
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

October 18, 2022

Commission File Number: 001-39363

IMMATICS N.V.

Paul-Ehrlich-Straße 15
72076 Tübingen, Federal Republic of Germany
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F

Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

INFORMATION CONTAINED IN THIS REPORT ON FORM 6-K

On October 18, 2022, Immatics N.V. (the "Company") made available an updated investor presentation on its website, a copy of which is attached hereto as Exhibit 99.1. The fact that this presentation is being made available and filed herewith is not an admission as to the materiality of any information contained in the presentation. The information contained in the presentation is being provided as of October 18, 2022 and the Company does not undertake any obligation to update the presentation in the future or to update forward-looking statements to reflect subsequent actual results.

EXHIBIT INDEX

Exhibit No.	Description
99.1	Presentation dated October 18, 2022

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: October 18, 2022

IMMATICS N.V.

By: /s/ Harpreet Singh
Name: Harpreet Singh
Title: Chief Executive Officer



Immatics Corporate Presentation

October 18, 2022



Delivering the Power of T cells to Cancer Patients

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Forward-Looking Statement



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Certain information contained in this Presentation relates to or is based on studies, publications, surveys and the Company's own internal estimates and research. In addition, all of the market data included in this presentation involves a number of assumptions and limitations, and there can be no guarantee as to the accuracy or reliability of such assumptions. Finally, while the Company believes its internal research is reliable, such research has not been verified by any independent source. All the scientific and clinical data presented within this presentation are – by definition prior to completion of the clinical trial and a clinical study report – preliminary in nature and subject to further quality checks including customary source data verification.



Two Clinical-Stage Modalities

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



Clinical PoC for Cell Therapy

High rate of confirmed 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

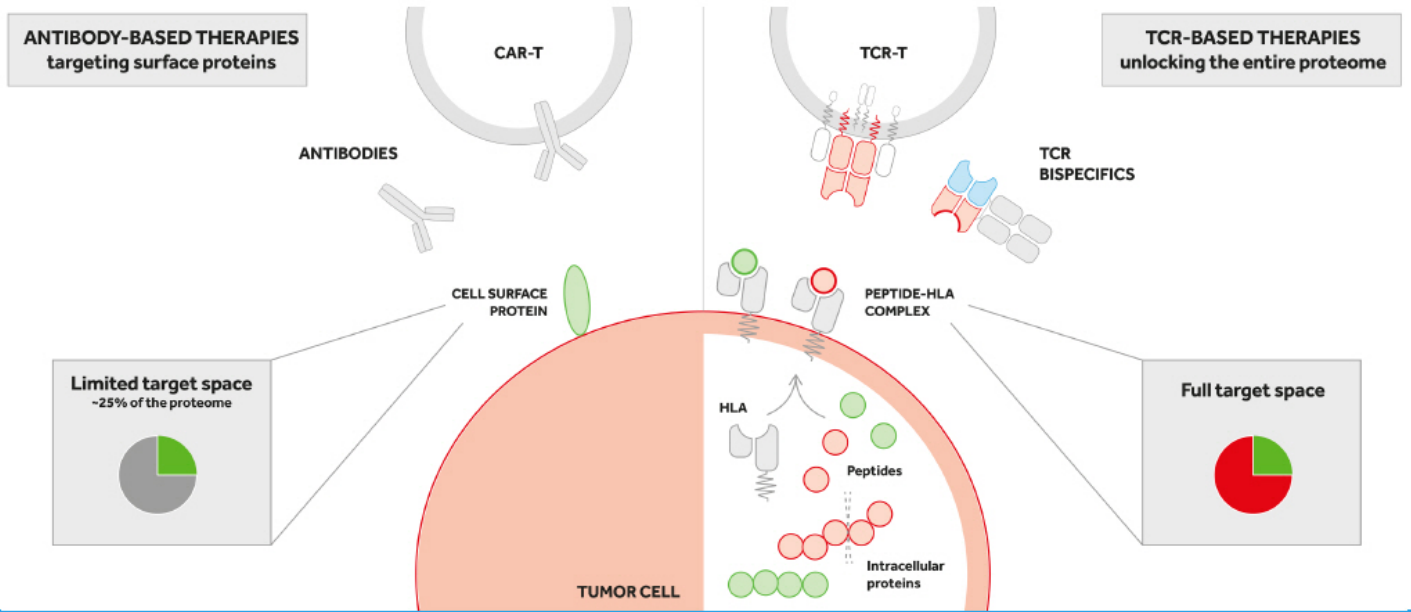
World-leading industry players with synergistic expertise

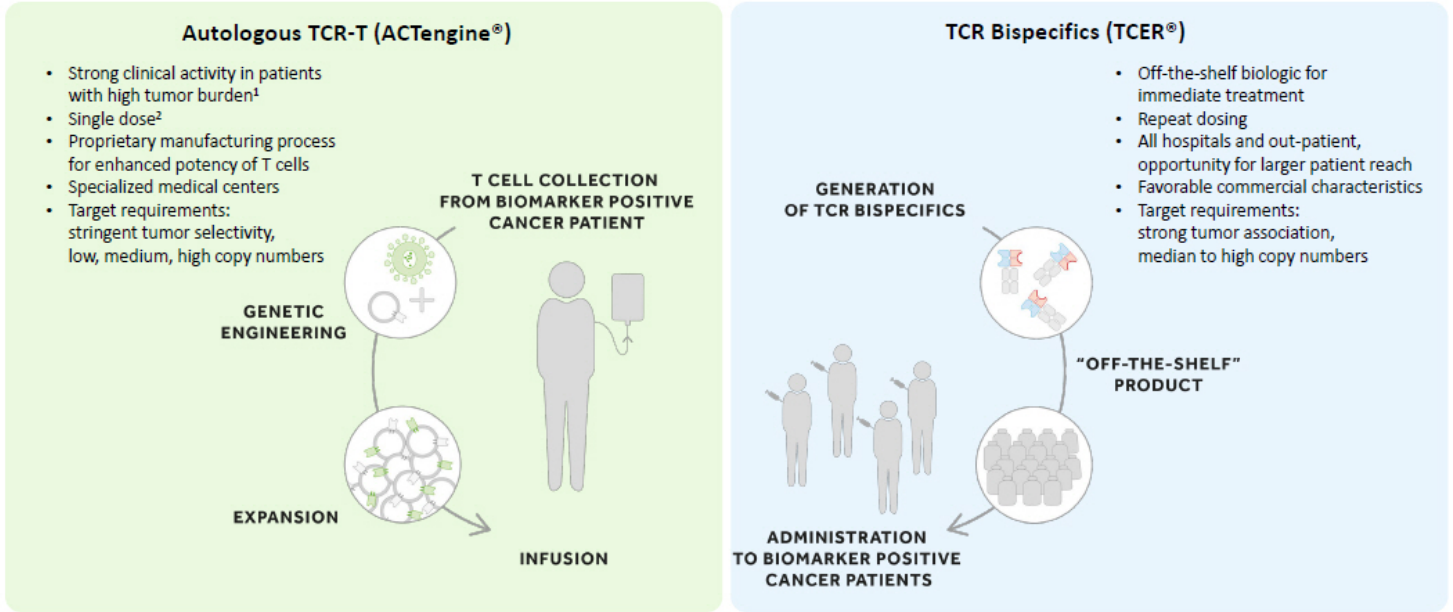


Solid Cash Runway

To reach multiple value inflections points across our portfolio

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

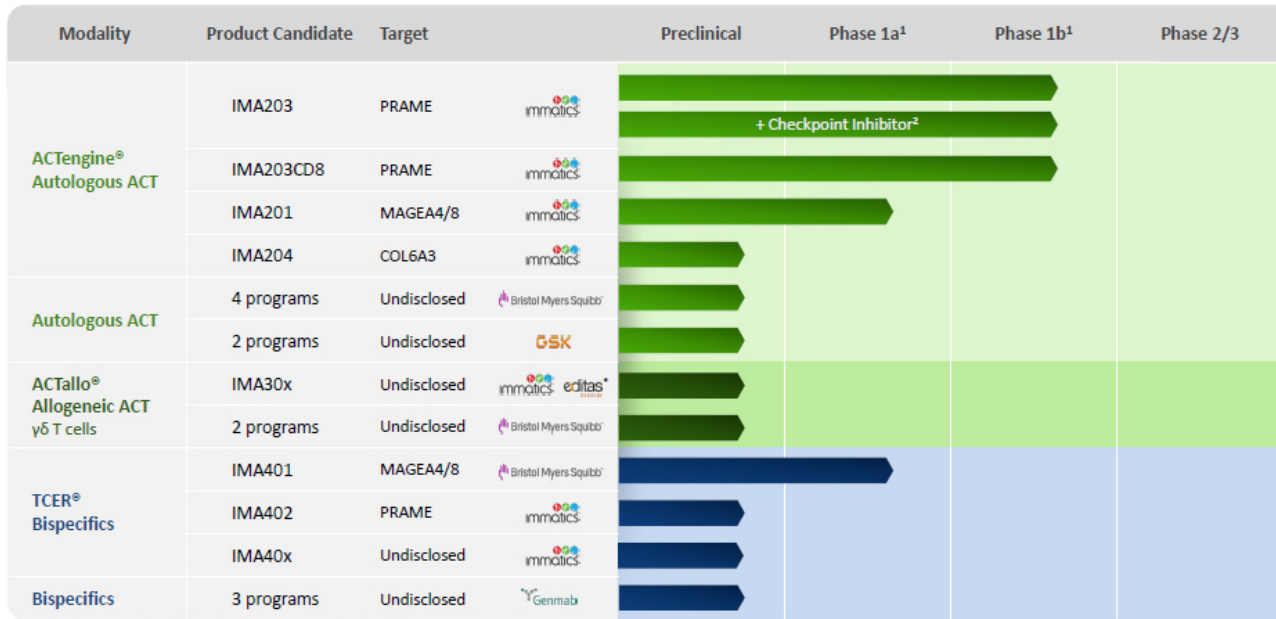




Differentiated positioning of ACTengine® vs. TCER® based on patient population, medical need and geographical reach

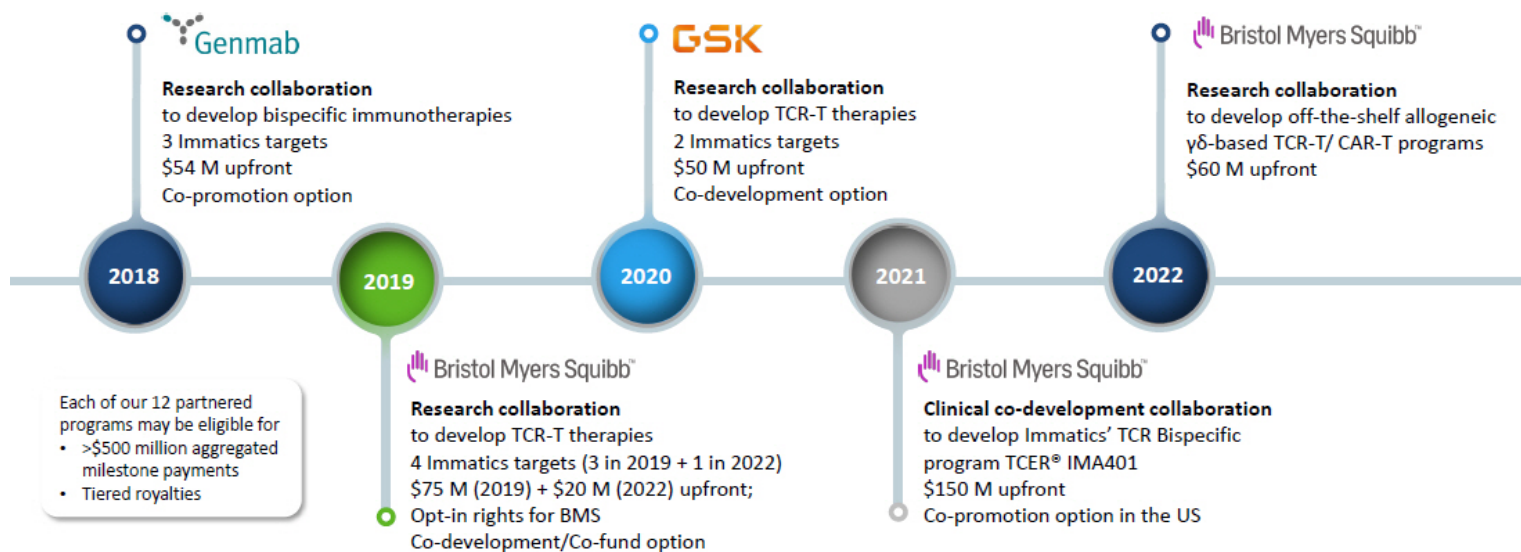
Intro ¹ Interim data update from the ACTengine® IMA203 TCR-T Phase 1 trial with a 50% (6/12) confirmed ORR target dose or above with at least 1 billion infused TCR-T cells across several solid tumor indications, 80% (4/5) confirmed ORR in Phase 1b patients only; ² Repeat dosing without re-manufacturing possible

Our Pipeline of TCR-based Adoptive Cell Therapies and Bispecifics



Strategic Collaborations

Synergistic Expertise that Can Foster Transformative Innovations for ACT and Bispecifics



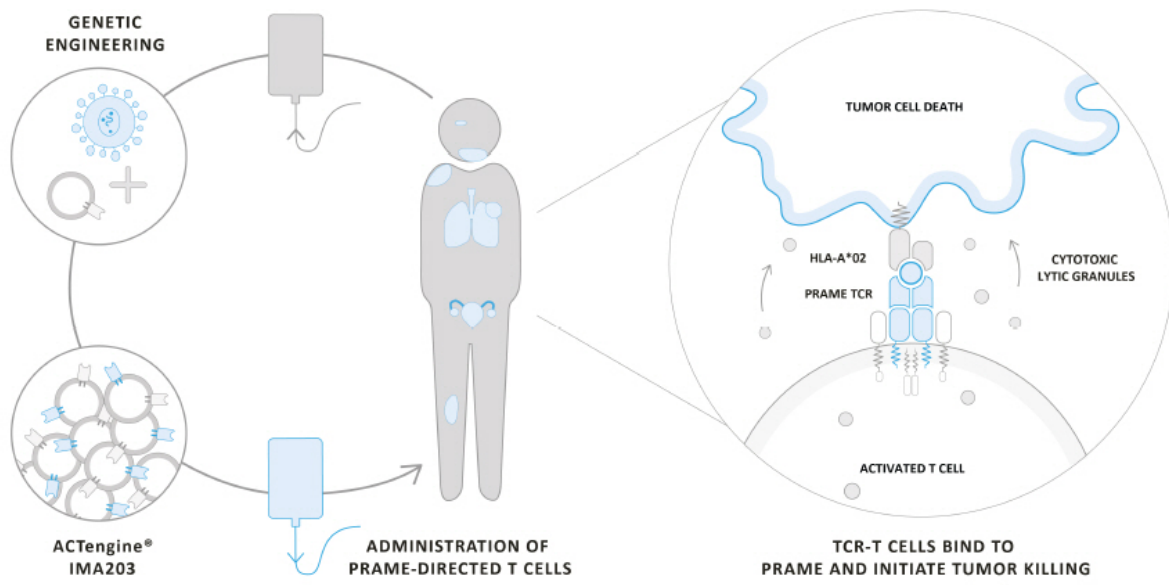
Broadening the clinical framework beyond our pipeline



ACTengine® IMA203 – TCR-T Targeting PRAME

ACTengine® IMA203 Targeting PRAME – Mechanism of Action

Immatic's Leading TCR-T Approach

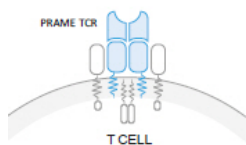
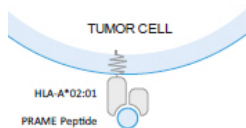


Multi-Tumor Target PRAME

Promising Opportunity for TCR-based Therapies

PRAME Peptide Target

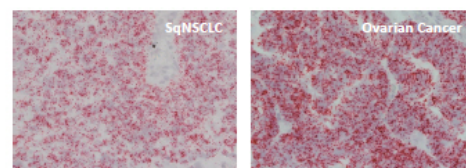
- HLA-A*02:01 presented peptide identified by XPRESIDENT® quant. mass spectrometry
- Presented at high target density in tumor tissue (100-1000 copies/cell)
- Homogenously expressed
- Highly cancer-specific, not expressed in normal tissue at relevant levels
- Highly prevalent across many solid cancers
- Potential to reach a large cancer patient population



IMA203 T cell Receptor (TCR):

- Affinity-improved TCR by enhanced TCR chain pairing
- High functional avidity: EC50 ~5 ng/ml
- Off-target toxicity screening against normal tissue peptides selected from our immunopeptidome database to retain specificity

PRAME RNA detection in tumor samples (ISH)



Patient screening data from Immatics' clinical trials support high prevalence of PRAME:

Uterine Carcinoma	90%
Cut. Melanoma	95%
Uveal Melanoma ²	90%
Ovarian Carcinoma	70%

Indication	% PRAME positive patients ¹
Uterine Carcinoma	100%
Uterine Carcinosarcoma	100%
Sarcoma Subtypes	up to 100%
Cut. Melanoma	95%
Uveal Melanoma ²	50%
Ovarian Carcinoma	80%
Squamous NSCLC	65%
TNBC	60%
Small Cell Lung Cancer	55%
Kidney Carcinoma	up to 45%
Cholangiocarcinoma	35%
Adeno NSCLC	25%
Breast Carcinoma	25%
HNSCC	25%
Esophageal Carcinoma	20%
HCC	20%
Bladder Carcinoma	20%

IMA203

¹PRAME target prevalence is based on TOGA (for SCLC; in-house) RNAseq data combined with a proprietary mass spec-guided RNA expression threshold; ²TCGA: early & late-stage primary tumor samples, Immatics clinical trials: late-stage/metastatic tumor samples, Role of PRAME in metastasis of uveal melanoma: Field et al. 2016 Clinical Cancer Research; NSCLC: Non-small cell lung cancer, TNBC: Triple-negative breast cancer, HNSCC: Head and neck squamous cell carcinoma; HCC: Hepatocellular carcinoma

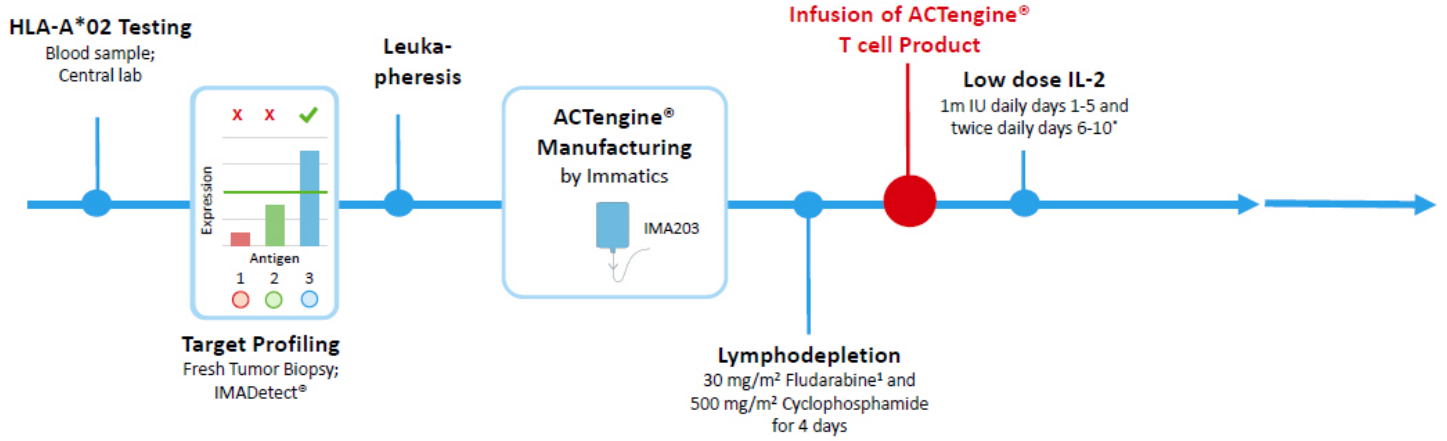
10

Screening & Manufacturing Phase

Treatment & Observation Phase

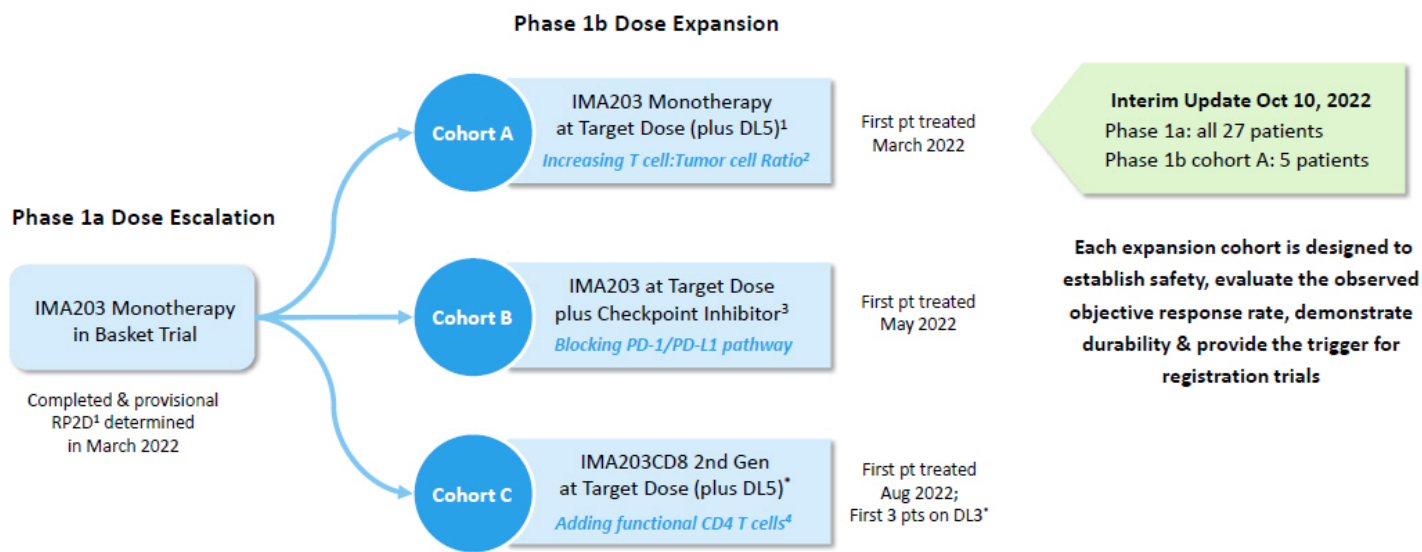
Long Term Follow-up

Safety and efficacy monitoring for 12 months



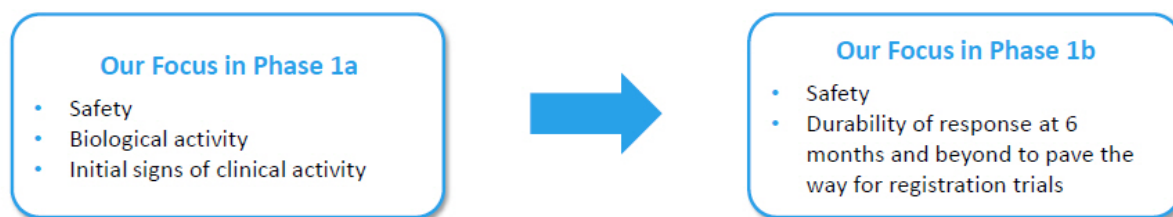
IMA203 TCR-T Phase 1 Design

Three Phase 1b Expansion Cohorts to Establish Durable Objective Responses



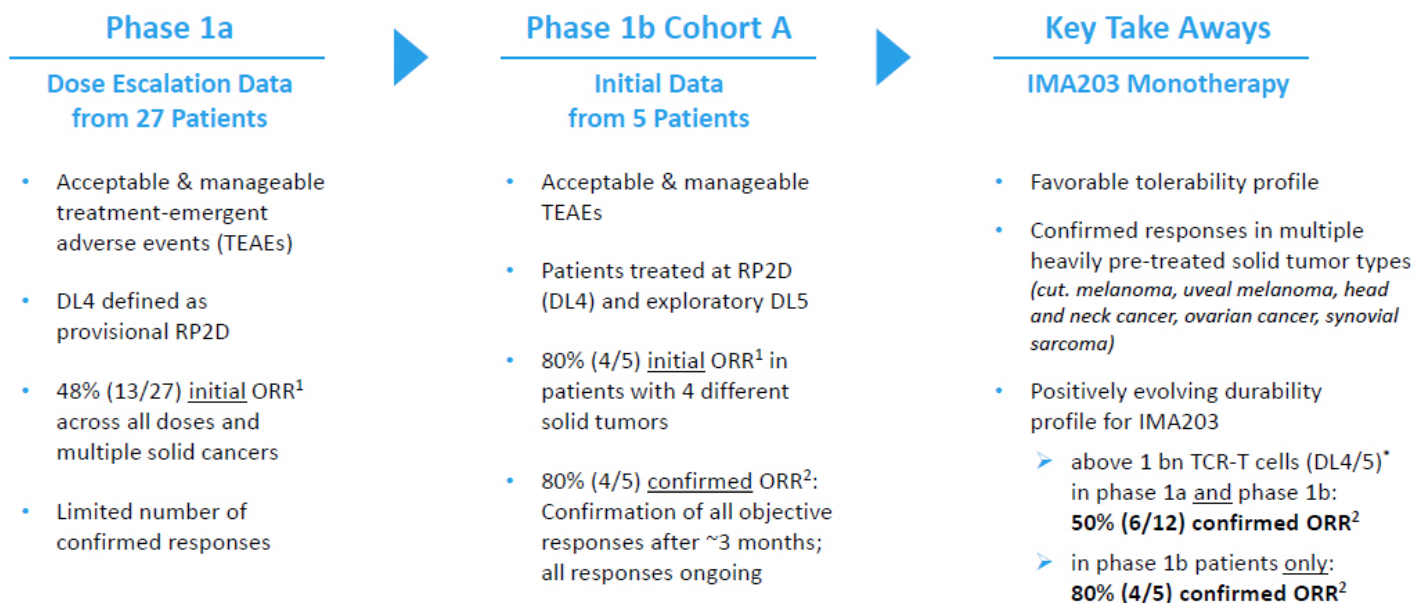
Moving from Phase 1a to Phase 1b

Continuous Improvement of Key Aspects that May Influence Clinical Outcome



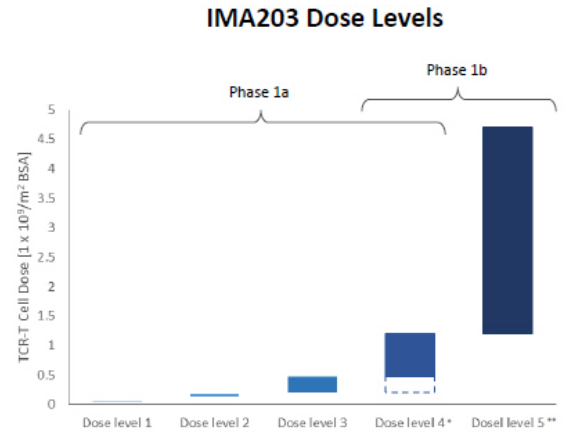
We continue to improve key determinants as we move from Phase 1a into Phase 1b

1. **Higher T cell dose:** Only RP2D or exploratory DL5
2. **Enhanced cell product:** Implementation of manufacturing enhancements (e.g. monocyte depletion, see appendix) focusing on robustness, quality, and speed of product release
3. **“Real life” patients:** Working with more disease area experts to reduce the fraction of very heavily pre-treated patients with extreme disease burden who have exhausted standard of care and have undergone multiple clinical trials



Data cut-off – 06-Sept-2022

	Phase 1a Dose Escalation		Phase 1b (Cohort A) Dose Expansion
	All pts (DL1-4)	DL4 pts only	All pts (DL4/DL5)
Patients treated	27	7	5
Prior lines of treatment Mean (min, max)	4.2 (1, 8)	4.6 (1, 7)	4.0 (1, 10)
LDH at baseline >1 x ULN [% of patients]	66.7	85.7	40.0
Baseline tumor burden Mean target lesion sum of diameter [mm] (min, max)	130.3 (29.0, 219.7)	115.8 (37.0, 197.6)	55.2 (21.0, 102.9)
Dose Mean transduced viable CD8 T cells infused [x10 ⁸] (min, max)	0.65 (0.08, 2.09)	1.48 (1.07, 2.09)	2.22 (1.30, 4.16)
Manufacturing Process	Prior versions ¹		Current version



32 heavily pre-treated patients, thereof **12 patients at target dose or above**, were infused with IMA203 TCR-T cells targeting PRAME

DL4 was defined as provisional RP2D for Phase 1b, exploration of higher DL5 ongoing

Data cut-off – 06-Sept-2022

IMA203

¹ Except for 1 product for patient at DL3 generated with current manufacturing process; * DL4: 200m to 1.2bn transduced viable CD8 T cells per m² BSA, all patients in DL4 received cell doses in the upper tier of DL4, above DL3; ** DL5: up to 4.7bn transduced viable CD8 T cells per m² BSA; ULN: Upper limit of normal; BSA: Body surface area; RP2D: Recommended Phase 2 dose; LHD: Lactate dehydrogenase

IMA203 Tolerability Profile – Most Frequent Adverse Events

Acceptable and Manageable Treatment-emergent Adverse Events (TEAEs)

- **Expected cytopenia (Grade 1-4)** associated with lymphodepletion in all patients
- **Cytokine release syndrome (CRS):** 31 of 32 (97%) patients infused with IMA203 experienced CRS of any Grade
 - 29 patients had Grade 1 or 2 CRS
 - 2 patients had Grade 3 CRS (both in phase 1a); recovered to Grade ≤ 2 after 3 and 4 days, respectively
- **Low-moderate ICANS¹:** 5 of 32 (16%) patients infused with IMA203 experienced Grade 1 or 2 ICANS (all in phase 1a)
- **No dose-dependent increase of CRS and ICANS**
- **No additional DLT²**

Data cut-off – 06-Sept-2022

IMA203

One patient that started lymphodepletion in Phase 1a died from sepsis of unknown origin and did not receive IMA203 T cells, patient reported earlier and not shown; CRS and ICANS graded by CARTOX criteria (Neelapu *et al.*, 2018);

¹ ICANS: Immune effector cell-associated neurotoxicity syndrome; ² DLT: dose-limiting toxicity, one DLT in phase 1a at DL2 reported on March 17, 2021

16

Frequency of Observed Objective Responses

Improved ORR and Confirmed ORR at Higher Dose and in Phase 1b Cohort A

	Phase 1a		Phase 1a + Phase 1b	Phase 1b only
	All pts (DL1-4)	DL4 pts only ¹	DL4/DL5 pts only ¹	All pts (DL4/DL5) ¹
Patients Treated	27	7	12	5
ORR (~6 weeks)²	48% (13/27)	57% (4/7)	67% (8/12)	80% (4/5)
cORR (~12 weeks)³	19% (5/27)	29% (2/7)	50% (6/12)*	80% (4/5)*

- Higher ORR and confirmed ORR observed at doses above 1 billion TCR-T cells (DL4, DL5)
- Early trends towards higher ORR and confirmed ORR observed in Phase 1b vs. Phase 1a patients

Data cut-off – 06-Sept-2022

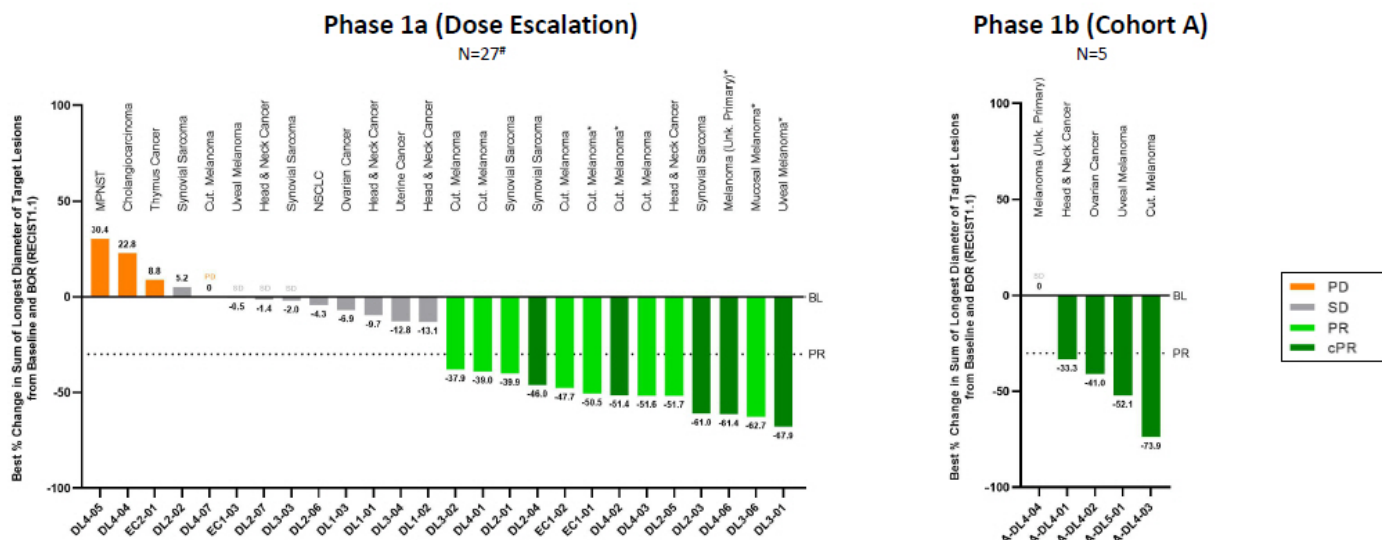
IMA203

¹ All patients received $>1 \times 10^6$ total transduced viable CD8 T cells; ² ORR: Objective response rate (partial responses) according to RECIST 1.1 at first scan post infusion (~6 weeks); ³ Confirmed ORR (cORR): Confirmed objective response rate (confirmed partial responses) according to RECIST 1.1 at second scan post infusion (~12 weeks); * 1 patient with SD at ~6-week scan with pending ~12-week scan considered as non-responder for cORR.

17

Best Overall Response

IMA203 Continues to Deliver Objective Responses in Major Solid Tumor Types



Confirmed objective responses across a broad spectrum of different tumor types such as cutaneous melanoma, uveal melanoma, head and neck cancer, ovarian cancer, synovial sarcoma

Data cut-off – 06-Sept-2022

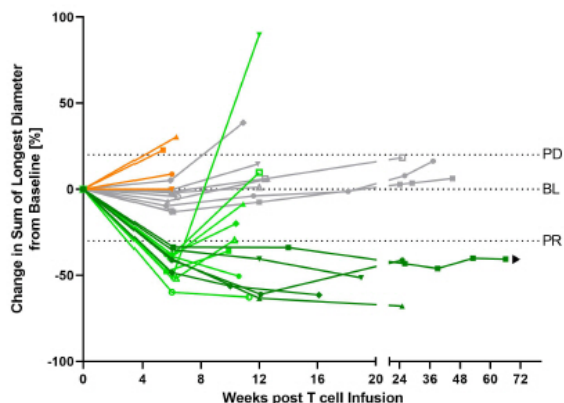
IMA203 [#] Maximum change of target lesions and RECIST 1.1 BOR at different timepoints; ^{*} Synovial sarcoma patient (DL3) PD at week 6 not shown as target lesions were not evaluable; PD: Progressive disease; SD: Stable disease; PR: Partial response; cPR: Confirmed partial response; BL: Baseline

Responses over Time

Encouraging Early Signs for Improved Durability at Higher Dose and in Phase 1b Patients

Phase 1a (Dose Escalation)

N=27*

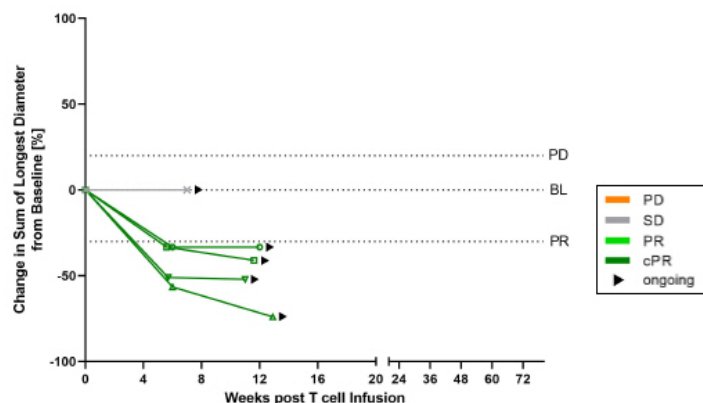


Best overall response (RECIST1.1)

cPR	PR	SD	PD
DL2-03	EC1-01	DL1-01	EC2-01
DL2-04	EC1-02	DL1-02	DL4-04
DL3-01	DL2-01	DL1-03	DL4-05
DL4-02	DL2-05	EC1-03	DL4-07
DL4-06	DL3-02	DL2-02	
	DL3-06	DL2-06	
	DL4-01	DL2-07	
	DL4-03	DL3-03	
		DL3-04	

Phase 1b (Cohort A)

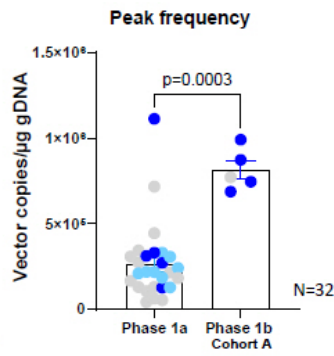
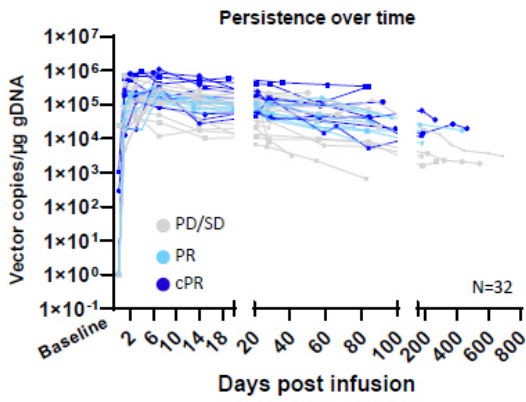
N=5



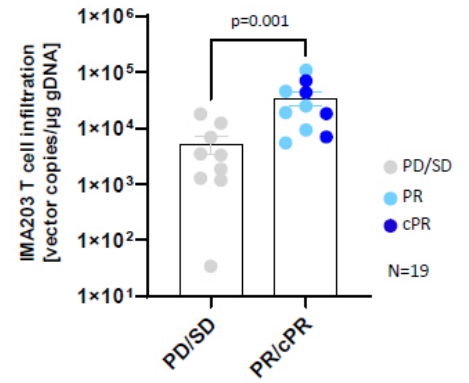
cPR	SD
A-DL4-01	A-DL4-04
A-DL4-02	
A-DL4-03	
A-DL5-01	

Data cut-off - 06-Sept-2022

High IMA203 T cell engraftment and persistence in peripheral blood



IMA203 T cell infiltration into tumor correlates with objective responses¹



Data cut-off – 06-Sept-2022

ACTengine® IMA203 Product Manufacturing

Targeting Higher Robustness, Favorable Product Attributes, Faster Turn Around Time

Accelerated Product Release



Leukapheresis

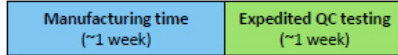


ACTengine® clinical programs: ~3 weeks



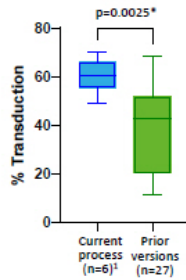
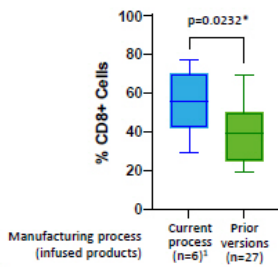
Infusion-Ready

Faster ACTengine®: expected ~2 weeks



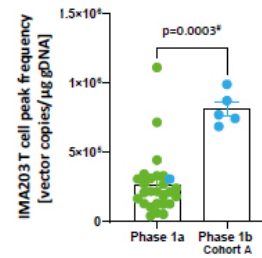
Implementation planned

Manufacturing Improvements Implemented in Phase 1b Enhance Key Features of the Cell Product



All Phase 1b cell products were manufactured with the current, optimized process including manufacturing improvements such as

- ✓ Monocyte depletion
- ✓ Serum-free transduction

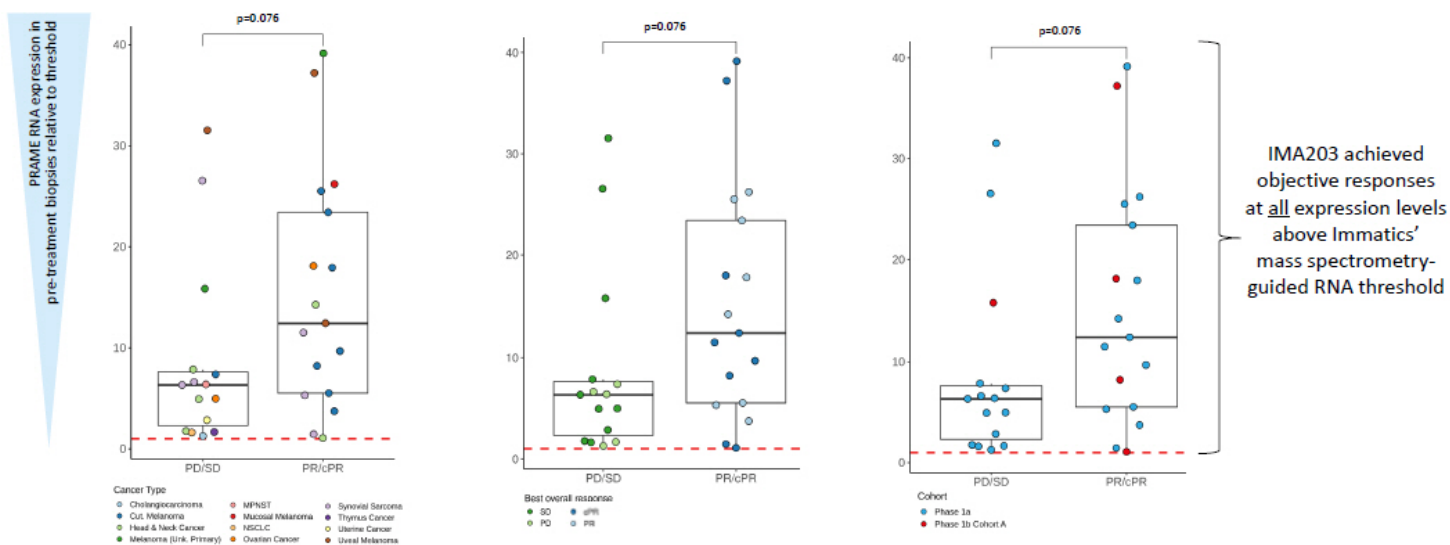


Significantly higher peak frequencies in Phase 1b patients infused with current, optimized product version

¹Includes 5 IMA203 products infused into Phase 1b cohort A patients, and 1 product infused into Phase 1a patient at DL3; * Unpaired t test; ²Mann-Whitney U test, 1 patient in Phase 1a at DL3 received ~0.5 x 10⁹ total transduced viable CD8 T cells manufactured with current process

PRAME Expression in Tumors from Screened Patients (N=32)

Highlighting Tumor Types (left), Type of Best Overall Response (middle) and Study Cohort (right)

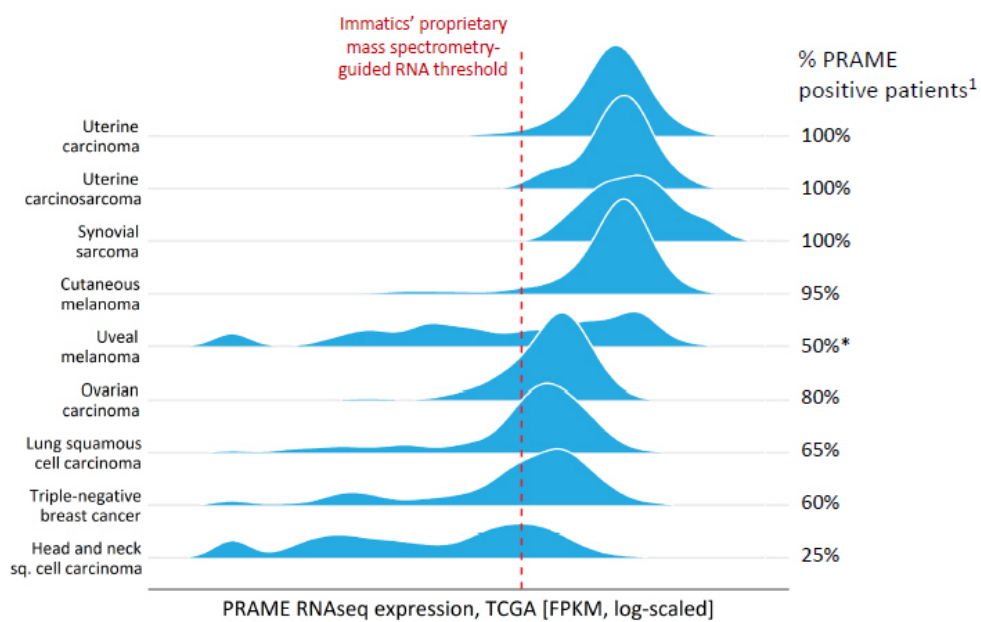


IMA203 has the potential to provide clinical benefit for all PRAME biomarker-positive cancer patients

Data cut-off – 06-Sept-2022

PRAME Expression – RNAseq Data

Combined with Immatics' Mass Spectrometry-guided RNA Threshold for Prevalence Prediction



IMA203 TCR-T Has the Potential to Reach a Large Patient Population

~39,000 Patients per Year in the US only

Selected Indications		Incidence	R/R Incidence	PRAME Positive	Patient Population
Initial indications of interest based on PRAME prevalence, patient population size and observed clinical responses	Cut. Melanoma	99,800	7,700	95%	2,999
	Uveal Melanoma	1,500	800	90%	295
	Ovarian Carcinoma	19,900	12,800	80%	4,198
	Uterine Carcinoma	62,700	10,700	100%	4,387
	Uterine Carcinosarcoma	3,300	1,900	100%	779
	Synovial Sarcoma	1,000	400	100%	164
	Squamous NSCLC	57,000	34,600	65%	9,221
	Small Cell Lung Cancer	31,900	19,400	55%	4,375
	Cholangiocarcinoma	8,000	7,000	35%	1,005
	Adeno NSCLC	91,200	55,300	25%	5,668
	Breast Carcinoma	290,600	43,800	25% TNBC: 60%	4,490
	HNSCC	66,500	15,100	25%	1,548

TOTAL ~39,000
annually in the US

Multiple opportunities to broaden patient reach and patient benefit:

- Expand beyond US population
- Expand into other indications such as kidney, esophageal, bladder, liver cancer, other sarcoma subtypes through indication-specific or indication-agnostic label expansion
- Move into earlier lines of therapy (R/R Incidence → Incidence)
- Inclusion of patients with lower PRAME-threshold

IMA203 Monotherapy – Conclusions

ACTEngine® IMA203 Targeting PRAME Offers a Unique Opportunity for Solid Cancer Patients

IMA203 monotherapy Phase 1a and Phase 1b cohort A summary:

- IMA203 continues to be well tolerated with manageable safety profile
- Confirmed responses across a broad spectrum of different solid tumor types in heavily pre-treated patients
- Positively evolving durability profile for patients treated with higher doses and in phase 1b
- Clinical validation of PRAME biomarker threshold and associated prevalences
- **We have clinically validated PRAME as one of the largest known T cell targets for solid cancers to date**

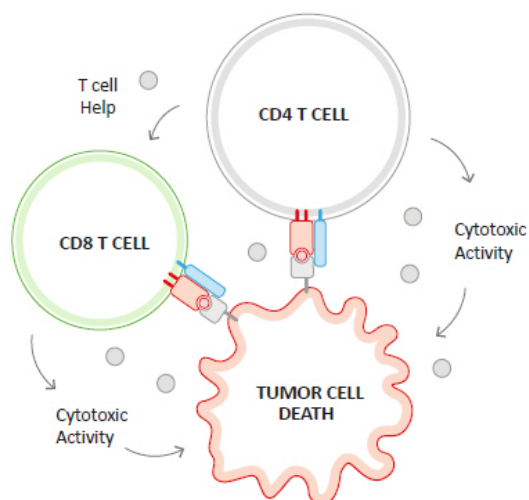
IMA203 development strategy:

- Transition to indication-specific development strategy
- Three Phase 1b expansion cohorts ongoing each designed to establish safety, evaluate the observed objective response rate, demonstrate durability & provide the trigger for registration trials

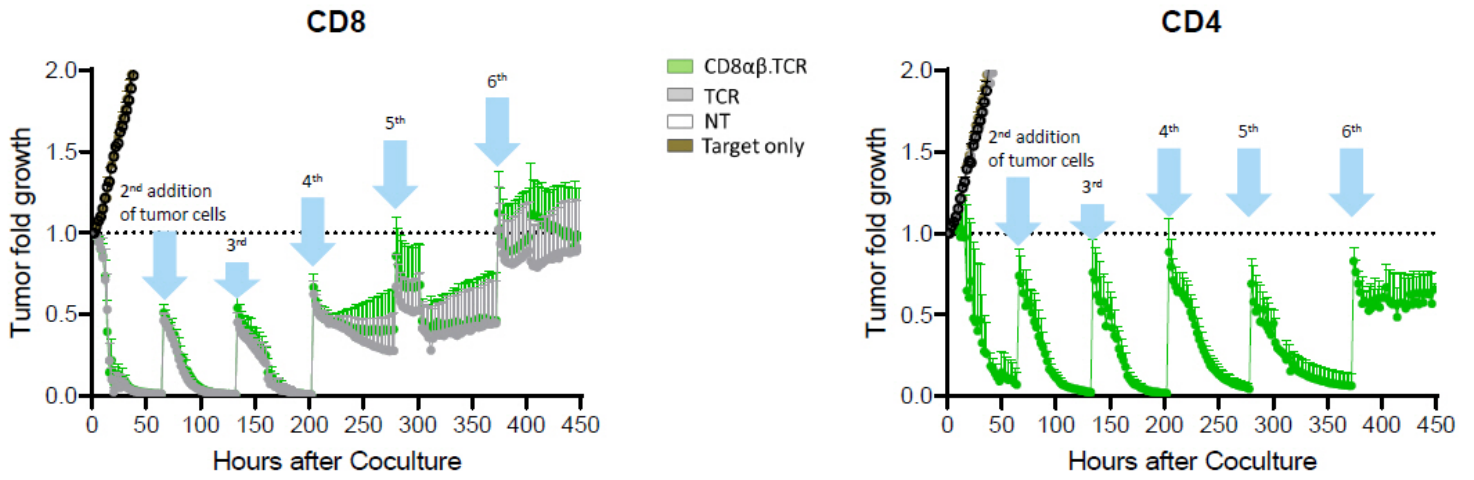
Data highlight the clinical potential of IMA203 TCR-T to achieve meaningful benefit for a large patient population

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 suggest a relevant role of engineered CD4 T cells in maintaining durable tumor responses over a long period of time¹
- 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)



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

Comprehensive PRAME Strategy

To Deliver Meaningful Clinical Benefit to Patients with PRAME-positive Cancers



¹ RP2D (target dose) determined at DL4, exploration of higher dose (DL5) ongoing; 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 ongoing in DL3 prior to patient treatment at Target Dose (DL4), exploration of higher dose (DL5) planned; ⁵ Demonstrated to be important for long-term remission: Melenhorst et al. 2022 Nature, Bai et al. 2022 Science Advances



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 density¹:
100-1,000 copies/cell

Identified and validated by XPRESIDENT® quant. mass spectrometry platform

TCR

High-affinity, specific TCR targeting MAGE4/8

High functional avidity²:
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 POPULATION³

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

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 density¹:
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 avidity²:
~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

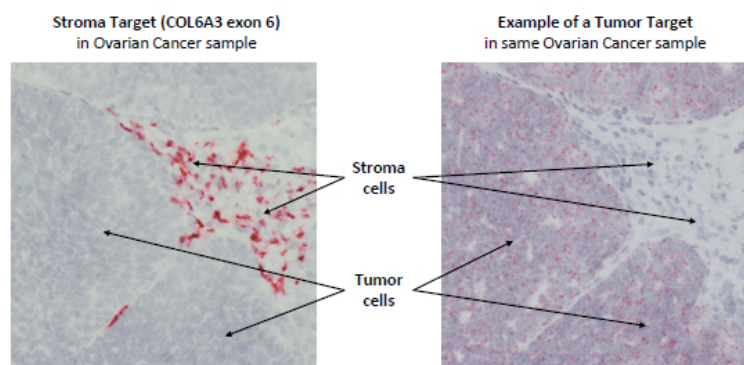
PATIENT POPULATION³

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%

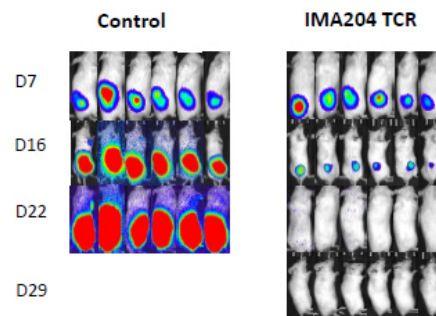
IMA204 provides a promising therapeutic opportunity for a broad patient population as monotherapy or in combination with TCR-T cells directed against tumor targets

ACTengine® IMA204 – High Affinity, CD8-independent TCR

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



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



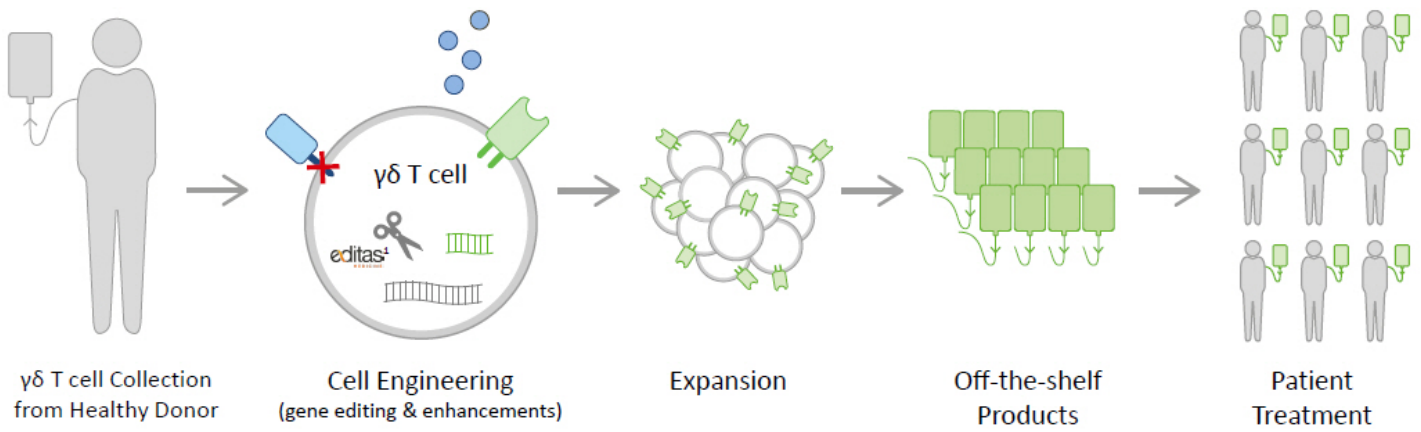
CD8-independent TCR leads to tumor eradication in all mice treated

Affinity matured CD8-independent, next-generation TCR engages both CD4 and CD8 T cells without the need of CD8 co-transduction



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

ACTallo® – Immatics' Allogeneic Cell Therapy Approach



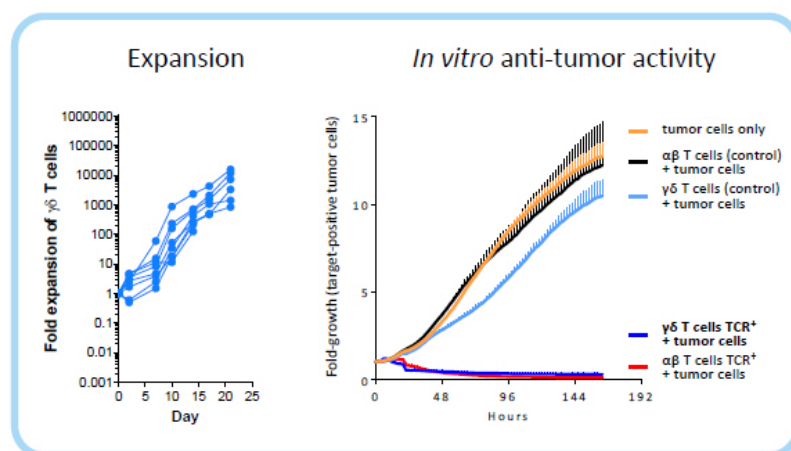
- **Off-the-shelf cell therapy**, no need for personalized manufacturing → reduced logistics and time to application
- **Potential for hundreds of doses** from one single donor leukapheresis → lower cost of goods
- **Use of healthy donor material** provides standardized quality and quantity of starting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

Why $\gamma\delta$ T cells?

$\gamma\delta$ T cells Are Well Suited for an Off-the-shelf Cell Therapy Approach

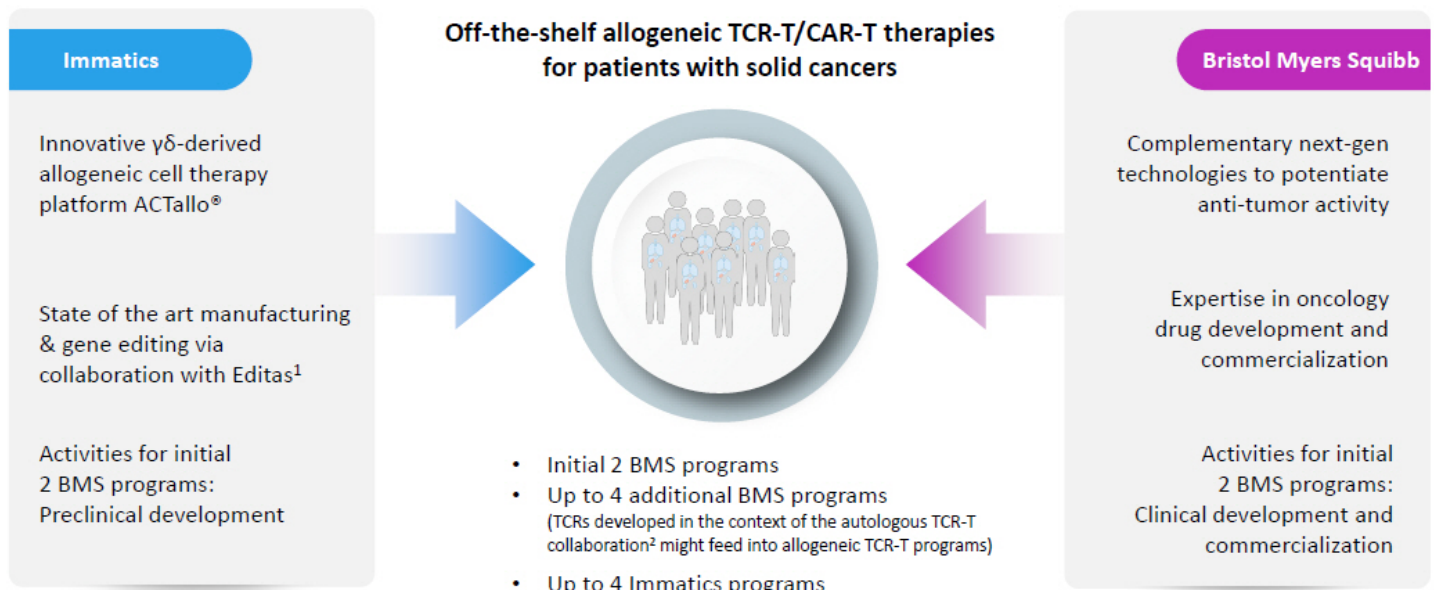
$\gamma\delta$ T cells

- ✓ 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 $\alpha\beta$ TCR or CAR constructs



Immatic and Bristol Myers Squibb – Allogeneic Multi-program Collaboration

Leveraging Complementary Technologies & Capabilities for the Benefit of Cancer Patients

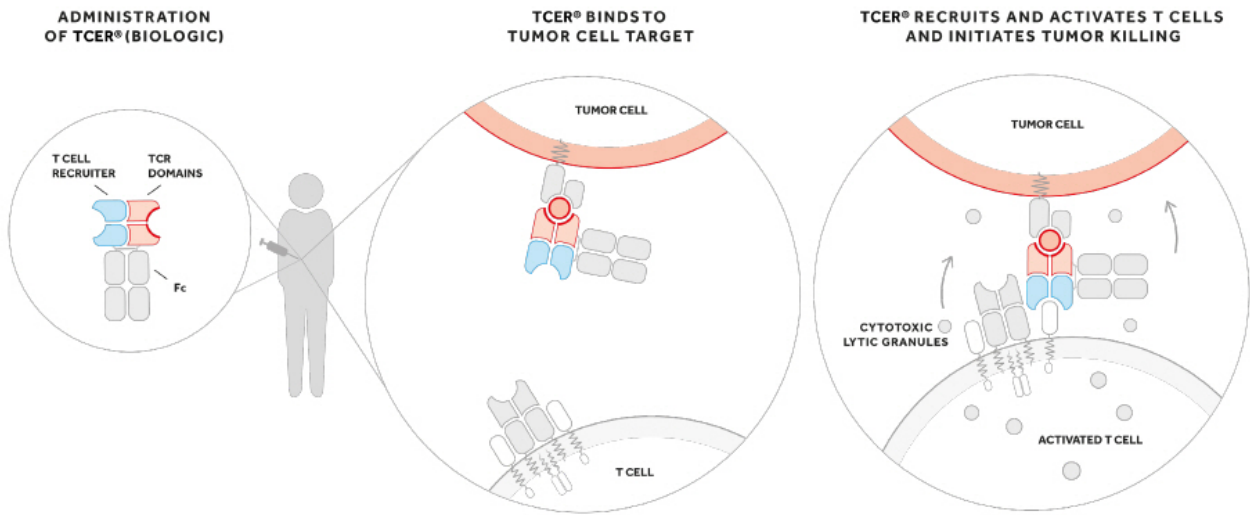


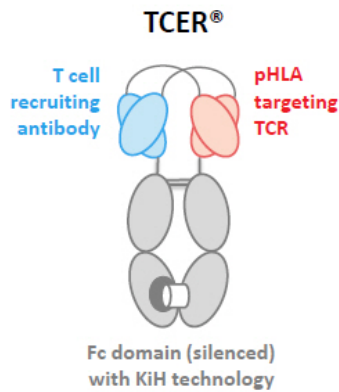


TCER[®] – TCR Bispecifics

TCER® – Mechanism of Action

Immatics' Off-the-Shelf TCR Bispecifics Approach





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

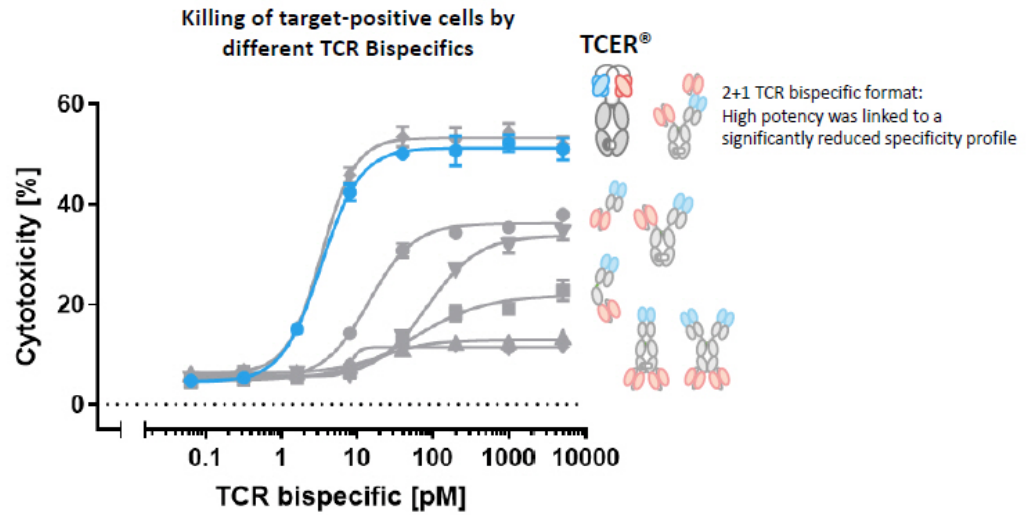
T cell recruiting antibody

- ✓ **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 manufacturability³ and low cost of goods
- ✓ Superior anti-tumor activity⁴ compared to six alternative bispecific formats
- ✓ Half-life of several days expected in humans

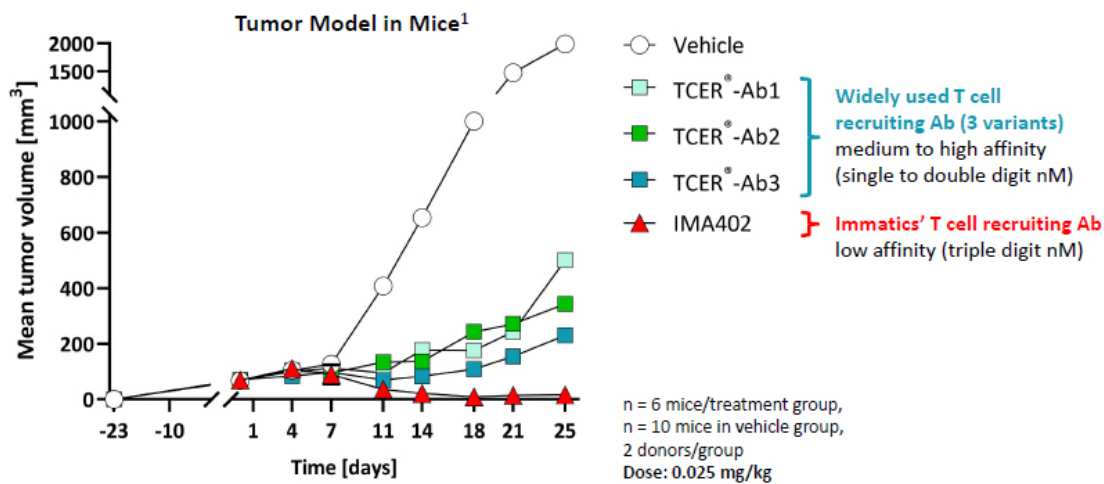
Our TCER® format is designed to maximize efficacy while minimizing toxicities in patients



- 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 specificity¹ 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**

TCER® Format Is Designed for Optimized Efficacy and Safety

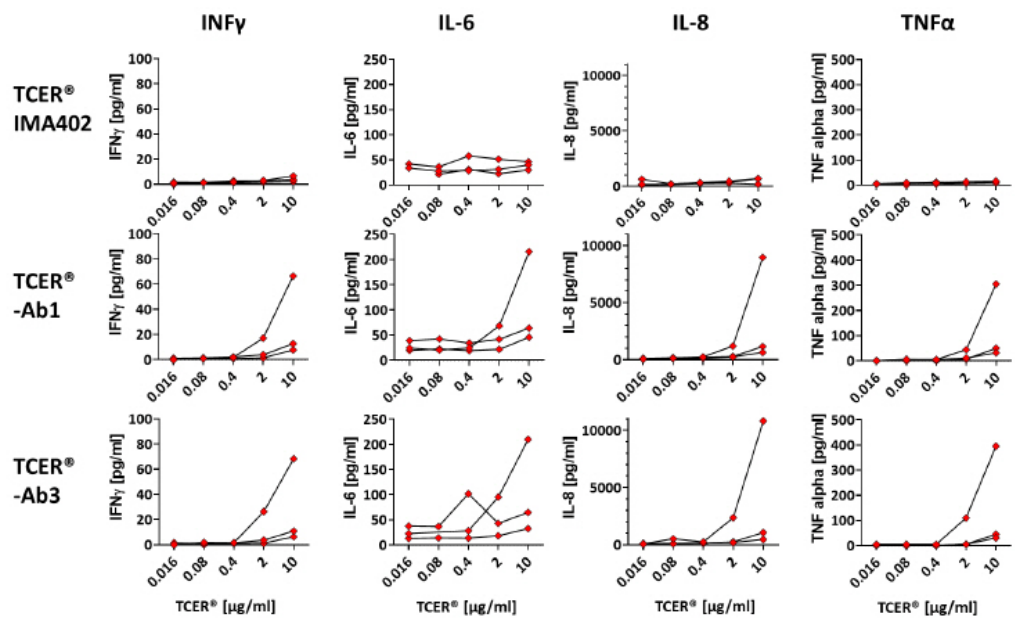
Superior Tumor Control Using a Novel, Low-Affinity Recruiter



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

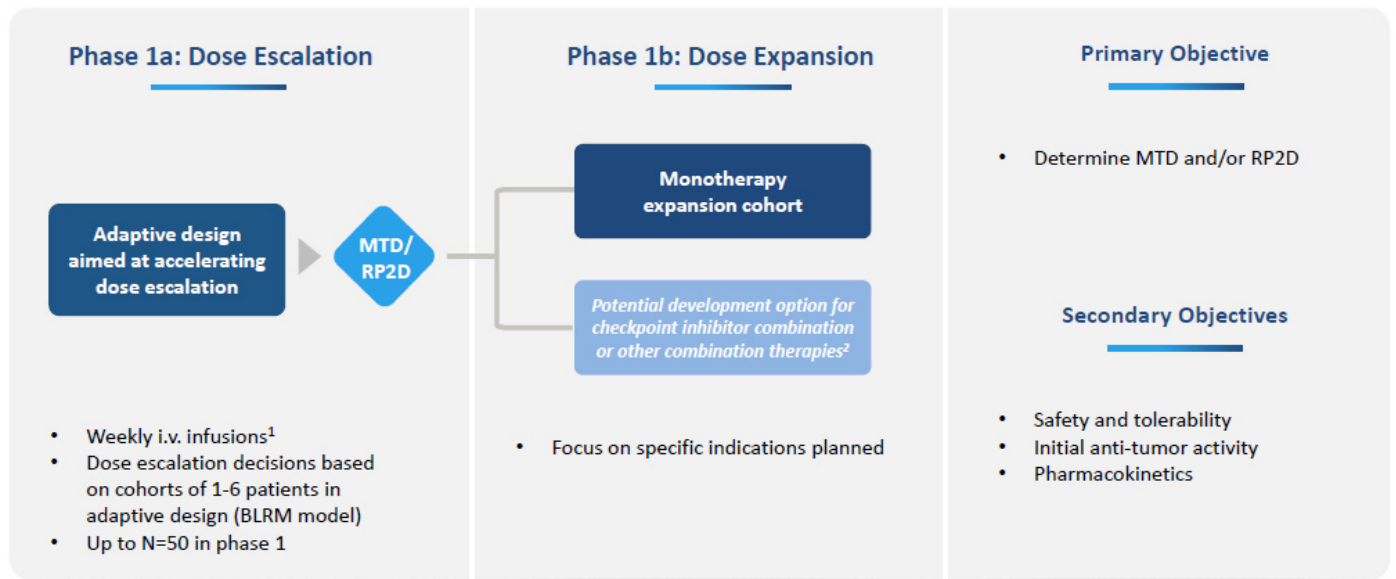
TCER® Format Is Designed for Optimized Efficacy and Safety

Reduced Target-Unrelated Recruiter-Mediated Cytokine Release using a Low-Affinity Recruiter



Whole blood cytokine release assay
 N=3 HLA-A*02-positive donors
 N=16 cytokines tested,
 4 exemplary cytokines shown

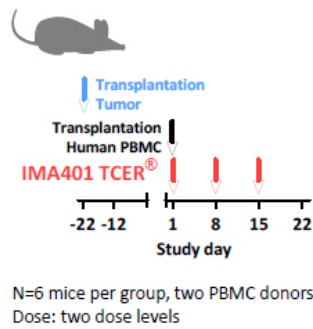
	IMA401	IMA402	IMA40X
	MAGEA4/8	PRAME	Undisclosed targets
Status	Start of Phase 1 trial in May 2022	Submission of CTA/IND application 2Q 2023, Phase 1/2 trial in 2023	TCER® engineering and preclinical testing ongoing
Preclinical Proof-of-concept – Efficacy / Safety	<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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 		



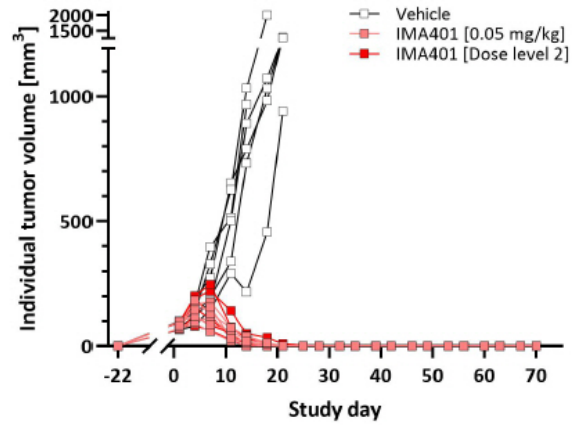
TCER[®] IMA401 Targeting MAGEA4/8

Product Candidate in Clinical Development with Bristol Myers Squibb

Treatment schedule



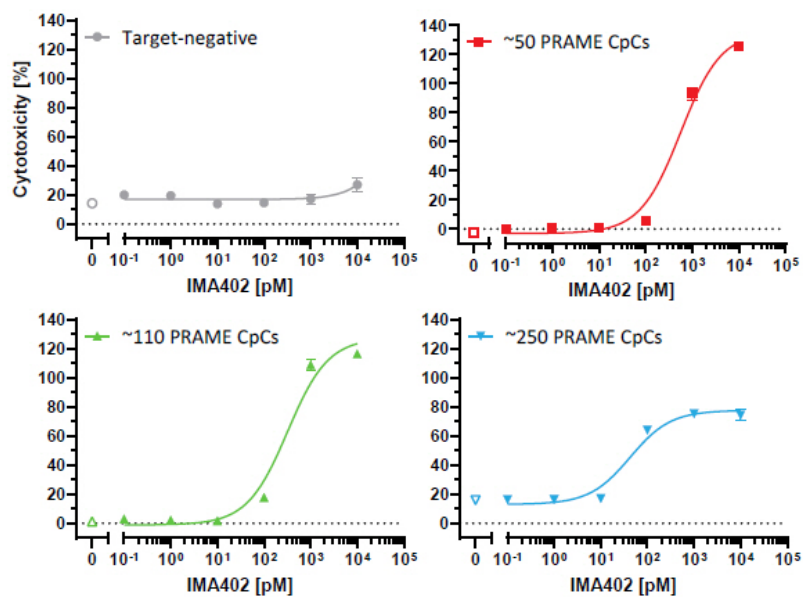
Tumor Model in Mice¹



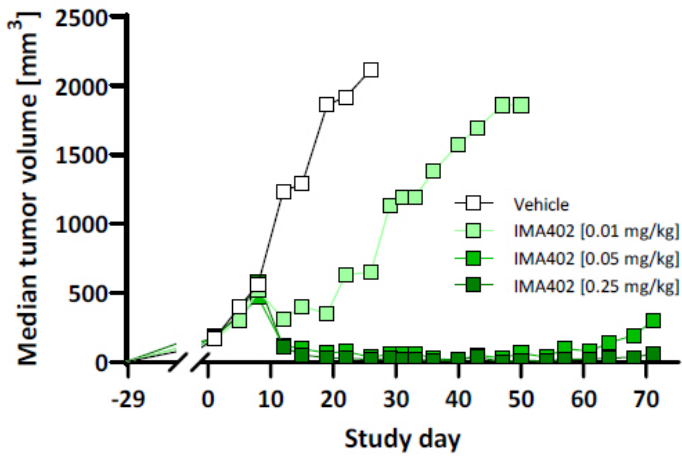
- **Complete remissions observed in all animals** even at low IMA401 dose of 0.05 mg/kg
- No detectable outgrowth of tumors during **prolonged observation period of 70 days**

TCER® IMA402 Targeting PRAME – Efficacy Assessment *in vitro*

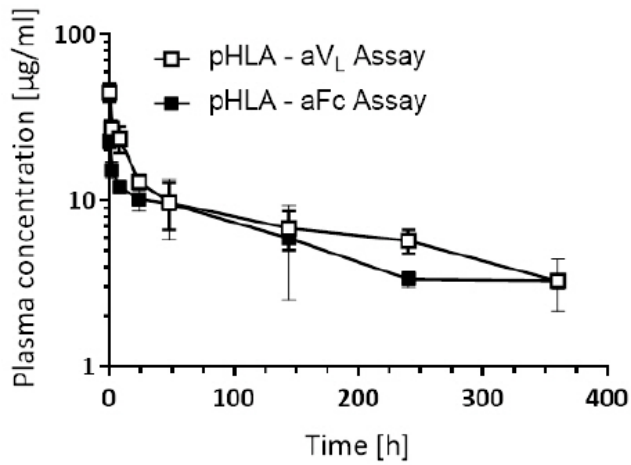
Tumor Cell Killing at Low Physiological PRAME Peptide Levels



- TCER® IMA402 induces killing of tumor cells with PRAME target copies as low as 50 CpCs
- Physiological PRAME levels detected in majority of cancer tissues from patients are 100 – 1000 CpCs



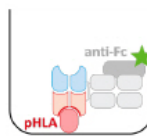
- Dose-dependent efficacy of IMA402 in cell line-derived *in vivo* mouse model
- Durable shrinkage of large tumors including complete responses over prolonged period
- Sufficiently high drug doses are key to achieving desired anti-tumor effect



pHLA - aV_L Assay



pHLA - aFc Assay

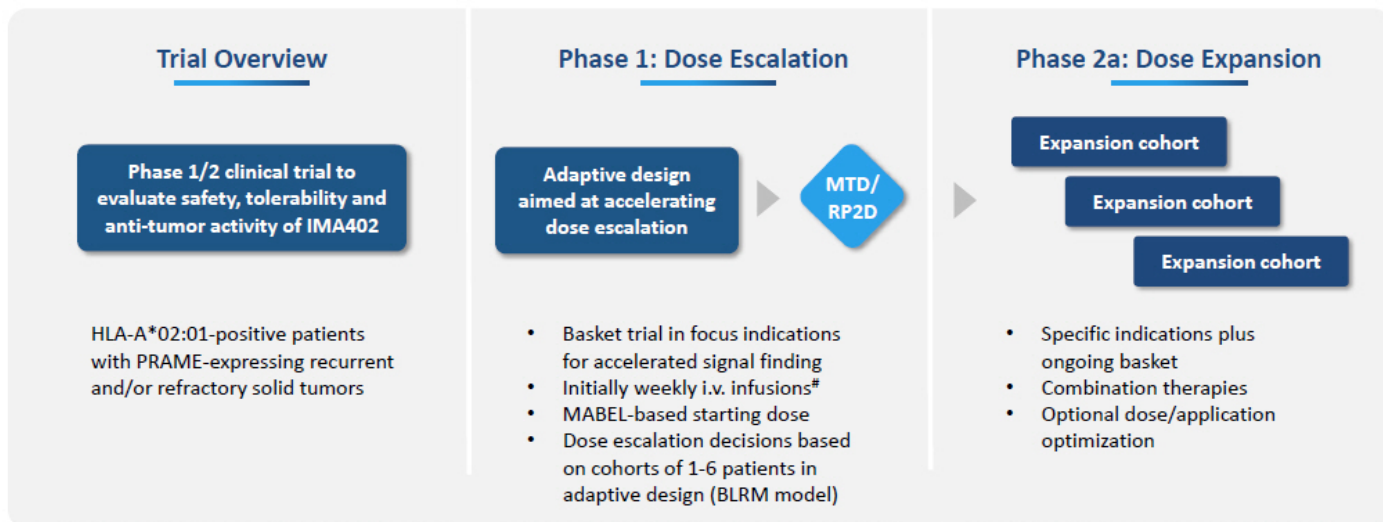


- IMA402 shows a terminal serum half-life of \approx 8 days in mice
- IMA402 will be initially dosed weekly in the clinical trial
- Dosing frequency may be adapted based on clinical data

TCER® IMA402 Phase 1/2 Clinical Trial to Start in 2023

CMC and supply activities on track for clinical trial

- Manufacturing process development completed
- High titer (>3.5 g/L) and good stability allowing liquid formulation





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



True Targets via XPRESIDENT® technology platform

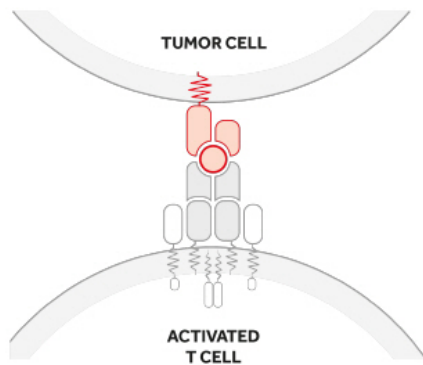
- are naturally presented on tumor tissues as identified by mass-spec
- are absent or presented at only low levels on normal tissues
- are presented at high copy numbers to trigger a pharmacological response

Right TCRs via XCEPTOR® technology platform

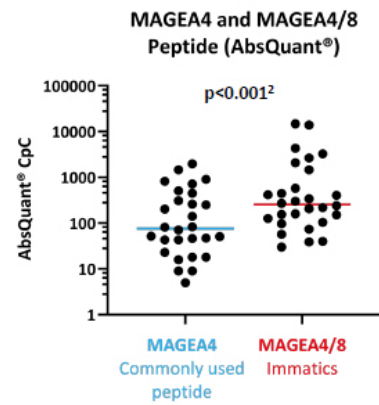
- recognize the target peptide with high affinity and specificity
- show selective killing of tumor cells
- are developed to be suitable for two different therapeutic modalities, Cell Therapies and TCR Bispecifics

Immatics' Unique Capability – Identification of the most Relevant Target

Example of MAGEA4/8 Peptide Target

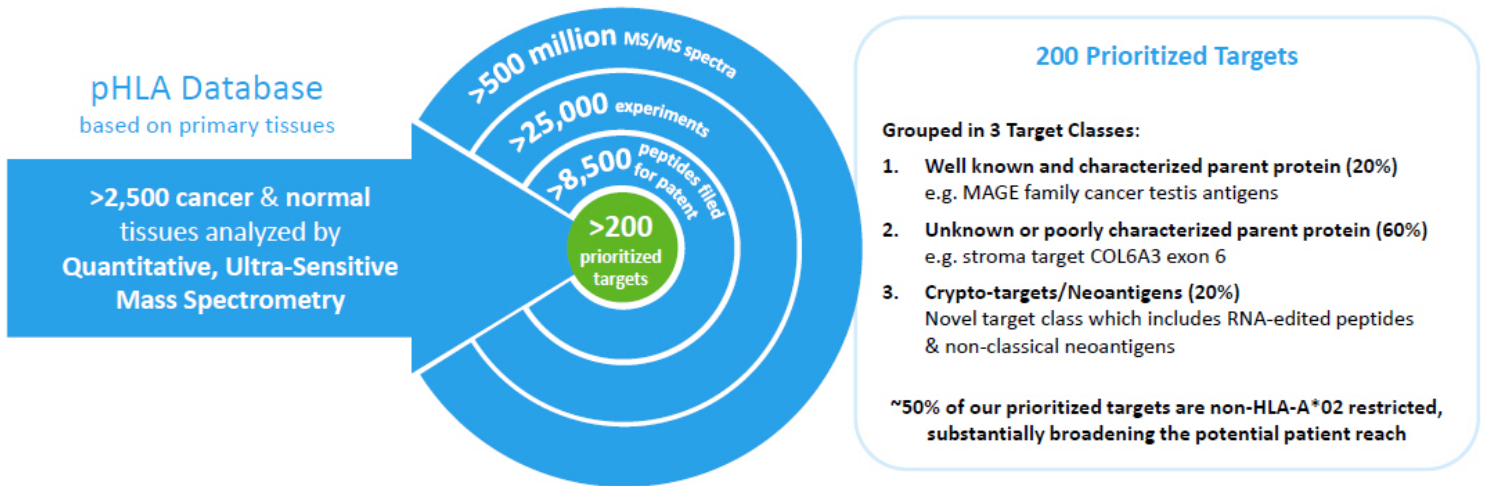


Ranking of pHLA targets



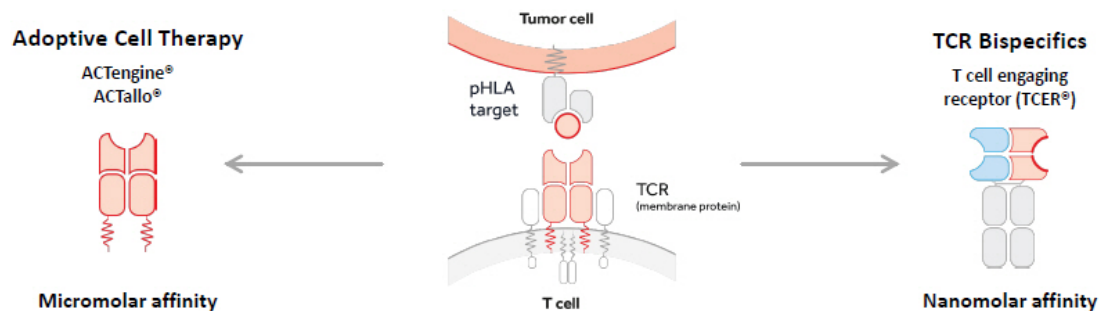
XPRESIDENT® quantitative information on target density¹ between peptides originating from the same source protein

MAGEA4/8 target is presented at >5-fold higher target density¹ than a commonly used MAGEA4 target peptide



Development of the Right TCR – XCEPTOR® Technology

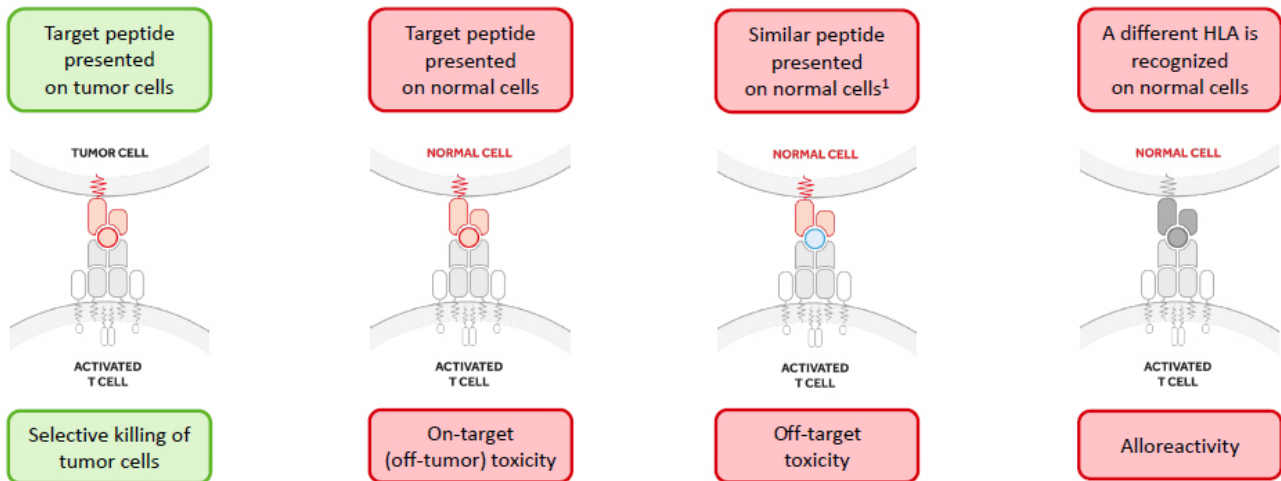
TCR Discovery and Engineering for ACT and TCR Bispecifics



- Fast, efficient and highly sensitive discovery of highly specific, natural TCRs
- Protein engineering capabilities to design and mature 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 discovery¹ and TCR maturation²

Optimal Target Selection & TCR Specificity for Minimizing Safety Risks

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



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



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
(InflaRx, Medigene, NovImmune,
Probiodrug)



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



Cedrik Britten
Chief Medical Officer
>14 yrs pharma & biotech
(GSK, BioNTech)



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



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



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



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



Jordan Silverstein
Head of Strategy
>10 yrs biotech experience
(InflaRx, AAA)

Strong, Focused and Highly Integrated Trans-Atlantic Organization



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



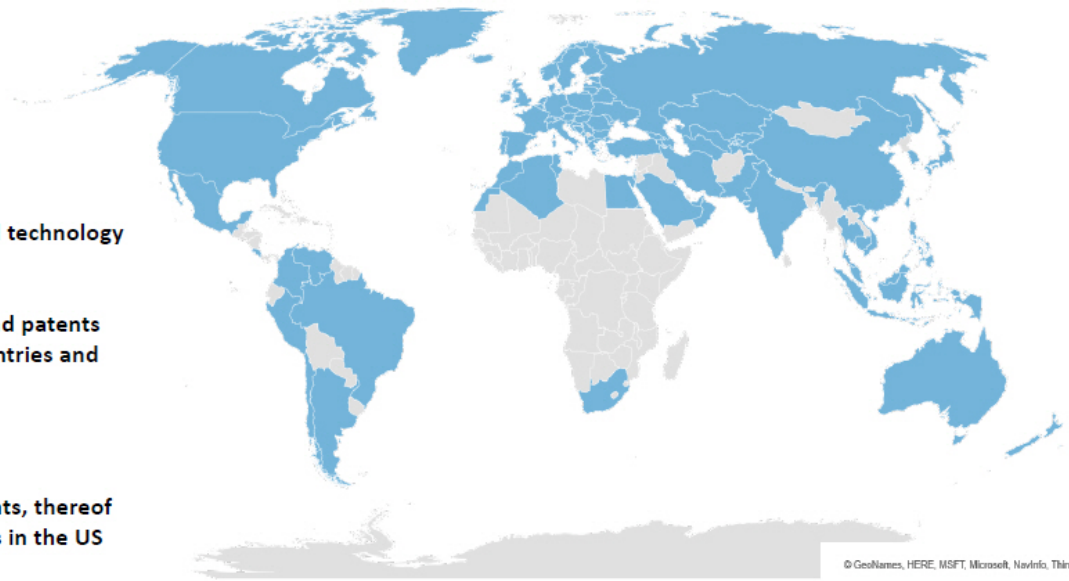
Houston, Texas, ~140 FTEs
Cell therapy development
and manufacturing



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

Clinical Development of TCR-T and TCR Bispecifics



Advance clinical development of ACTEngine® IMA203 candidates

- Multiple IMA203 Ph1b expansion cohorts:
Monotherapy, checkpoint combination, 2nd-gen approach IMA203CD8
- Next data read-outs with meaningful data across all cohorts in 2023
- Additional ACTEngine® programs in clinical and preclinical development



Further clinical development of TCER® candidates

- Ongoing Ph1 trial for IMA401 (MAGEA4/8) (start in May 2022)
- IMA402 Ph 1/2 clinical trial on track to start in 2023; submission of CTA/IND application 2Q 2023
- Innovative TCER® program(s) IMA40X in preclinical development

Solid cash runway into 2025 to reach multiple value inflections points across our portfolio

Delivering

the Power of T cells
to Cancer Patients



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