target prevalence for selected cancer indications based on mRNA expression (TCGA and Immatics inhouse data)

ACTengine® IMA204 – High Affinity, CD8-independent TCR

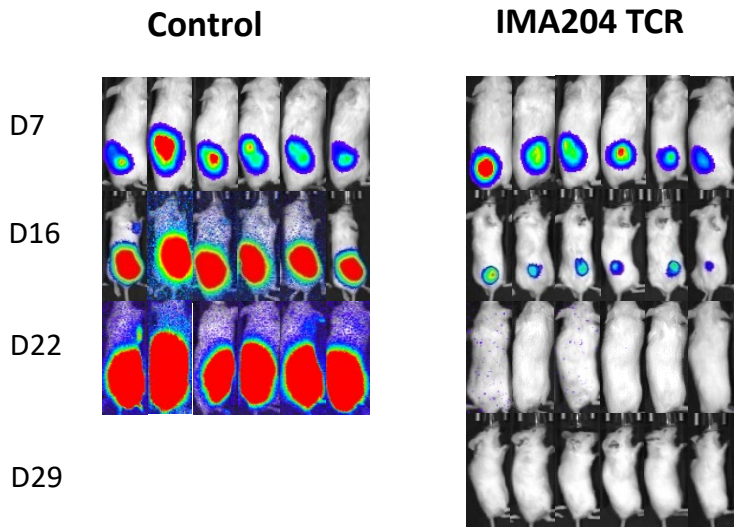
Complete Tumor Eradication *in vitro & in vivo*[1] by Affinity-enhanced IMA204 TCR

Stroma Target (COL6A3 exon 6)
in Ovarian Cancer sample

Example of a Tumor Target
in same Ovarian Cancer sample



COL6A3 exon 6 prevalently expressed at high target density in tumor stroma across many solid cancers



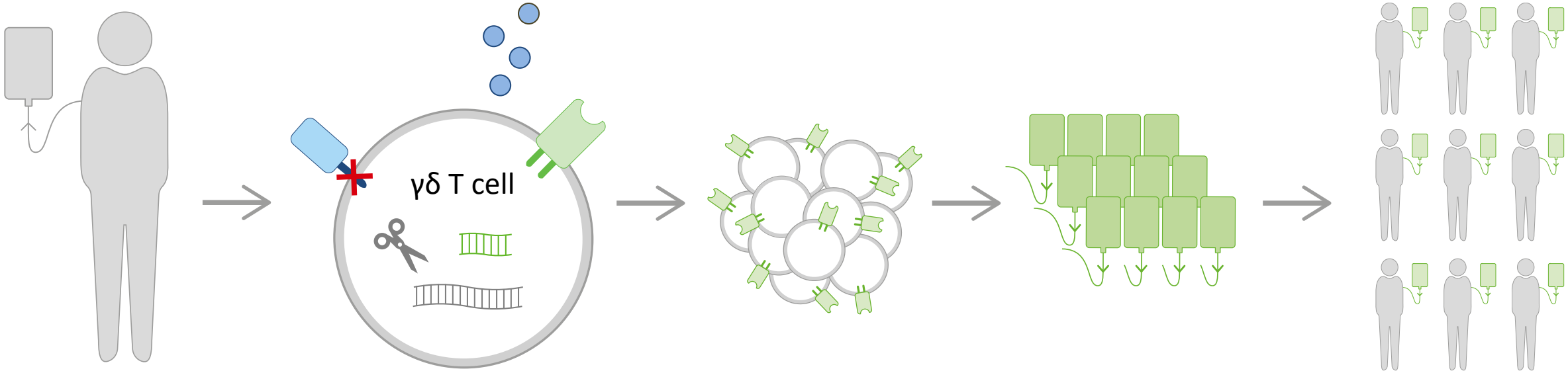
CD8-independent TCR leads to tumor eradication in all mice treated

- Affinity maturated CD8-independent, next-generation TCR engages both CD4 and CD8 T cells without the need of CD8 co-transduction
- IND-enabling studies are nearing completion

[1] *In vivo* data in collaboration with Jim Riley, University of Pennsylvania, control: non-transduced T cells. TCR avidity and specificity data not shown, available in IMA204 presentation on Immatics website.

ACTallo® – Our Next-generation Off-the-shelf TCR-T

ACTallo® – Immatics' Allogeneic Cell Therapy Approach



γδ T cell Collection from Healthy Donor

Cell Engineering (gene editing & enhancements)

Expansion

Off-the-shelf Products

Patient Treatment

- **Off-the-shelf cell therapy**, no need for personalized manufacturing → reduced logistics and time to application
- **Potential for hundreds of doses** from one single donor leukapheresis → lower cost of goods
- **Use of healthy donor material** provides standardized quality and quantity of starting material

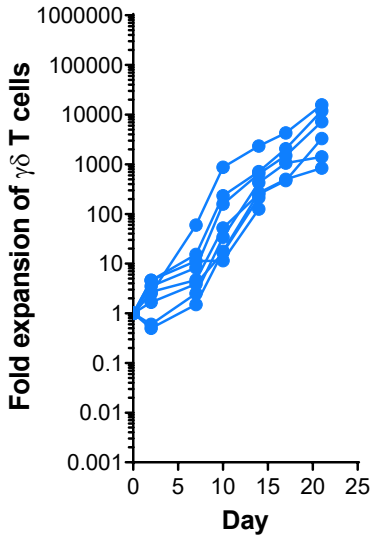
Why γδ T cells?

γδ T cells Are Well Suited for an Off-the-shelf Cell Therapy Approach

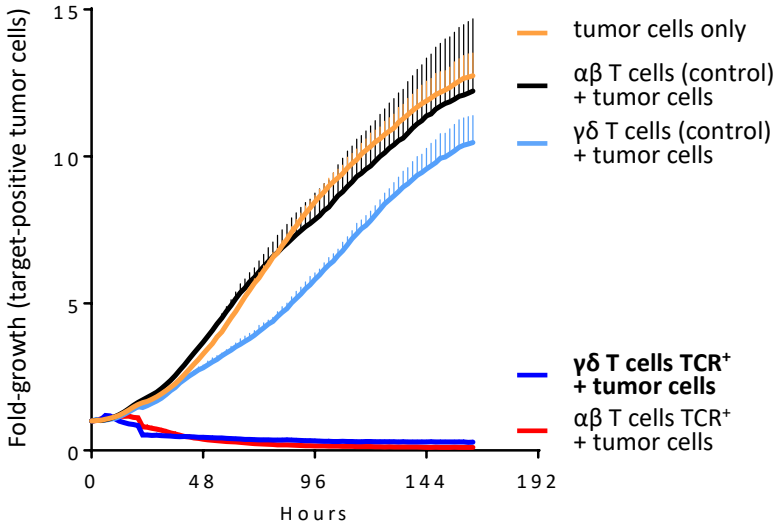
γδ T cells

- ✓ are abundant in the peripheral blood
- ✓ show intrinsic anti-tumor activity
- ✓ naturally infiltrate solid tumors & correlate with favorable prognosis
- ✓ are HLA-independent, thus do not cause graft-vs-host disease in allogeneic setting
- ✓ can be expanded to high numbers in a cGMP-compatible manner
- ✓ can be effectively redirected using αβ TCR or CAR constructs

Expansion



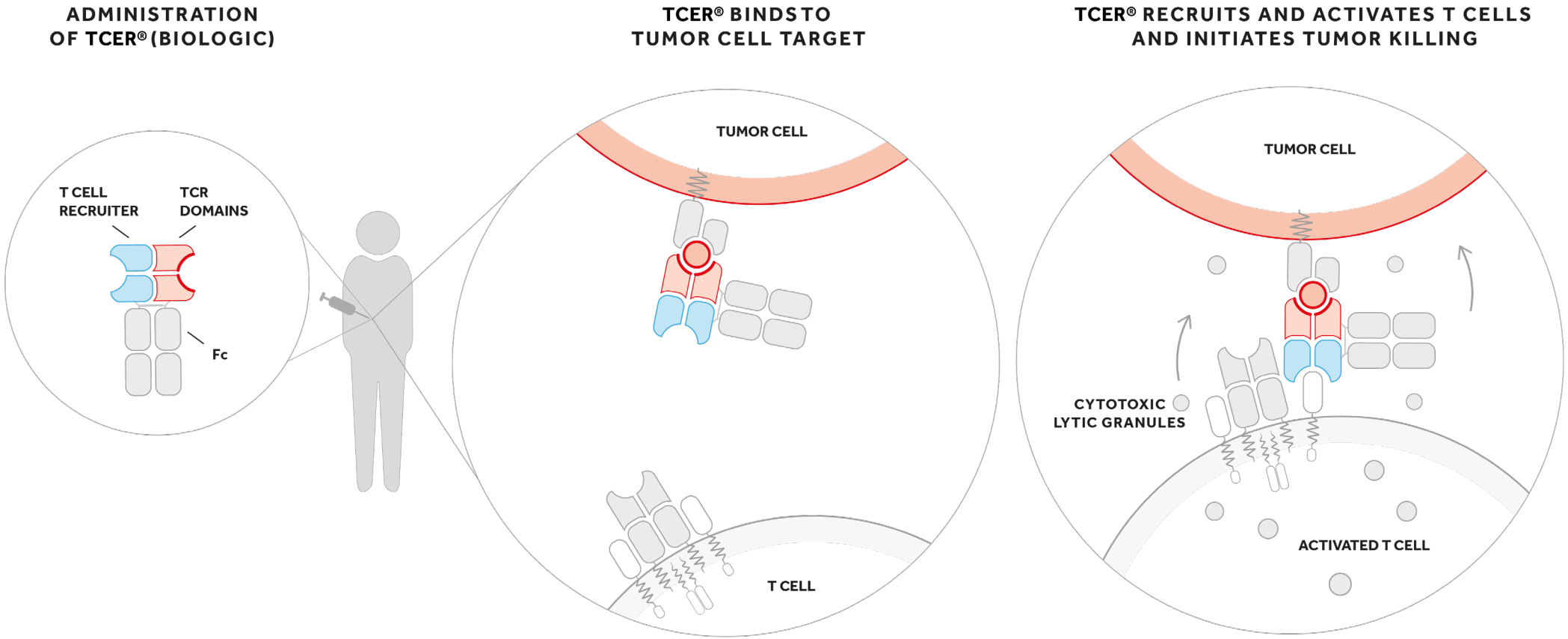
In vitro anti-tumor activity



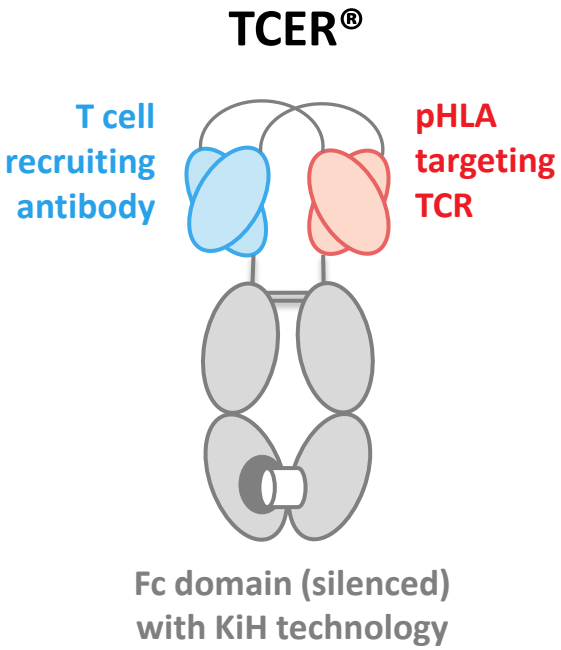
TCER® – TCR Bispecifics

TCER® – Mechanism of Action

Immatics' Off-the-Shelf TCR Bispecifics Approach



TCER® – Immatics' Half-Life Extended Bispecifics



pHLA targeting TCR

- ✓ **High-affinity TCR** targeting HLA-restricted tumor-specific peptides
- ✓ Broad therapeutic window through **XPRESIDENT®-guided** affinity maturation (>1000x)[1]
- ✓ **Complete tumor eradication** in mouse xenograft models at low doses

T cell recruiting antibody

- ✓ **Low-affinity** T cell recruiter against both **TCR & CD3**
- ✓ **Optimized biodistribution** aiming for enrichment at tumor site and **prevention of CRS**[2]
- ✓ **Superior anti-tumor activity** in mouse models as compared to widely used CD3 recruiters

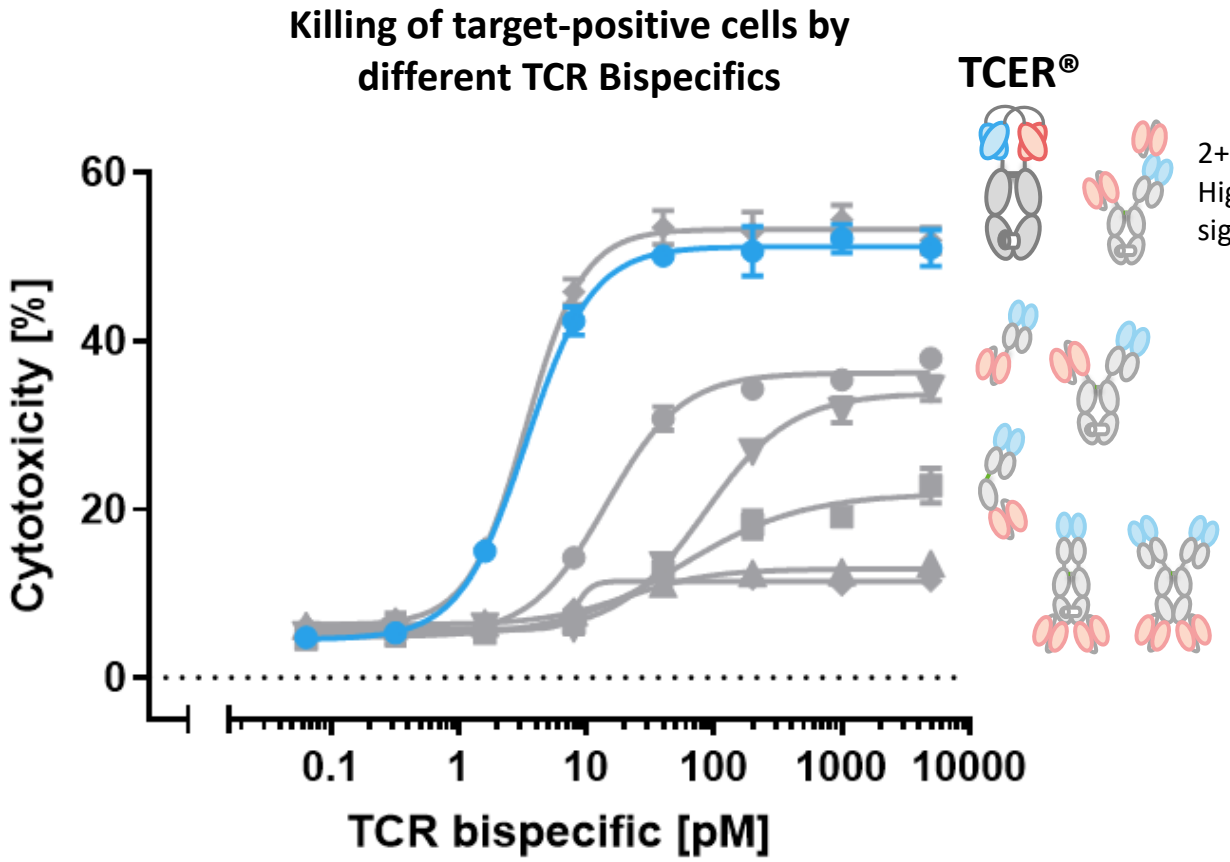
Next-generation TCER® format

- ✓ Off-the-shelf biologic with antibody-like manufacturability[3] and low cost of goods
- ✓ Superior anti-tumor activity[4] compared to six alternative bispecific formats
- ✓ Half-life of several days expected in humans

Our TCER® format is designed to maximize efficacy while minimizing toxicities in patients

[1] As compared to natural TCR; [2] Based on literature data for other low-affinity recruiters (e.g. Harber *et al.*, 2021, Nature); [3] Production in mammalian cells (CHO cells); [4] Based on preclinical testing

Potency of Our Proprietary TCR Bispecific Format TCER®



TCER®

2+1 TCR bispecific format:
High potency was linked to a significantly reduced specificity profile

- Seven different TCR Bispecific formats were evaluated with a pHLA targeting TCR and the identical T cell recruiting antibody
- TCER® format had higher combination of potency and specificity[1] than six alternative TCR Bispecific format designs evaluated

Flexible Plug-and-play platform: TCER® format successfully validated for different TCRs & different T cell recruiting antibodies

[1] Preclinical data on specificty not shown

TCER® Portfolio

Building a Pipeline of Next-Gen Half-Life Extended TCR Bispecifics

	IMA401	IMA402	IMA40X
	MAGEA4/8	**PRAME**	**Undisclosed**
Status	Start of Phase 1 trial in May 2022	Clinical GMP batch targeted in 2022 Phase 1 trial in 2023	TCER® engineering and preclinical testing ongoing
Preclincial Proof-of-concept – Efficacy / Safety	➢ Complete remission of estab. tumors in xenograft mouse models at low doses ➢ Very broad therapeutic window (reactivity tumor compared to normal cells)		n/a
Half-life	Half-life extended to several days via effector function silenced Fc part		
Clinical Development Strategy	➢ First-in-human basket trial ➢ Adaptive design aiming at fast dose escalation ➢ Development strategy includes TCER® as add on to checkpoint inhibitor-based standard of care in early lines of treatment		

Phase 1 Clinical Trial to Evaluate TCER® IMA401 Targeting MAGEA4/8

Trial Overview

Biomarker positive patients with recurrent and/or refractory solid tumors
- HLA-A*02:01
- MAGEA4/8 (Immatics' IMADetect® test)

Basket trial in indications with high MAGEA4/8 prevalence, e.g. sqNSCLC, SCLC, HNSCC, bladder carcinoma, esophageal carcinoma, ovarian carcinoma, melanoma, uterine carcinosarcoma, sarcoma subtypes

Phase 1a: Dose escalation cohort
Phase 1b: Dose expansion cohort(s)

Up to N=50 patients
Up to 15 centers

Primary Objective

- Determine maximum tolerated dose (MTD) and/or recommended phase 2 dose (RP2D)

Secondary Objectives

- Safety and tolerability
- Initial anti-tumor activity
- Pharmacokinetics

MTD: maximum tolerated dose, RP2D: recommended phase 2 dose

Phase 1 Clinical Trial to Evaluate TCER® IMA401 Targeting MAGEA4/8

Phase 1a: Dose Escalation

Adaptive design aimed at accelerating dose escalation

MTD/ RP2D

- MABEL-based starting dose
- Weekly i.v. infusions[1]
- 2-week DLT evaluation period
- Dose escalation decisions based on cohorts of 1-6 patients in adaptive design (BLRM model)

Phase 1b: Dose Expansion

Monotherapy expansion cohort

Potential development option for checkpoint inhibitor combination or other combination therapies[2]

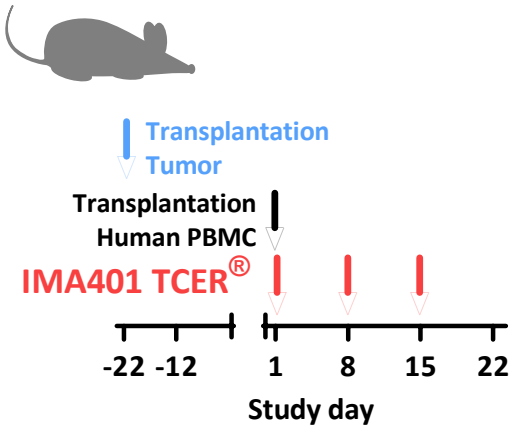
- Focus on specific indications planned

MTD: maximum tolerated dose, RP2D: recommended phase 2 dose; MABEL: minimum anticipated biological effect level; BLRM: Bayesian logistic regression model;
[1] Pharmacokinetics data assessed throughout the trial might provide an opportunity to optimize scheduling to a less frequent regimen. [2] Conducted in collaboration with BMS

TCER® IMA401 Targeting MAGEA4/8

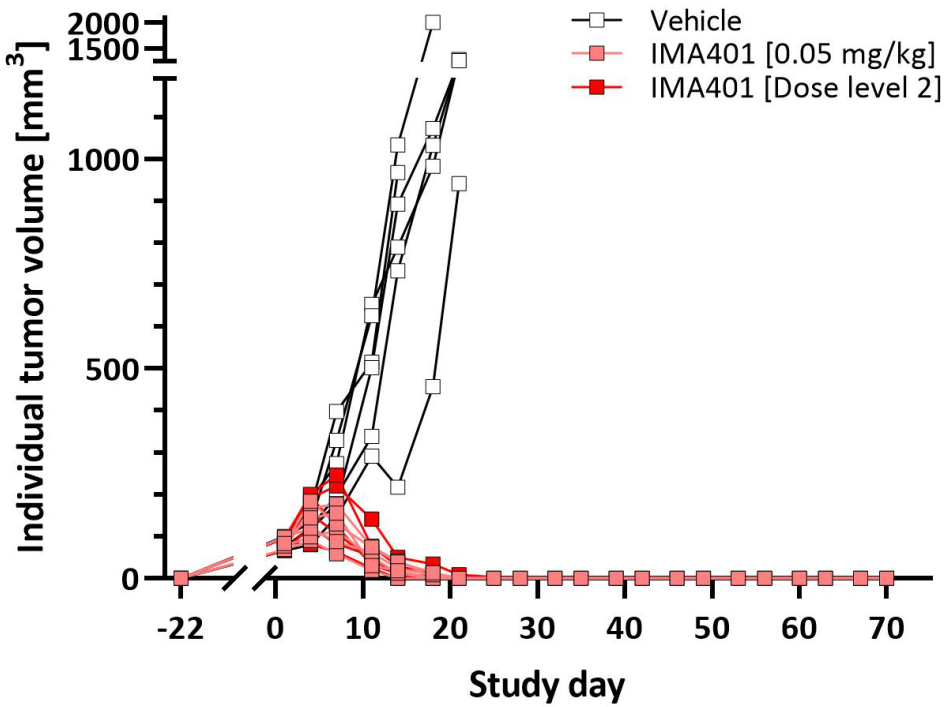
Product Candidate in Clinical Development with Bristol Myers Squibb

Treatment schedule



N=6 mice per group, two PBMC donors
Dose: two dose levels

Tumor Model in Mice[1]



- **Complete remissions observed in all animals** even at low IMA401 dose of 0.05 mg/kg
- No detectable outgrowth of tumors during **prolonged observation period of 70 days**

[1] Hs695T xenograft model in MHC I/II ko NSG mice, tumor volume of individual mice shown

TCER® IMA402 Targeting PRAME

Preclinical-stage Product Candidate Fully Owned by Immatics

PRAME Target Peptide

- **HLA-A*02-restricted PRAME peptide** targeted by TCER® IMA402 is one of the most frequently expressed intracellular cancer targets for TCR-based therapies
  - ➢ Homogenously expressed at high prevalence across multiple solid tumors including melanoma, lung cancer, gynecological cancers (ovarian, breast, uterine) and others

Preclinical Proof-of-Concept Data

- **High *in vitro* potency** in killing of tumor cells with physiological PRAME peptide levels
- Favorable safety profile with broad therapeutic window between tumor and normal cell reactivity *in vitro*
- **Consistent tumor regression** including complete responses in NOG mice treated at low doses
- **Extended serum half-life** of several days[1] expected in humans driven by the TCER® Fc part

Well Progressing CMC Development

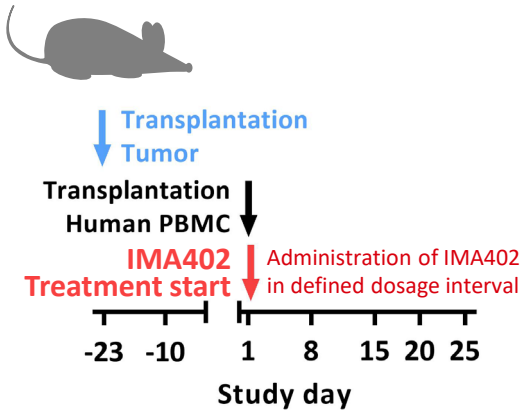
- Current data support antibody-like manufacturability and developability
- GMP process development and IND-enabling activities ongoing
- Manufacturing of the clinical batch for the Phase 1 trial expected in 2H 2022

[1] Based on preclinical testing

TCER® IMA402 – Efficacy Assessment in Tumor Model in Mice

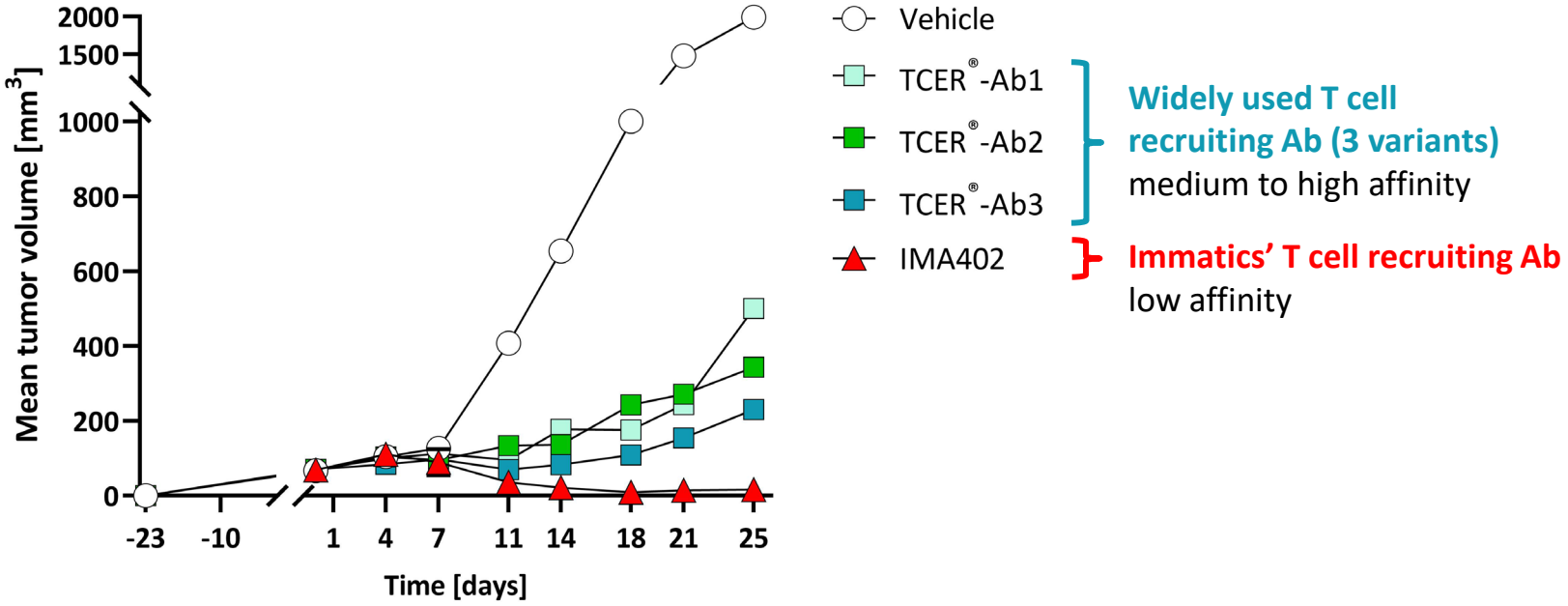
Superior Tumor Control Using a Proprietary, Low-Affinity Recruiter

Treatment schedule



N=6 mice per group, two PBMC donors
Dose: 0.025 mg/kg

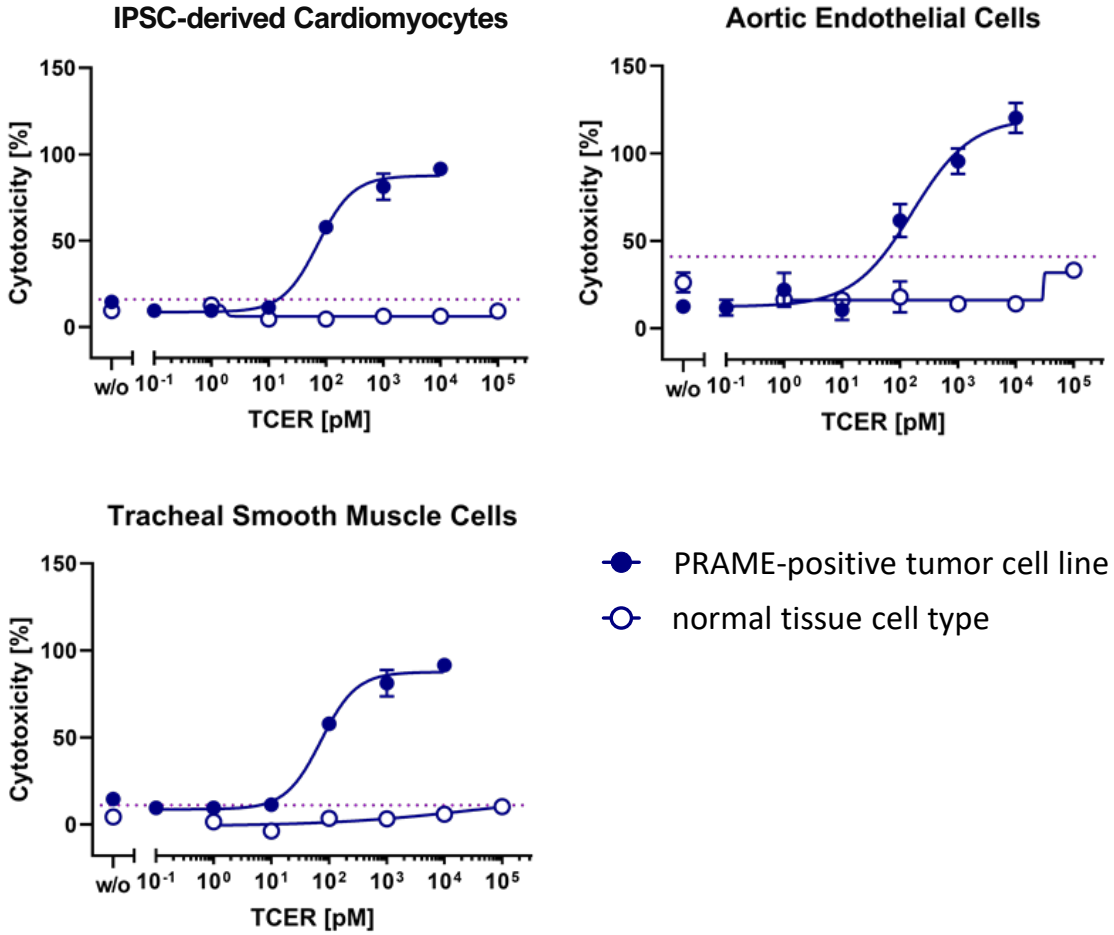
Tumor Model in Mice[1]



Proprietary, **low-affinity T cell recruiting region** demonstrates superior tumor control compared to analogous TCER® molecules designed with higher-affinity variants of a widely used recruiter

[1] Hs695T xenograft model in NOG mice, tumor volume of group means shown

TCER® IMA402 – *In vitro* Safety Assessment with Normal Tissue Cells



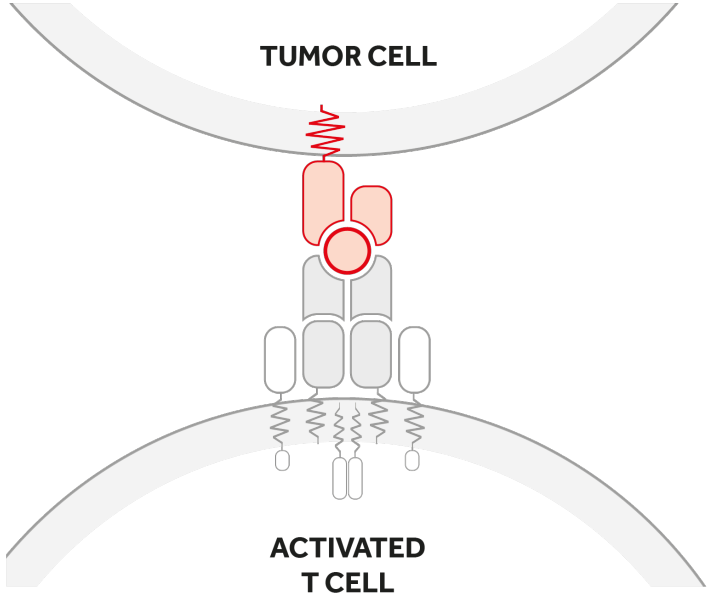
Normal Tissue Type	Therapeutic Window (x-fold)
IPSC-derived astrocytes	≥1,000
IPSC-derived GABA neurons	≥1,000
IPSC-derived cardiomyocytes	≥1,000
Human Pulmonary Fibroblasts	≥1,000
Human Cardiac Microvascular Endothelial Cells	≥1,000
Human Dermal Microvascular Endothelial Cells	≥1,000
Human Aortic Endothelial Cells	≥1,000
Human Coronary Artery Smooth Muscle Cells	≥1,000
Human Tracheal Smooth Muscle Cells	≥1,000

- Cytotoxicity against N≥9 different human normal tissue cell types
- TCER® IMA402 shows a **minimum of 1,000-fold therapeutic window** between normal tissue cell reactivity and tumor cell reactivity

Immatics' Proprietary Target and TCR Discovery Platforms

True Cancer Targets & Matching Right TCRs

Goal to Maximize Anti-Tumor Activity and Minimize Safety Risks of TCR-based Immunotherapies



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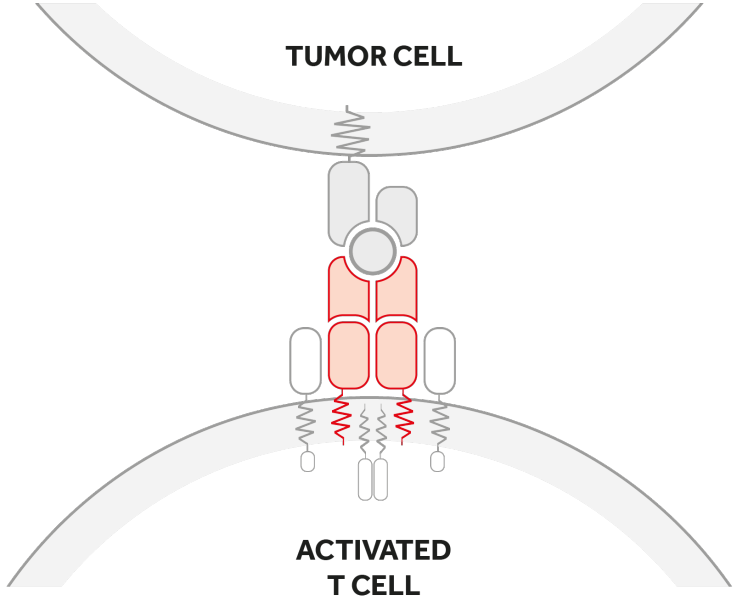


True Targets via XPRESIDENT® technology platform

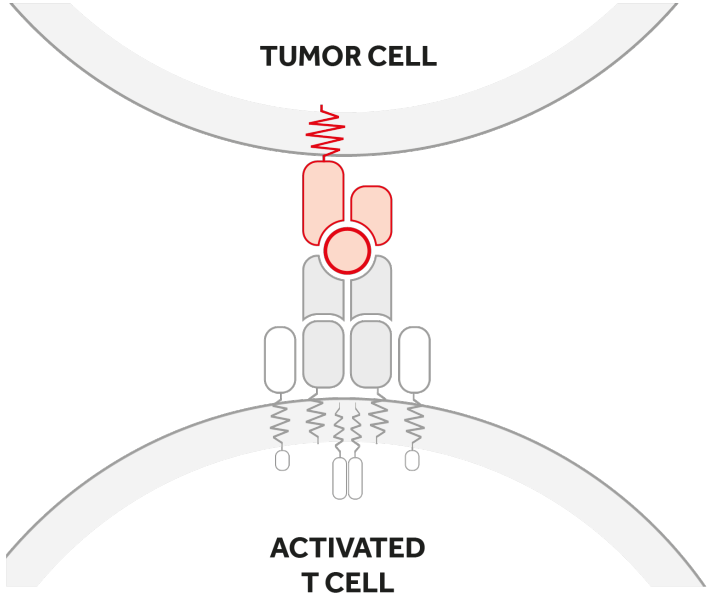
- are naturally presented on tumor tissues as identified by mass-spec
- are absent or presented at only low levels on normal tissues
- are presented at high copy numbers to trigger a pharmacological response

Right TCRs via XCEPTOR® technology platform

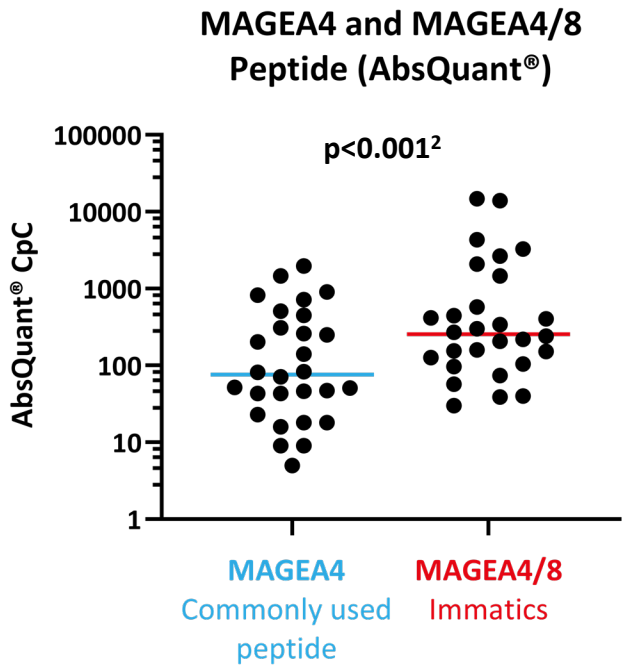
- recognize the target peptide with high affinity and specificity
- show selective killing of tumor cells
- are developed to be suitable for two different therapeutic modalities, Cell Therapies and TCR Bispecifics

Immatics' Unique Capability – Identification of the most Relevant Target

Example of MAGEA4/8 Peptide Target



Ranking of pHLA targets



XPRESIDENT® quantitative information on target density[1] between peptides originating from the same source protein

MAGEA4/8 target is presented at >5-fold higher target density[1] than a commonly used MAGEA4 target peptide

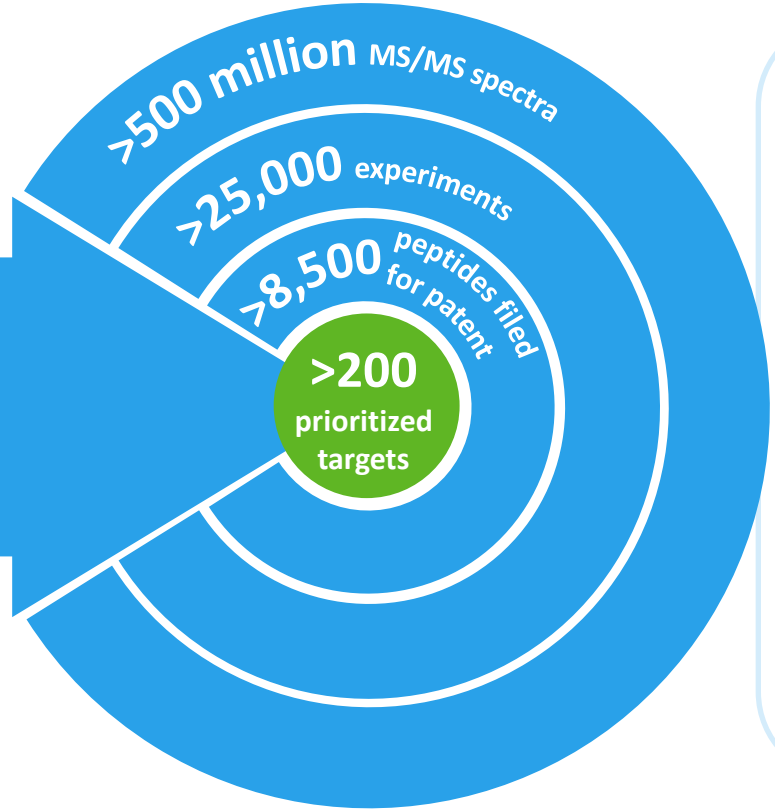
[1] Copy number per tumor cell (CpC) measured on a paired-sample basis by AbsQuant®, i.e. comparing MAGEA4 vs. MAGEA4/A8 peptide presentation on same sample, [2] Students paired T test

Pool of 200 Prioritized Targets as Foundation for Future Value Generation

pHLA Database

based on primary tissues

>2,500 cancer & normal tissues analyzed by **Quantitative, Ultra-Sensitive Mass Spectrometry**



200 Prioritized Targets

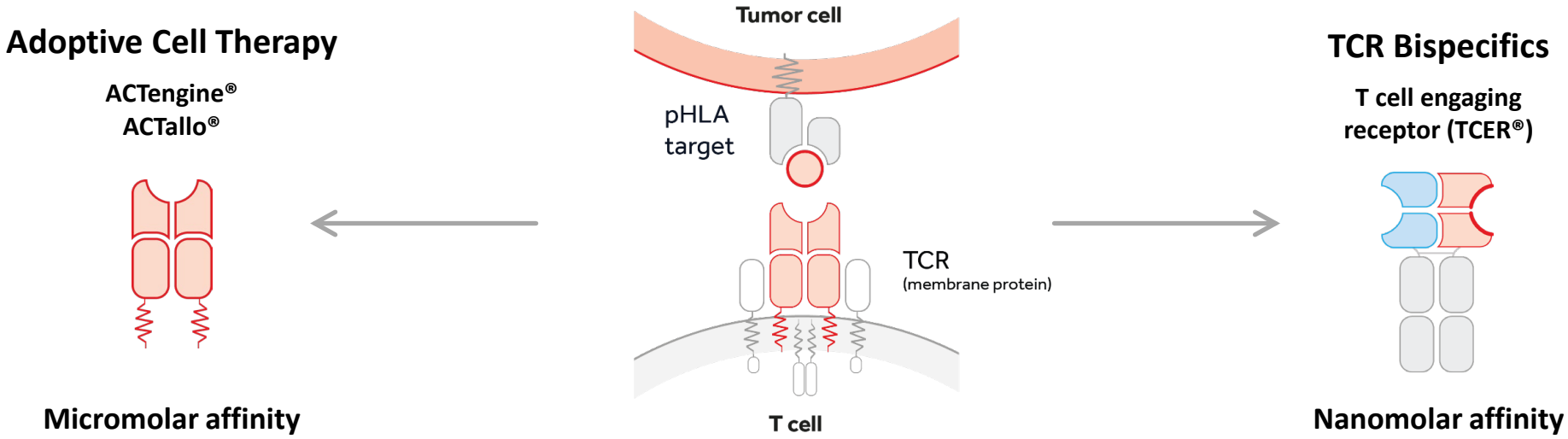
Grouped in 3 Target Classes:

1. **Well known and characterized parent protein (20%)**
   e.g. MAGE family cancer testis antigens
2. **Unknown or poorly characterized parent protein (60%)**
   e.g. stroma target COL6A3 exon 6
3. **Crypto-targets/Neoantigens (20%)**
   Novel target class which includes RNA-edited peptides & non-classical neoantigens

~50% of our prioritized targets are non-HLA-A*02 restricted, substantially broadening the potential patient reach

Development of the Right TCR – XCEPTOR® Technology

TCR Discovery and Engineering for ACT and TCR Bispecifics

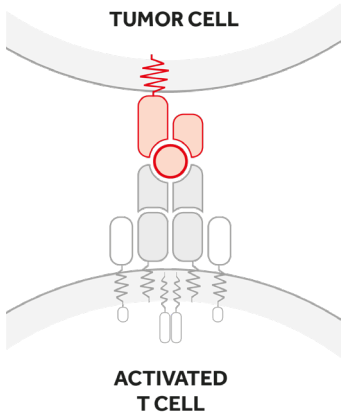
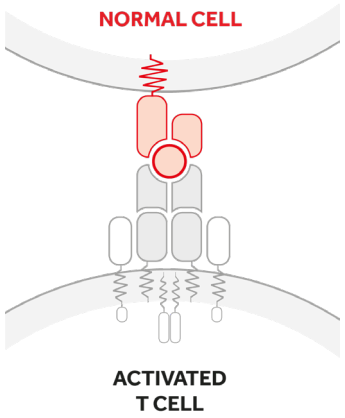
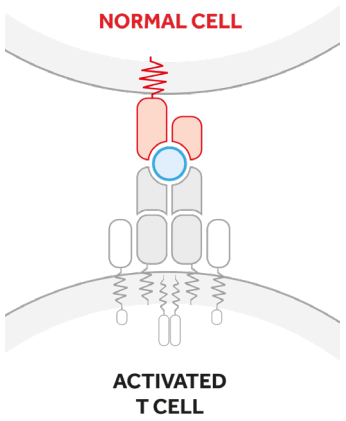
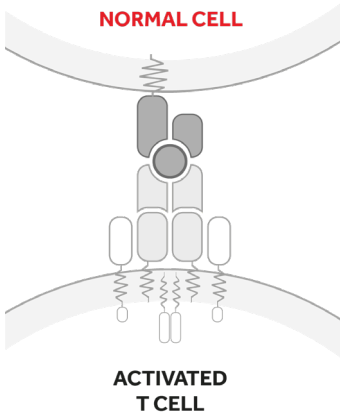


- Fast, efficient and highly sensitive discovery of highly specific, natural TCRs
- Protein engineering capabilities to design and maturate TCRs with increased affinity while retaining specificity
- Early de-selection of cross-reactive TCRs by the unique interplay between Immatics' target and TCR discovery platforms XPRESIDENT® and XCEPTOR® during TCR discovery[1] and TCR maturation[2]

[1] XPRESIDENT®-guided off-target toxicity screening; [2] XPRESIDENT®-guided similar peptide counterselection

Optimal Target Selection & TCR Specificity for Minimizing Safety Risks

Unique Interplay between Technology Platforms Allows Early De-risking for Clinical Development

Target peptide presented on tumor cells	Target peptide presented on normal cells	Similar peptide presented on normal cells[1]	A different HLA is recognized on normal cells
			
Selective killing of tumor cells	On-target (off-tumor) toxicity	Off-target toxicity	Alloreactivity

XPRESIDENT®-guided screening for on- and off-target toxicities of TCRs based on the extensive database of peptides presented on normal tissues

[1] Clinical fatalities have occurred in TCR-T trials using a titin cross-reactive TCR (Cameron *et al.*, Sci Transl Med)

Corporate Information & Milestones

Experienced Global Leadership Team Across Europe and the US

Harpreet Singh
Chief Executive Officer
Co-Founder
>20 yrs biotech experience

Arnd Christ
Chief Financial Officer
>20 yrs biotech experience
(Probiodrug, NovImmune, Medigene, InflaRx)

Cedrik Britten
Chief Medical Officer
>10 yrs pharma & biotech experience
(BioNTech, GSK)

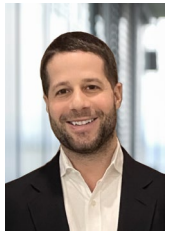
Carsten Reinhardt
Chief Development Officer
>20 yrs pharma & biotech experience
(Micromet, Roche, Fresenius)

Steffen Walter
Chief Technology Officer
Co-Founder Immatics US
>15 yrs biotech experience

Toni Weinschenk
Chief Innovation Officer
Co-Founder
>15 yrs biotech experience

Rainer Kramer
Chief Business Officer
25 yrs pharma & biotech experience
(Amgen, MorphoSys, Jerini, Shire, Signature Dx)

Edward Sturchio
General Counsel
>15 yrs pharma & biotech experience
(Schering, Merck, Novartis, Advanced Accelerator Applications, Abeona Therapeutics)



Jordan Silverstein
Head of Strategy
>10 yrs biotech experience
(Advanced Accelerator Applications, InflaRx)

Strong, Focused and Highly Integrated Trans-Atlantic Organization

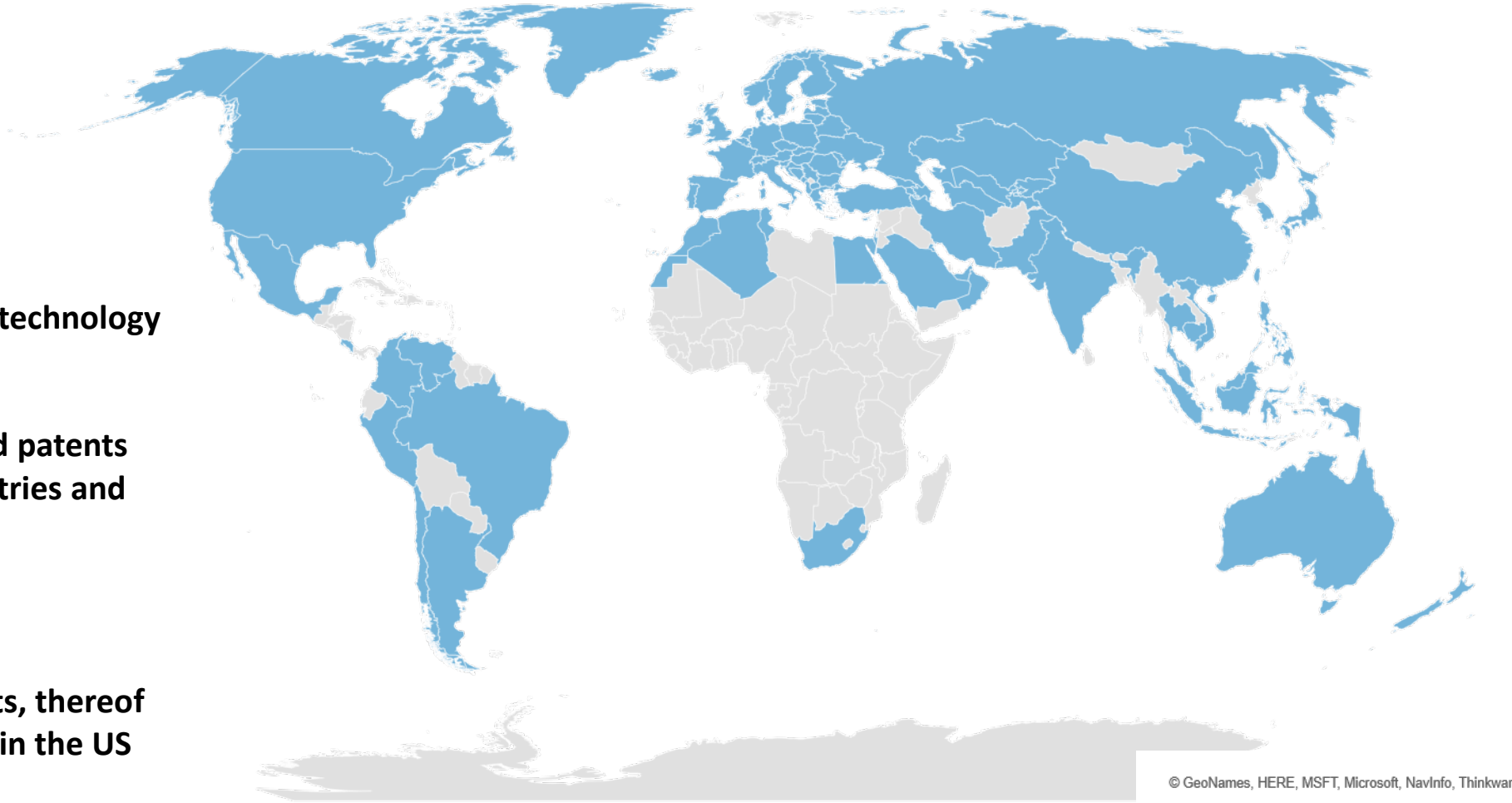
Tübingen, Germany, ~195 FTEs
Target & TCR discovery and
TCR Bispecifics development

Houston, Texas, ~140 FTEs
Cell therapy development
and manufacturing

Munich, Germany, ~55 FTEs
Various operating functions

Robust IP Portfolio

Immatics' Patent Estate – Territorial Coverage

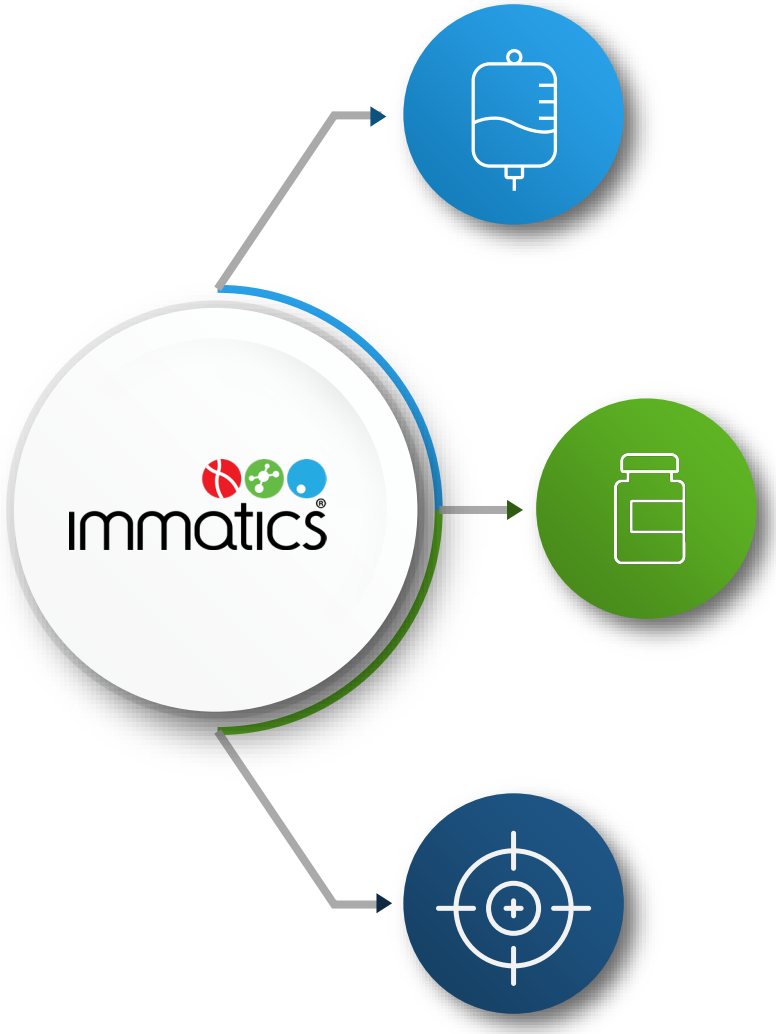


Cancer targets, TCRs and technology protected by:

- **5,800 applications and patents filed in all major countries and regions**
- **>115 patent families**
- **>2,000 granted patents, thereof >500 granted patents in the US**

Near-Term Value Drivers and Development Milestones

Clinical Expansion of TCR Bispecifics and the Next-generation of TCR-T



Advance clinical development of ACTengine® candidates

- Multiple IMA203 Ph1b expansion cohorts:
  Monotherapy, checkpoint combination, 2nd-gen approach IMA203CD8
- Next IMA203 monotherapy data read-out in 2H 2022
- Initial data read-out for checkpoint combination, IMA203CD8 YE 2022
- Advance IMA204 to the clinic, submission of IND application YE 2022

Further clinical development of TCER® candidates

- Start of Ph1 trial for IMA401 (MAGEA4/8) in May 2022
- Manufacturing of IMA402 clinical batch in 2H 2022, clinical trial in 2023
- Innovative TCER® program(s) IMA40X in preclinical development

Leverage full potential of targeting PRAME

- Focused & accelerated development of IMA203 expansion cohorts
- Develop IMA402, an off-the-shelf TCER®

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