
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

May 10, 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 May 10, 2022, Immatics N.V. (the “Company”) announced the initiation of a Phase 1 clinical trial with its T cell engaging receptor (TCER®) IMA401 for patients with recurrent and/or refractory solid tumors. IMA401 is the most advanced product candidate from Immatics’ TCR Bispecific pipeline targeting an HLA-A*02-presented peptide derived from both MAGEA4 and MAGEA8. TCER® IMA401 will be developed in collaboration with Bristol Myers Squibb. Immatics is responsible for conducting the Phase 1 clinical trial. The primary objectives of the clinical trial (NCT#05359445) are to determine the maximum tolerated dose (MTD) and/or the recommended phase 2 dose (RP2D) for IMA401 in biomarker-positive (HLA-A*02:01 and MAGEA4/8) patients with recurrent and/or refractory solid tumors. Secondary objectives are to characterize safety and tolerability, evaluate initial anti-tumor activity and assess pharmacokinetics of IMA401. The Phase 1 trial consists of a dose-escalation (Phase 1a) portion that will be followed by a dose-expansion (Phase 1b) portion to treat patients at the recommended dose level. The trial is planned to be conducted at up to 15 centers in Germany, with the first site already being initiated. The Phase 1 trial is designed to enroll approximately 50 patients.

In connection with the initiation of the Phase 1 clinical trial, the Company issued a press release, a copy of which is attached hereto as Exhibit 99.1, and made available an updated investor presentation on its website, a copy of which is attached hereto as Exhibit 99.2. 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 May 10, 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.

INCORPORATION BY REFERENCE

This Report on Form 6-K (other than Exhibits 99.1 and 99.2) shall be deemed to be incorporated by reference into the registration statements on Form F-3 (Registration Nos. 333-258351 and 333-240260) of Immatics N.V. and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press release dated May 10, 2022
99.2	Presentation dated May 10, 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: May 10, 2022

IMMATICS N.V.

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



PRESS RELEASE

Immatics Initiates Phase 1 Clinical Trial to Evaluate Lead TCR Bispecific IMA401 in Patients with Advanced Solid Tumors

- Patient enrollment for IMA401 Phase 1 trial started at first clinical site in Germany
- The study will evaluate safety, tolerability, and initial anti-tumor activity of IMA401 in patients with recurrent and/or refractory solid tumors
- TCER[®] IMA401 targets MAGEA4/8 and will be developed in collaboration with Bristol Myers Squibb

Tuebingen, Germany and Houston, Texas, May 10, 2022 – [Immatics N.V.](#) (NASDAQ: IMTX, “Immatics”), a clinical-stage biopharmaceutical company active in the discovery and development of T cell-redirecting cancer immunotherapies, today announced the initiation of a Phase 1 clinical trial with its T cell engaging receptor (TCER[®]) IMA401 for patients with recurrent and/or refractory solid tumors. IMA401 is the most advanced product candidate from Immatics’ TCR Bispecific pipeline targeting an HLA-A*02-presented peptide derived from both MAGEA4 and MAGEA8. TCER[®] IMA401 will be developed in collaboration with Bristol Myers Squibb. Immatics is responsible for conducting the Phase 1 clinical trial.

The primary objectives of the clinical trial ([NCT#05359445](#)) are to determine the maximum tolerated dose (MTD) and/or the recommended phase 2 dose (RP2D) for IMA401 in biomarker-positive (HLA-A*02:01 and MAGEA4/8) patients with recurrent and/or refractory solid tumors. Secondary objectives are to characterize safety and tolerability, evaluate initial anti-tumor activity and assess pharmacokinetics of IMA401. The Phase 1 trial consists of a dose-escalation (Phase 1a) portion that will be followed by a dose-expansion (Phase 1b) portion to treat patients at the recommended dose level. The trial is planned to be conducted at up to 15 centers in Germany, with the first site already being initiated. The Phase 1 trial is designed to enroll approximately 50 patients.

“IMA401 is the first TCER[®] candidate from our TCR Bispecifics pipeline entering clinical development, and expands our clinical portfolio with an exciting new TCR-based immunotherapy approach that can be supplied off-the-shelf compared to autologous cell therapies,” said Cedrik Britten, Chief Medical Officer at Immatics. “Our innovative TCER[®] format leads to an extended-half-life and incorporates novel binding-moieties that are designed to maximize efficacy while

minimizing toxicities in patients. Our TCER[®] IMA401 could treat a range of solid tumors and therefore meet currently unmet needs of a broad patient population. This is best achieved with a strong pharma partner which we have found in Bristol Myers Squibb.”

Immatics entered into a [global exclusive license agreement](#) with Bristol Myers Squibb in December 2021 for the IMA401 program under which both companies will collaborate to advance the program through clinical development.

Immatics' TCR Bispecific pipeline includes a second TCER[®] product candidate, IMA402, which targets PRAME. Manufacturing of the clinical IMA402 batch is planned for the second half of 2022 and initiation of the Phase 1 trial is planned in 2023. Immatics' TCER[®] pipeline is further strengthened by additional innovative TCER[®] program(s), IMA40X, in preclinical development.

About IMA401

IMA401 is Immatics' most advanced TCER[®] molecule that targets an HLA-A*02-presented (human leukocyte antigen) peptide derived from two different cancer-associated proteins, melanoma-associated antigen 4 and/or 8 (“MAGEA4/8”). The MAGEA4/8 peptide has been identified and validated by Immatics' proprietary mass spectrometry-based target discovery platform XPRESIDENT[®] and is presented at a 5-fold higher copy number per tumor cell than a MAGEA4 peptide targeted in other clinical trials. Following [preclinical proof-of-concept data](#), including complete remissions of transplanted human-derived tumors in xenograft mouse models, the Phase 1 trial investigates IMA401 in patients with tumors of high MAGEA4/8 prevalence, such as squamous non-small cell lung carcinoma (sqNSCLC), small cell lung cancer (SCLC), head and neck squamous cell carcinoma (HNSCC), bladder, uterine, esophageal and ovarian carcinomas, as well as melanoma, sarcoma subtypes and other solid cancer types.

About TCER[®]

Immatics' half-life extended TCER[®] molecules are antibody-like “off-the-shelf” biologics that leverage the body's immune system by redirecting and activating T cells towards cancer cells expressing a specific tumor target. The design of the TCER[®] molecules enables the activation of any T cell in the body to attack the tumor, regardless of the T cells' intrinsic specificity. Immatics proprietary biologics are engineered with two binding regions: a TCR domain and a T cell recruiter domain. The TCER[®] format is designed to maximize efficacy while minimizing toxicities in patients. It contains a high-affinity TCR domain that is designed to bind specifically to the cancer target peptide on the cell surface presented by an HLA molecule. The antibody-derived, low-affinity T cell recruiter domain is directed against the TCR/CD3 complex and recruits a patient's T cells to the tumor to attack the cancer cells. With a low-affinity recruiter aiming for optimized biodistribution and enrichment of the molecule at the tumor site instead of the periphery, TCER[®] are engineered to reduce the occurrence of immune-related adverse events, such as cytokine release syndrome. In addition, the TCER[®] format consists of an Fc-part conferring half-life

extension, stability, and manufacturability. TCER[®] are “off-the-shelf” biologics and thus immediately available for patient treatment. They can be distributed through standard pharmaceutical supply chains and provide the opportunity to reach a large patient population without the need of specialized medical centers.

- END -

About Immatics

Immatics combines the discovery of true targets for cancer immunotherapies with the development of the right T cell receptors with the goal of enabling a robust and specific T cell response against these targets. This deep know-how is the foundation for our pipeline of Adoptive Cell Therapies and TCR Bispecifics as well as our partnerships with global leaders in the pharmaceutical industry. We are committed to delivering the power of T cells and to unlocking new avenues for patients in their fight against cancer.

For regular updates about Immatics, visit www.immatics.com. You can also follow us on [Twitter](#), [Instagram](#) and [LinkedIn](#).

Forward-Looking Statements:

Certain statements in this press release may be considered forward-looking statements. Forward-looking statements generally relate to future events or Immatics' future financial or operating performance. For example, statements concerning the timing of product candidates and Immatics' focus on partnerships to advance its strategy are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “may”, “should”, “expect”, “intend”, “will”, “estimate”, “anticipate”, “believe”, “predict”, “potential” or “continue”, or the negatives of these terms or variations of them or similar terminology. Such forward-looking statements are subject to risks, uncertainties, and other factors which could cause actual results to differ materially from those expressed or implied by such forward looking statements. These forward-looking statements are based upon estimates and assumptions that, while considered reasonable by Immatics and its management, are inherently uncertain. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Factors that may cause actual results to differ materially from current expectations include, but are not limited to, various factors beyond management's control including general economic conditions and other risks, uncertainties and factors set forth in filings with the SEC. Nothing in this presentation should be regarded as a representation by any person that the forward-looking statements set forth herein will be achieved or that any of the contemplated results of such forward-looking statements will be achieved. You should not place undue reliance on forward-looking statements, which speak only as of the date they are made.

Immatics undertakes no duty to update these forward-looking statements. All the scientific and clinical data presented within this press release 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.

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Immatics Corporate Presentation

May 10, 2022

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Forward-Looking Statements



This presentation ("Presentation") is provided by Immatics N.V. ("Immatics" or the "Company") for informational purposes only. The information contained herein does not purport to be all-inclusive and Immatics nor any of its affiliates nor any of its or their control persons, officers, directors, employees or representatives makes any representation or warranty, express or implied, as to the accuracy, completeness or reliability of the information contained in this Presentation. You should consult your own counsel and tax and financial advisors as to legal and related matters concerning the matters described herein, and, by accepting this presentation, you confirm that you are not relying upon the information contained herein to make any decision.

Forward-Looking Statements. Certain statements in this presentation may be considered forward-looking statements. Forward-looking statements generally relate to future events or the Company's future financial or operating performance. For example, statements concerning timing of data read-outs for product candidates, the clinical trial application for IMA204, IMA301, IMA401, the Company's focus on partnerships to advance its strategy, projections of future cash on hand and other metrics are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may", "should", "expect", "intend", "will", "estimate", "anticipate", "believe", "predict", "potential" or "continue", or the negatives of these terms or variations of them or similar terminology. Such forward-looking statements are subject to risks, uncertainties, and other factors which could cause actual results to differ materially from those expressed or implied by such forward looking statements. These forward-looking statements are based upon estimates and assumptions that, while considered reasonable Immatics and its management, are inherently uncertain. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Factors that may cause actual results to differ materially from current expectations include, but are not limited to, various factors beyond management's control including general economic conditions and other risks, uncertainties and factors set forth in the Company's filings with the Securities and Exchange Commission (the "SEC"). Nothing in this presentation should be regarded as a representation by any person that the forward-looking statements set forth herein will be achieved or that any of the contemplated results of such forward-looking statements will be achieved. You should not place undue reliance on forward-looking statements, which speak only as of the date they are made. Company undertakes no duty to update these forward-looking statements.

No Offer or Solicitation. This communication is for informational purposes only and does not constitute, or form a part of, an offer to sell or the solicitation of an offer to sell or an offer to buy or the solicitation of an offer to buy any securities, and there shall be no sale of securities, in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offer of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended, and otherwise in accordance with applicable law.

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. Clinical study results and associated biomarker studies presented within this presentation are by definition prior to completion of the clinical trial and a clinical study report and, are therefore, preliminary in nature and subject to further quality checks including customary source data verification. This meeting and any information communicated at this meeting are strictly confidential and should not be discussed outside your organization.



Comprehensive TCR Approach

Building a TCR-T Cell Therapy and TCR Bispecifics Pipeline



Clinical PoC for Cell Therapy

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



Differentiated Approach

Unique technologies to identify true cancer targets and right TCRs



Strategic Partnerships

World-leading industry players with synergistic expertise



Therapeutic Opportunity

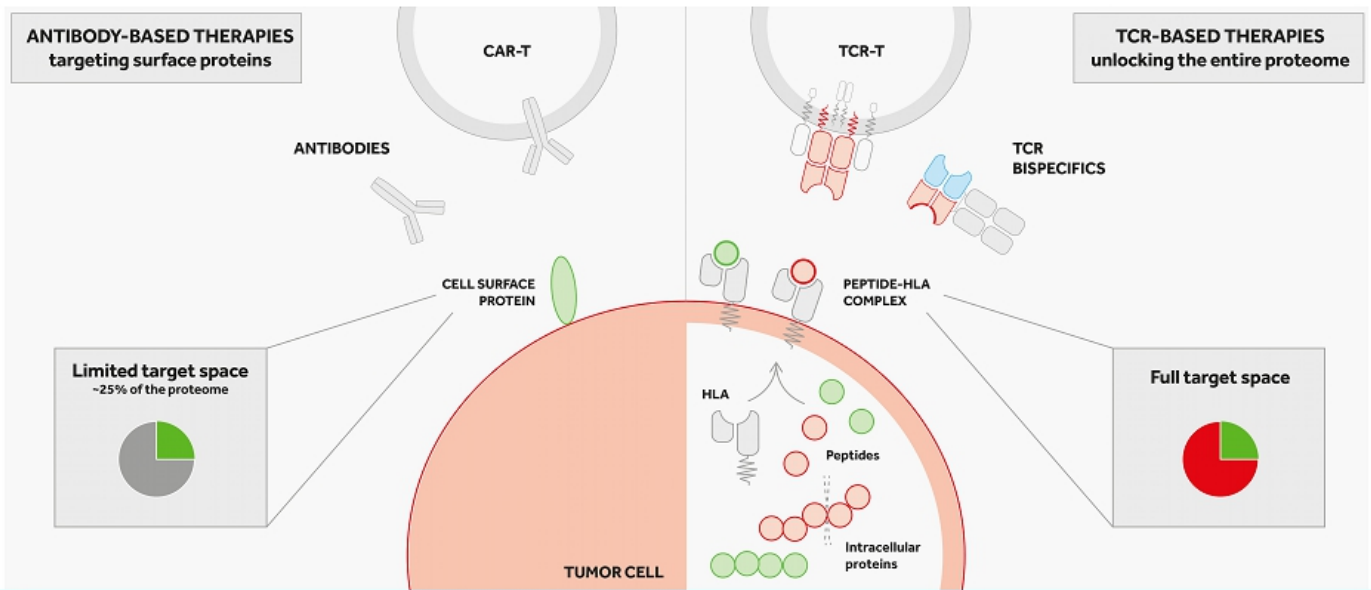
Addressing relevant patient populations across multiple solid cancer indications



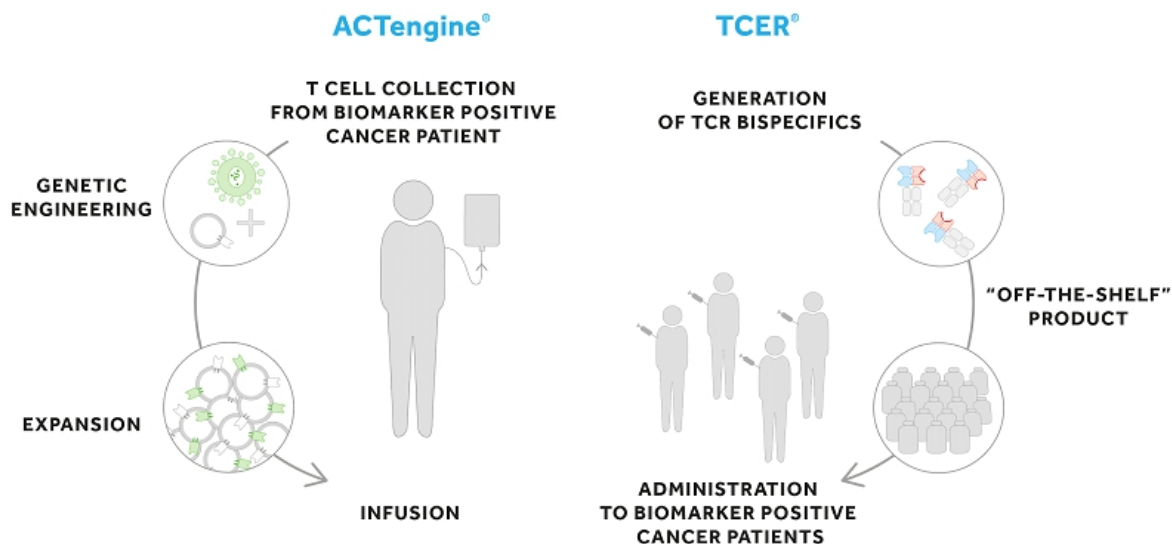
Solid Cash Runway

To reach next value inflection points across our portfolio

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

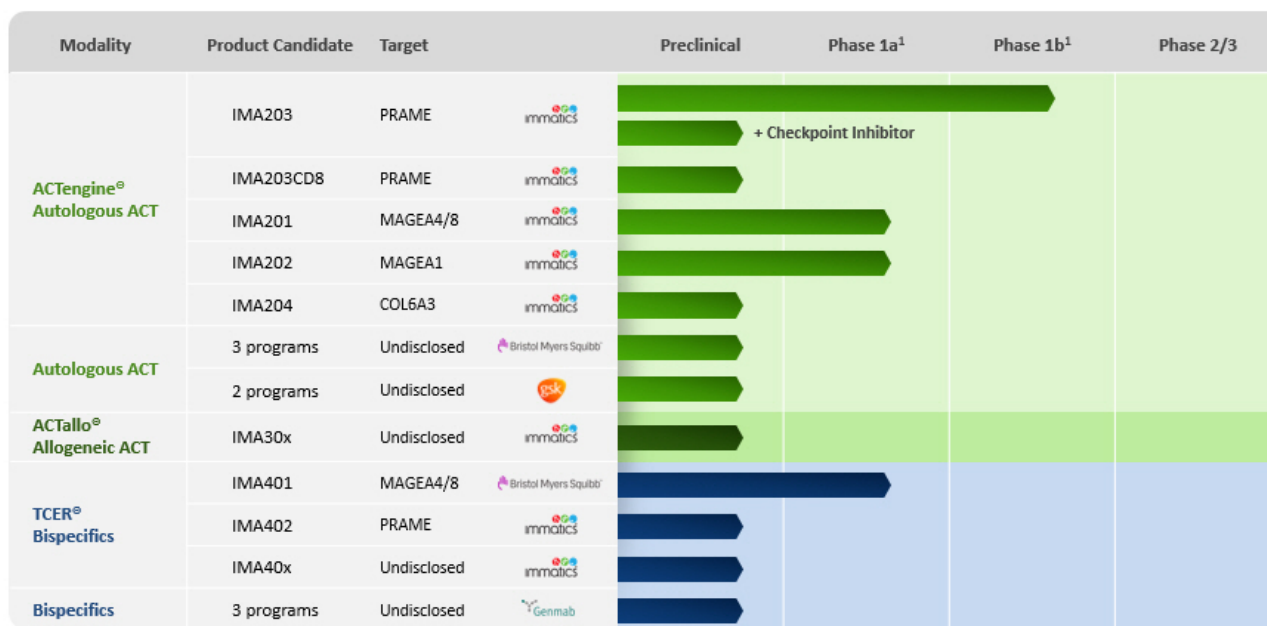


Two TCR-based Therapeutic Modalities



Distinct mechanisms of actions and therapeutic application to address the needs of a broad patient population at different stages of disease and with different types of tumors

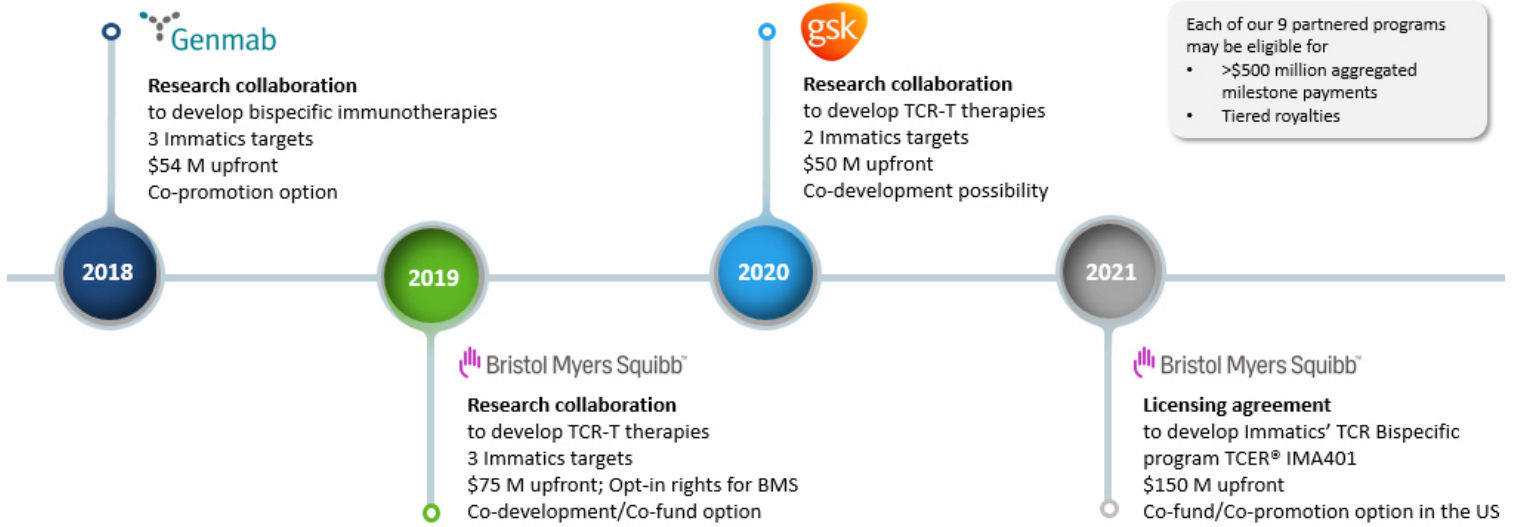
Our Pipeline of TCR-based Adoptive Cell Therapies and Bispecifics



Strategic Collaborations



Synergistic Expertise that Can Foster Transformative Innovations for ACT and Bispecifics



Broadening the clinical framework beyond our proprietary pipeline

	IMA201 / IMA401	IMA202	IMA203 / IMA402	IMA204
	MAGEA4/8	MAGEA1	PRAME	COL6A3 exon 6
Selected solid cancer indications with significant target prevalence¹	Sarcoma Subtypes – up to 80% Squamous NSCLC – 50% HNSCC – 35% Bladder Carcinoma – 30% Esophageal Carcinoma – 25% Uterine Carcinosarcoma – 25% Ovarian Carcinoma – 20% Melanoma – 20%	HCC – 40% Squamous NSCLC – 35% Sarcoma Subtypes – up to 30% Melanoma – 30% Bladder Carcinoma – 20% Esophageal Carcinoma – 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%

IMA200 & IMA400 programs demonstrate relevant expression in multiple solid cancers

Key Features of Our Clinical ACTengine® Programs



Differentiated Targets, TCRs and Cellular Manufacturing Designed to Enhance Safety and Activity

	IMA201	IMA202	IMA203
Peptide Target	MAGEA4/8 shown to be naturally and specifically presented on native tumor tissues at differentiated high peptide target density ¹ 100-1,000 copies/cell	MAGEA1 50-900 copies/cell	PRAME 100-1,000 copies/cell
T cell Receptor (TCR)	Natural TCR ~10 ng/ml	Natural TCR ~15 ng/ml	Pairing-enhanced TCR ~5 ng/ml
T cell Product	7-10 days ³	7-10 days ³	7 days ³



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 density¹:
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 avidity²:
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 DLTs³ & 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

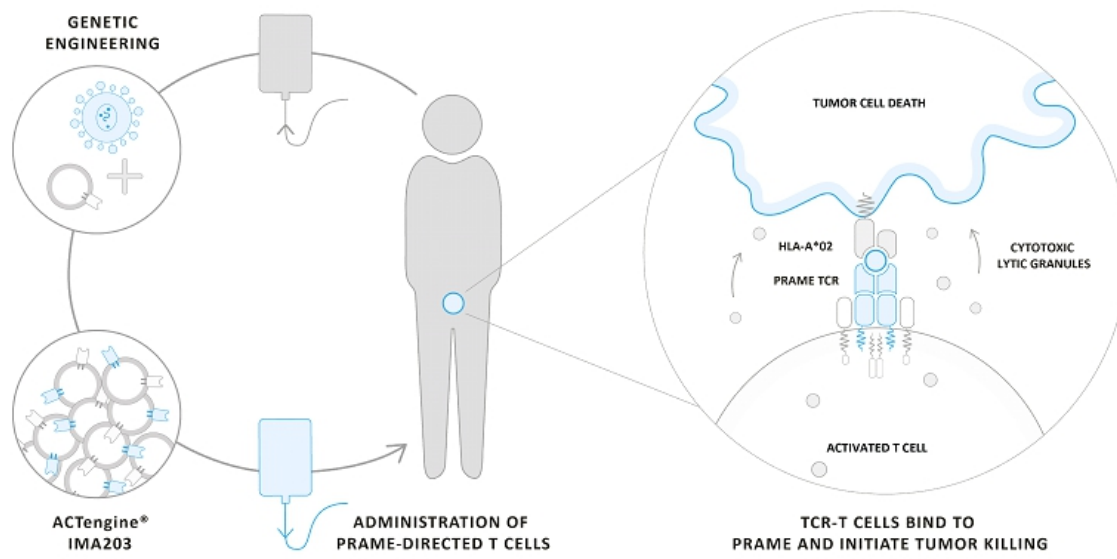
PATIENT POPULATION⁴

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

ACTengine® IMA203 Targeting PRAME – Mechanism of Action

Immatic's Leading TCR-T Approach



Optimized Cell Therapy Products to Enhance T cell Persistence & Efficacy

Current Proprietary Manufacturing Protocol for ACTengine® Product Candidates

Leukapheresis



ACTengine® IMA200 programs: ~3 weeks

Manufacturing time (~1 week)	QC testing (Full sterility, 2 weeks)
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Commercial ACTengine® expected ~2 weeks

Manufacturing time (~1 week)	Expedited QC testing (~1 week)
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Infusion-Ready



Proprietary Manufacturing Process, designed to

- ✓ reduce manufacturing process to approx. 1 week
- ✓ 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 Facility¹

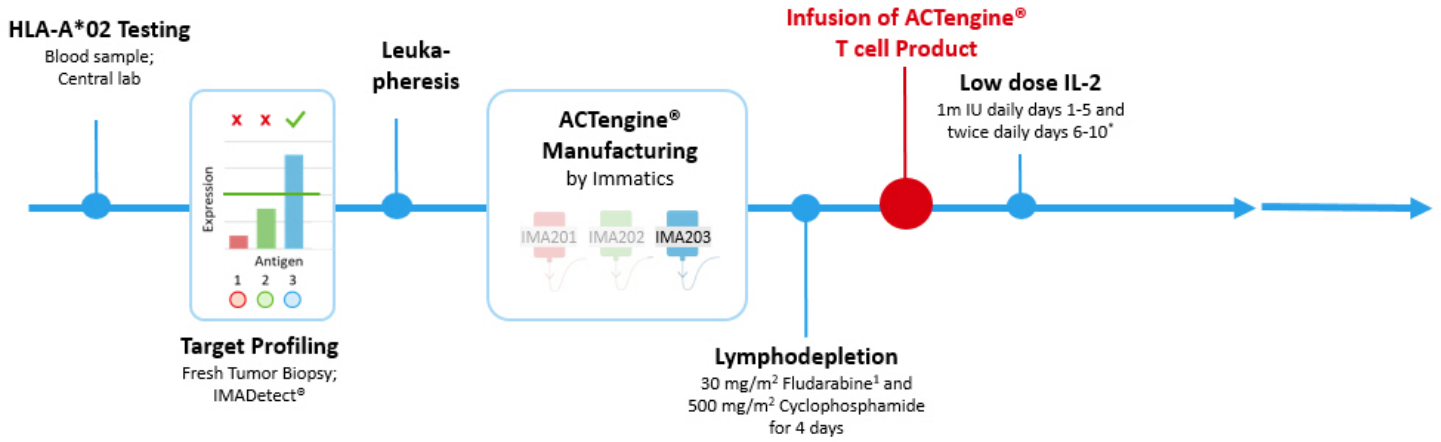
- ✓ Manufacturing by Immatics personnel
- ✓ Maximum capacity: 48 manufacturing runs/month
- ✓ Substantial in-house process development expertise

Screening & Manufacturing Phase

Treatment & Observation Phase

Long Term Follow-up

Safety and efficacy monitoring for 12 months



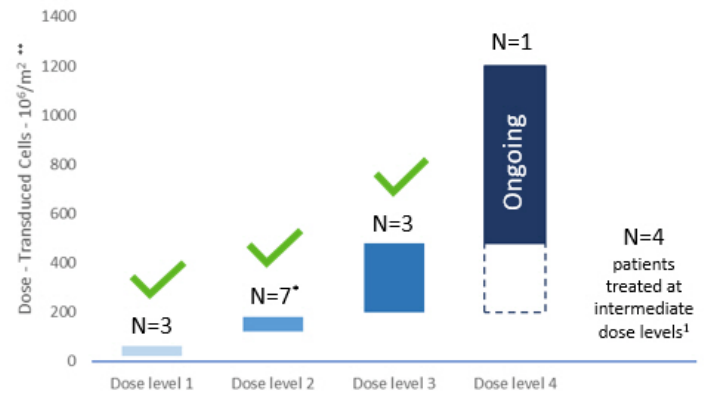
ACTengine® IMA203 – Key Objectives & Trial Design

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 patients¹ infused with PRAME-directed T cells at 5 clinical sites

Data cut-off – 05-Oct-2021

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

TEAEs by maximum severity (N=19)¹

Adverse event	All grades		≥ Grade 3		Adverse event	All grades		≥ Grade 3	
	No.	%	No.	%		No.	%	No.	%
Patients with any adverse event	19	100.0	19	100.0	table continued...				
Adverse Events of Special interest					Cardiac or vascular disorders				
Cytokine release syndrome	17	89.5	0	0.0	Hypertension	3	15.8	2	10.5
ICANS ²	4	21.1	0	0.0	Atrial fibrillation	2	10.5	1 ³	5.3
Blood and lymphatic system disorders					General disorders and administration site conditions				
Neutropenia*	16	84.2	15	78.9	Fatigue	7	36.8	1	5.3
Anaemia	16	84.2	9	47.4	Pyrexia	5	26.3	0	0.0
Thrombocytopenia	15	78.9	7	36.8	Oedema peripheral	3	15.8	0	0.0
Lymphopenia*	14	73.7	14	73.7	Gastrointestinal disorders				
Leukopenia*	12	63.2	11	57.9	Nausea	12	63.2	0	0.0
Cytopenia	1	5.3	1	5.3	Vomiting	7	36.8	0	0.0
Infections and infestations					Diarrhoea	7	36.8	0	0.0
Enterococcal infection	1	5.3	1	5.3	Constipation	6	31.6	0	0.0
COVID-19	1	5.3	1	5.3	Investigations				
Appendicitis	1	5.3	1	5.3	Aspartate aminotransferase increased	5	26.3	0	0.0
Sepsis ⁴	1	5.3	1	5.3	Alanine aminotransferase increased	4	21.1	0	0.0
Respiratory, thoracic and mediastinal disorders					Blood creatinine increased	4	21.1	0	0.0
Hypoxia	2	10.5	1	5.3	Other				
Pleural effusion	2	10.5	1	5.3	Rash	5	26.3	0	0.0
Bronchial obstruction	1	5.3	1	5.3	Myalgia	4	21.1	0	0.0
Metabolism and nutrition disorders					Arthralgia	3	15.8	0	0.0
Hyponatraemia	7	36.8	1	5.3	Alopecia	3	15.8	0	0.0
Hypokalaemia	5	26.3	1	5.3	Rash maculo-papular	2	10.5	1	5.3
Decreased appetite	3	15.8	0	0.0	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

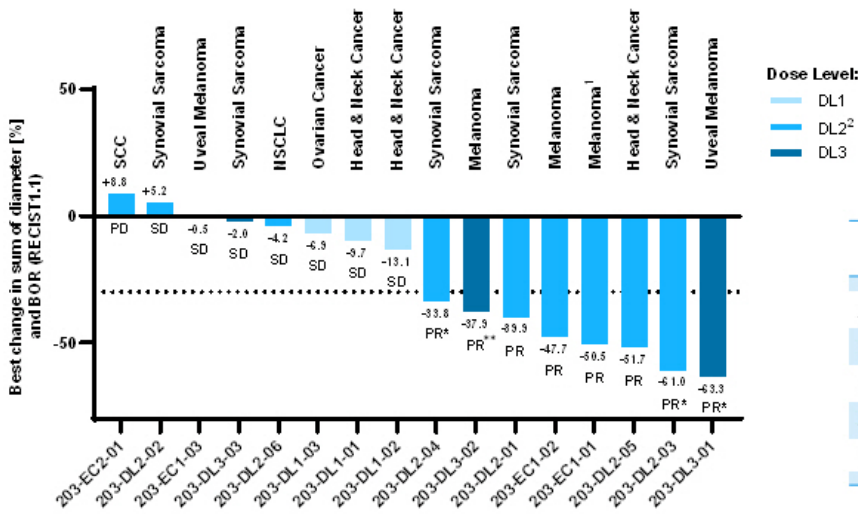
DLT: Transient, Grade 3 atrial fibrillation Onset on day 5 post infusion that resolved within 48h DLT triggered expansion of DL2

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)

ACTengine® IMA203 – Change in Target Lesions

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

Best Overall Response (RECIST1.1)



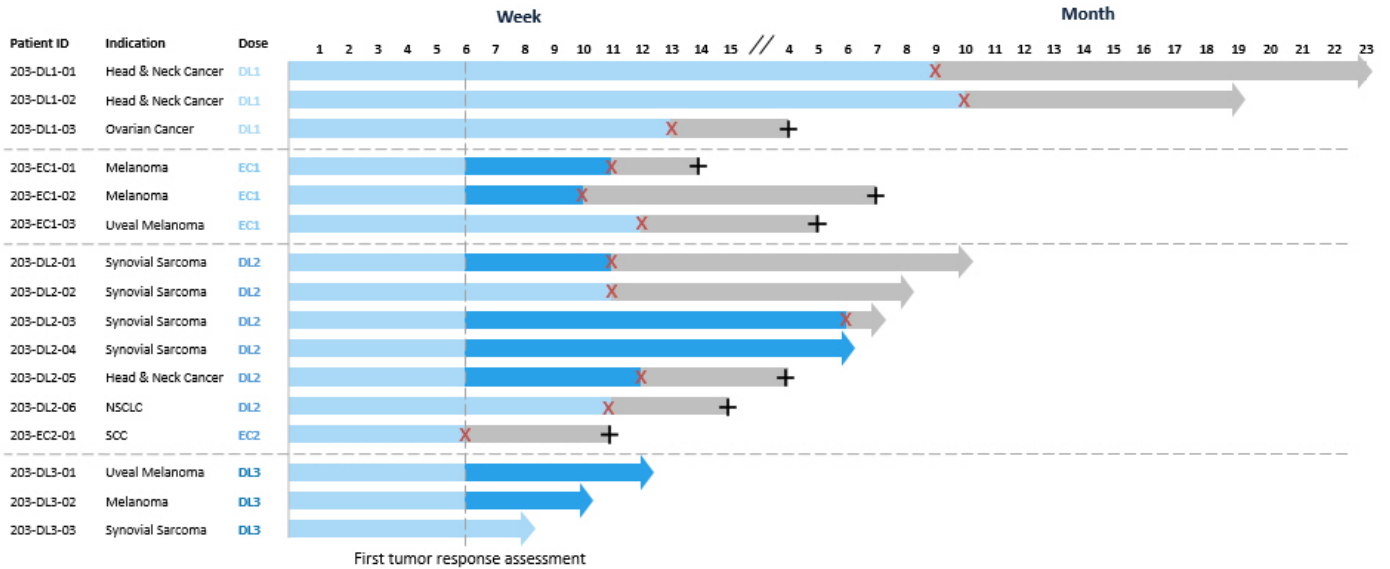
Preliminary Objective Response Rates (RECIST1.1., confirmed and unconfirmed)

	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

ACTengine® IMA203 – Response Over Time

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

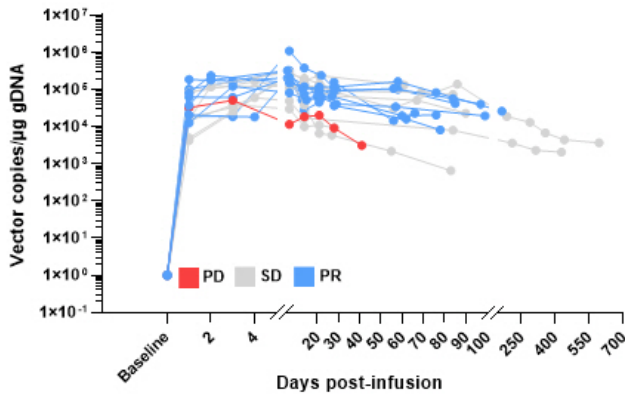


■ SD
 ■ PR
 X PD
 + Deceased
 ➔ Alive (time from infusion to data cut-off or death)
 ➔ PR ongoing at data cut-off

According to RECIST1.1

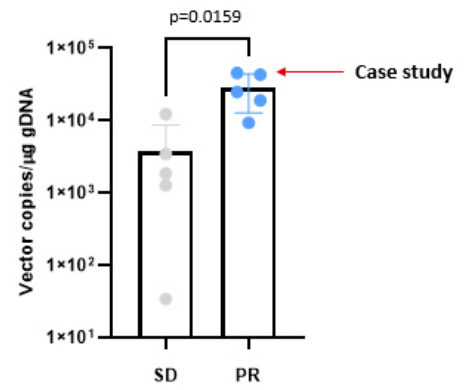
Data cut-off – 05-Oct-2021

T cell Engraftment & Persistence



High T cell engraftment and persistence with trend for association of peak vector copies with clinical response¹

Tumor Infiltration post Infusion²

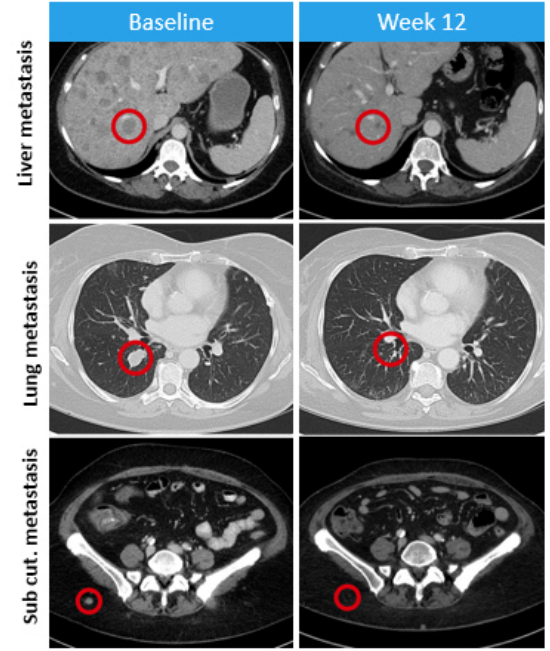
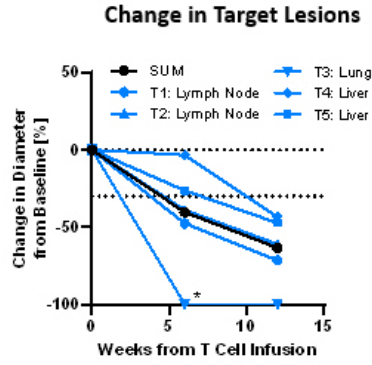
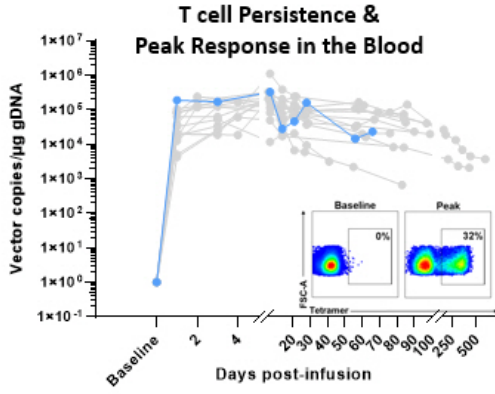


High T cell infiltration observed through serial biopsies associated with clinical response³

Data cut-off – 05-Oct-2021

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

Confirmed Partial Response with Deepening Tumor Regression in Multiple 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 CPI¹
- 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)**

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

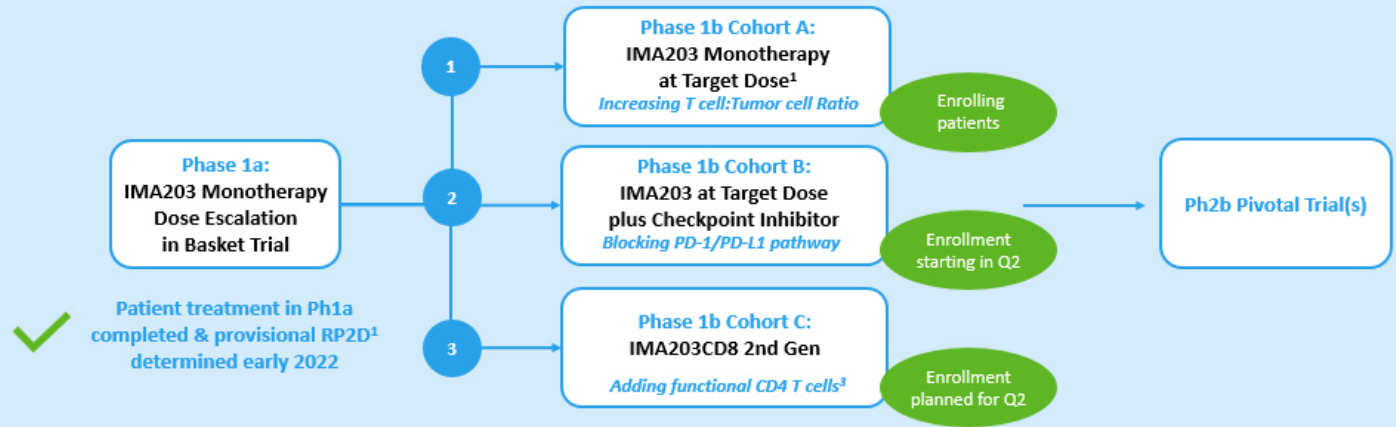
SAFETY	CLINICAL ACTIVITY	BIOLOGICAL ACTIVITY
<p>3 Dose levels completed, all below 1 bn cells</p>	<p>50% ORR³ across all doses and multiple solid cancers (8/16 patients)</p>	<p>Blood High T cell engraftment and persistence</p>
<p>0 Additional DLTs¹</p>	<p>62% ORR³ at DL2* & DL3 (8/13 patients) – all still dosed below 1 bn cells</p>	<p>Tumor High T cell infiltration associated with clinical response</p>

Data cut-off – 05-Oct-2021

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

Addressing Relevant Secondary Resistance Mechanisms to Increase Durability of Response

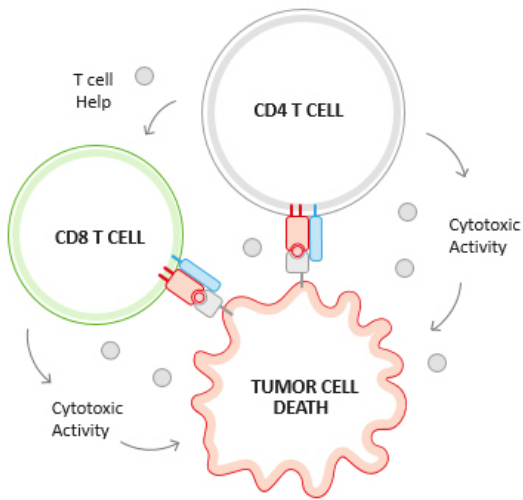
Ph1b Expansion starting 2022



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

ACTEngine® IMA203CD8 – Next-generation TCR-T

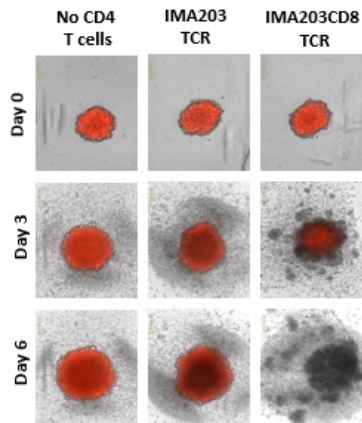
Building on First-Gen IMA203 Success to Further Improve Anti-Tumor Activity



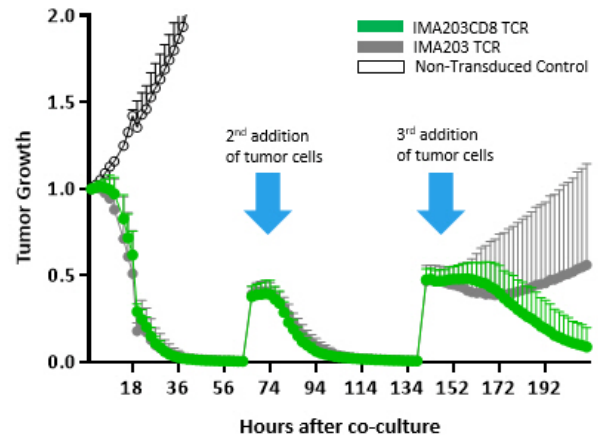
- Engagement of CD4 T cells by CD8 co-transduction reported to boost anti-tumor activity in TCR-T trials
- Recent data from leukaemia patients treated with CAR-T achieving decade-long remissions show that CD4 T cells dominate at the later time points of response¹
- Functional superiority of the **CD8αβ** 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)

[IND filing for IMA203CD8 lead candidate targeted in 1H 2022](#)

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

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

N=2 pts treated in phase 1 dose escalation cohort

DL2 commenced

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%

Data cut-off – 17-Sep-2021

TARGET

HLA-A*02-presented peptide derived from **MAGEA1**

Naturally and specifically presented on tumors at high target density¹:
50-900 copies/cell

Identified and validated by XPRESIDENT® quant. mass spectrometry platform

TCR

High-affinity, specific TCR targeting MAGE1

High functional avidity²:
EC50 ~15 ng/ml

Identified and characterized by XCEPTOR® TCR discovery and engineering platform

CLINICAL DATA

N=10 pts treated in phase 1 dose escalation cohort

Target dose level DL3 ongoing

Manageable tolerability profile; no DLTs or CRS/ICANS ≥ grade 3

Disease control in 7/10 patients (9 pts in DL1 & DL2)

Maximum change of target lesion -35.4% in melanoma pt³

PATIENT POPULATION⁴

HCC – 40%
Squamous NSCLC – 35%
Sarcoma Subtypes – up to 30%
Melanoma – 30%
Bladder Carcinoma – 20%
Esophageal Carcinoma – 20%

Data cut-off – 17-Sep-2021

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

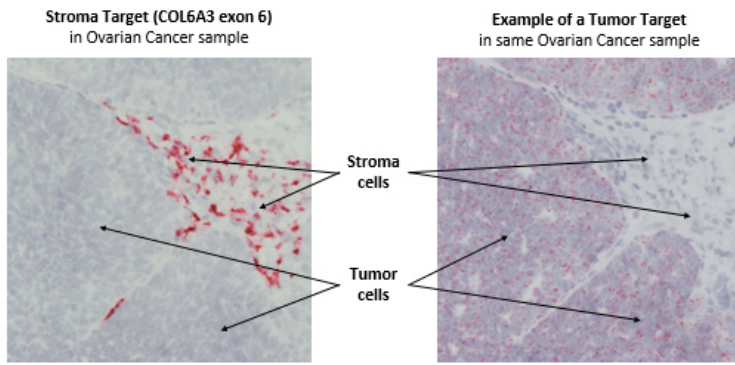
PATIENT POPULATION³

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%

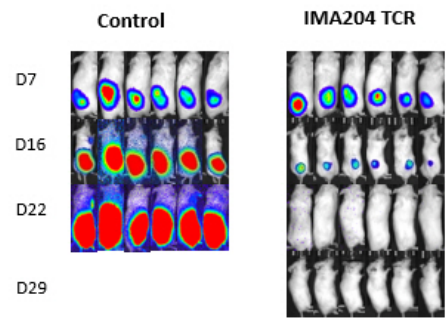
IMA204 provides a promising therapeutic opportunity for a broad patient population as monotherapy or in combination with TCR-T cells directed against tumor targets

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

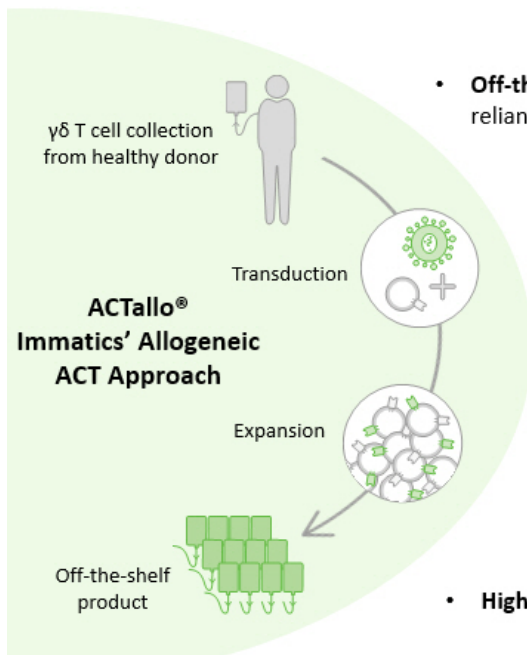


CD8-independent TCR leads to tumor eradication in all mice treated

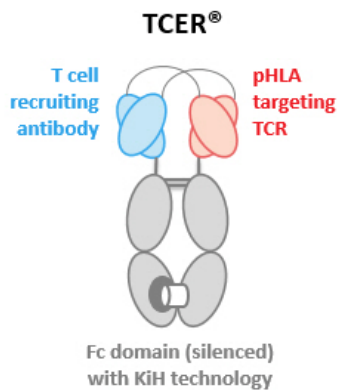
- Affinity matured CD8-independent, next-generation TCR engages both CD4 and CD8 T cells without the need of CD8 co-transduction
- IND-enabling studies are nearing completion

ACTallo[®] IMA30X – Immatics' Allogeneic Cell Therapy Approach

Effective Redirection of $\gamma\delta$ T cells Using $\alpha\beta$ TCR



- **Off-the-shelf cell therapy**, applicable without need for personalized manufacturing and not reliant on potentially encumbered immune system of patient
- **$\gamma\delta$ T cells** are abundant, show intrinsic anti-tumor activity, naturally infiltrate solid tumors and do not cause graft-vs-host disease
- **Proprietary manufacturing protocol** delivering robust expansion of $\gamma\delta$ T cells with the potential for hundreds of doses from one single donor leukapheresis
- **Proprietary single lentiviral vector** system (4-in-1 construct) including TCR and CD8 alpha & beta chains
- **High potency**: TCR transduced $\gamma\delta$ T cells show similar anti-tumor activity to $\alpha\beta$ T cells



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

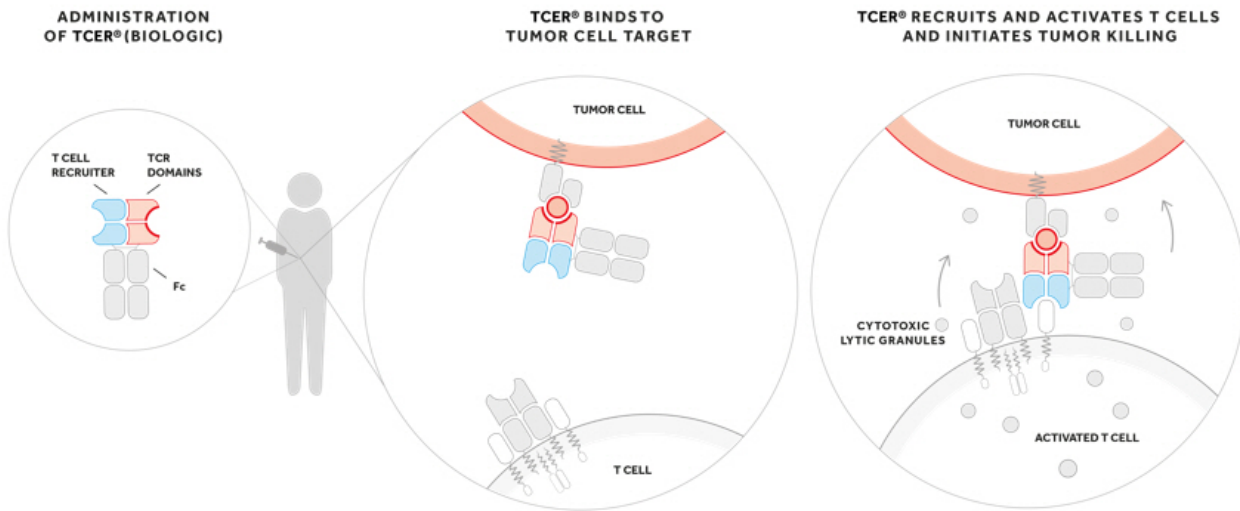
Next-generation TCER® format

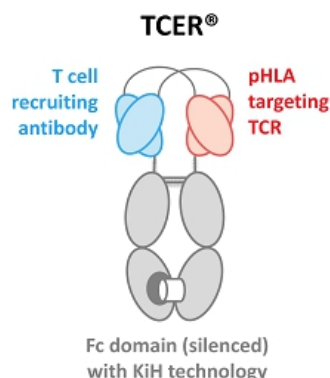
- ✓ Off-the-shelf biologic with antibody-like manufacturability³ and low cost of goods
- ✓ Superior anti-tumor activity⁴ compared to six alternative bispecific formats
- ✓ Half-life of several days expected in humans

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

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

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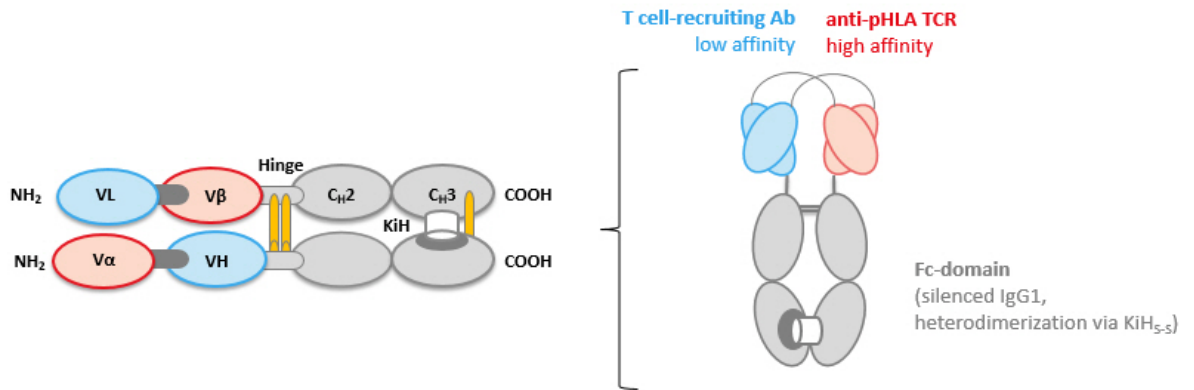
Next-generation TCER® format

- ✓ Off-the-shelf biologic with antibody-like manufacturability³ and low cost of goods
- ✓ Superior anti-tumor activity⁴ compared to six alternative bispecific formats
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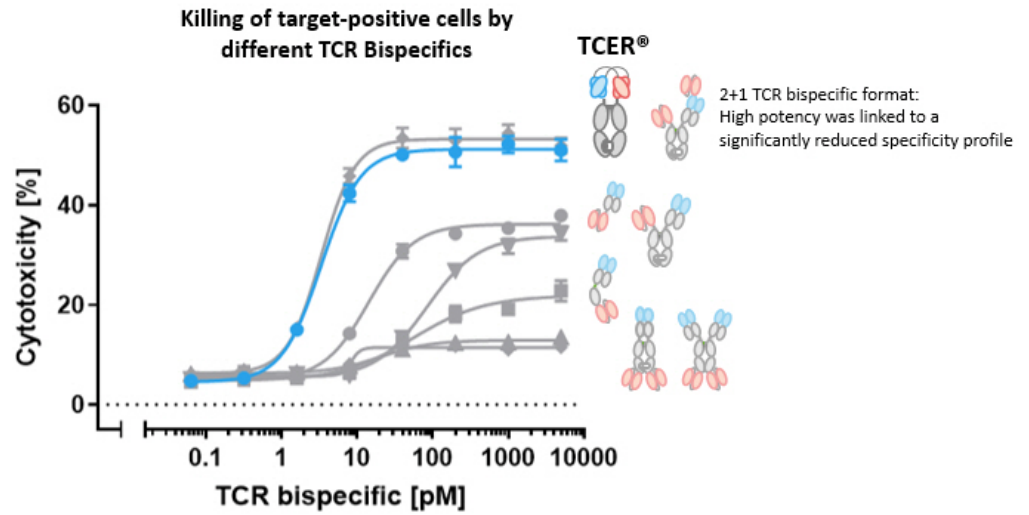
Our TCER® format is designed to maximize efficacy while minimizing toxicities in patients

TCER® – Development of a Proprietary TCR Bispecific Format

Flexible Plug-and-play Platform Designed to Efficiently Generate New TCR Bispecifics



- Immatics developed a proprietary TCR Bispecific format for **specific targeting of tumor-specific pHLA at low copy numbers**
- TCER® format successfully validated for **different TCRs and different T cell recruiting antibodies**



- 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

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
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 		

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

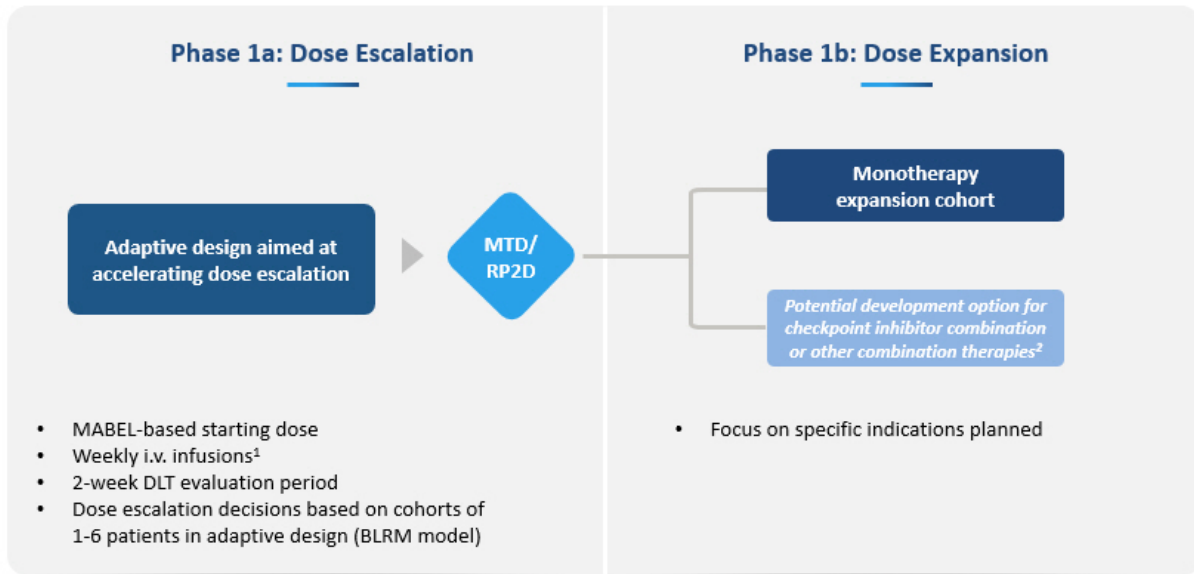
Up to 15 centers

Primary Objective

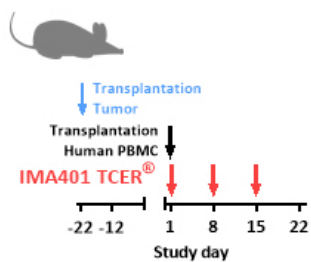
- Determine maximum tolerated dose (MTD) and/or recommended phase 2 dose (RP2D)

Secondary Objectives

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

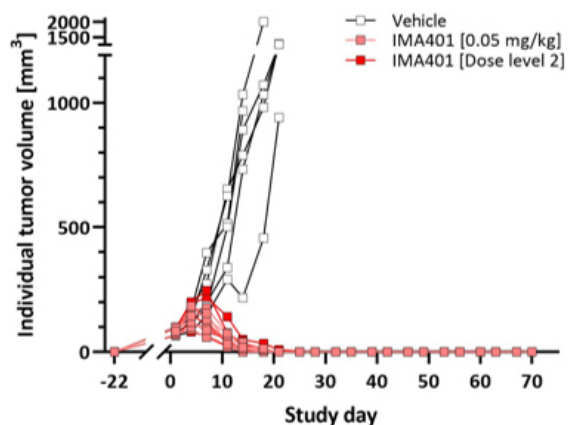


Treatment schedule



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

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

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 days¹ expected in humans driven by the TCER® Fc part

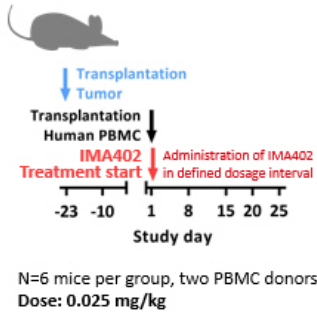
Well Progressing CMC Development

- 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

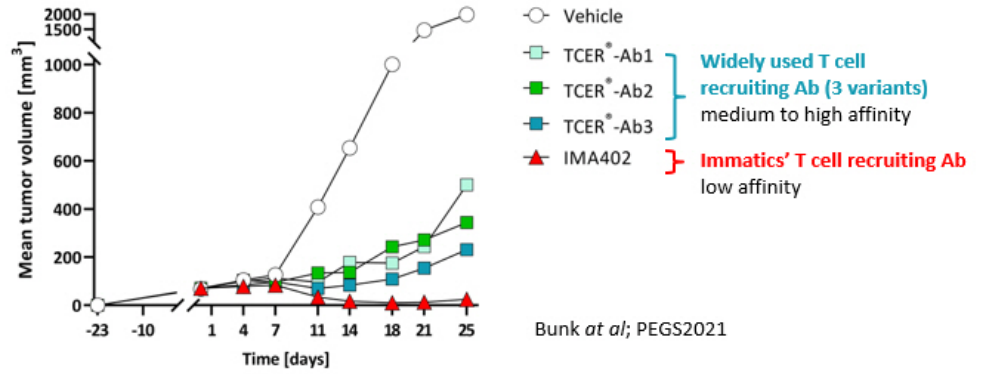
TCER[®] IMA402 – Efficacy Assessment in Tumor Model in Mice

Superior Tumor Control Using a Proprietary, Low-Affinity Recruiter

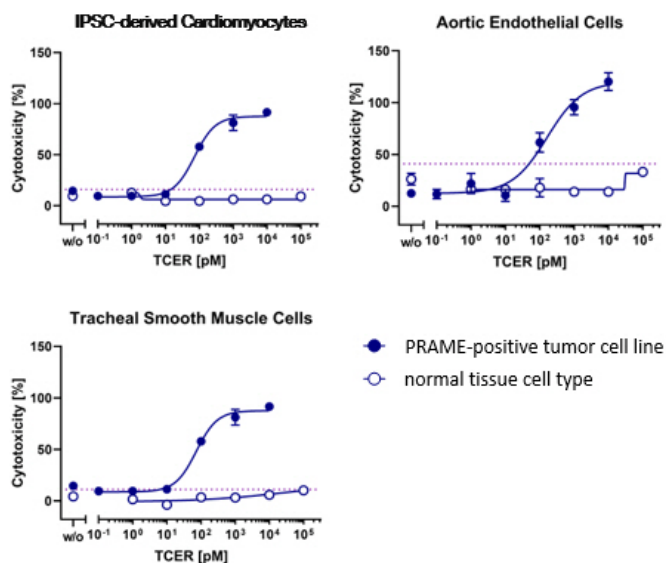
Treatment schedule



Tumor Model in Mice¹



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



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



True Targets via XPRESIDENT® technology platform

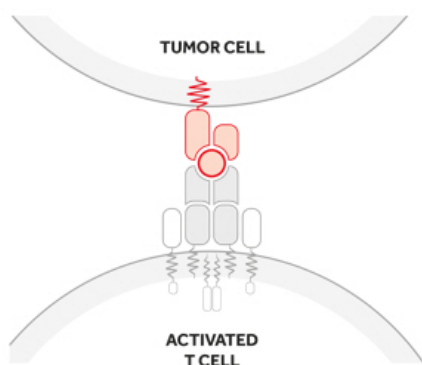
- are naturally presented on tumor tissues as identified by mass-spec
- are absent or presented at only low levels on normal tissues
- are presented at high copy numbers to trigger a pharmacological response

Right TCRs via XCEPTOR® technology platform

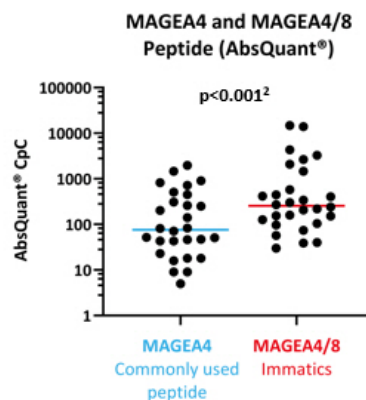
- recognize the target peptide with high affinity and specificity
- show selective killing of tumor cells
- are developed to be suitable for two different therapeutic modalities, Cell Therapies and TCR Bispecifics

Immatics' Unique Capability – Identification of the most Relevant Target

Example of MAGEA4/8 Peptide Target

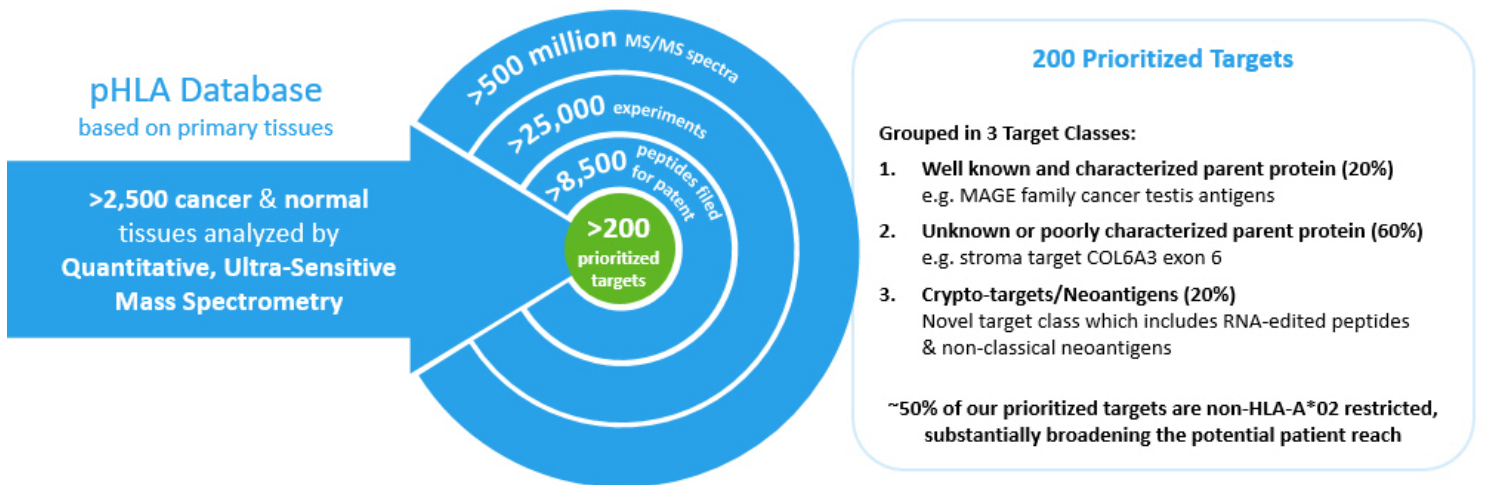


Ranking of pHLA targets



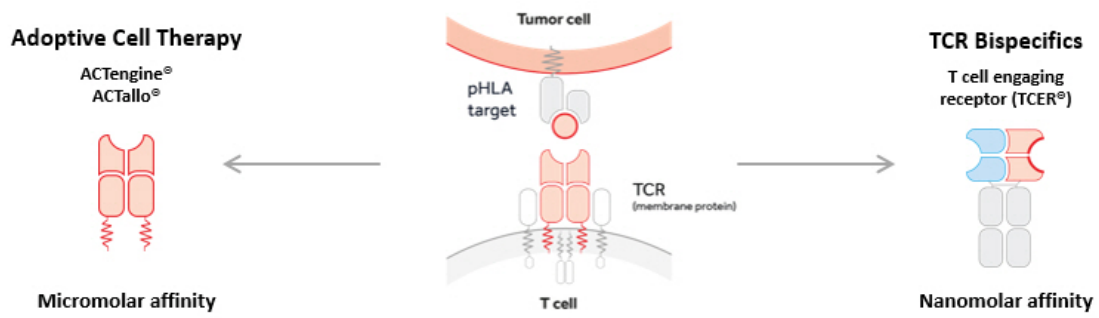
XPRESIDENT® quantitative information on target density¹ between peptides originating from the same source protein

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

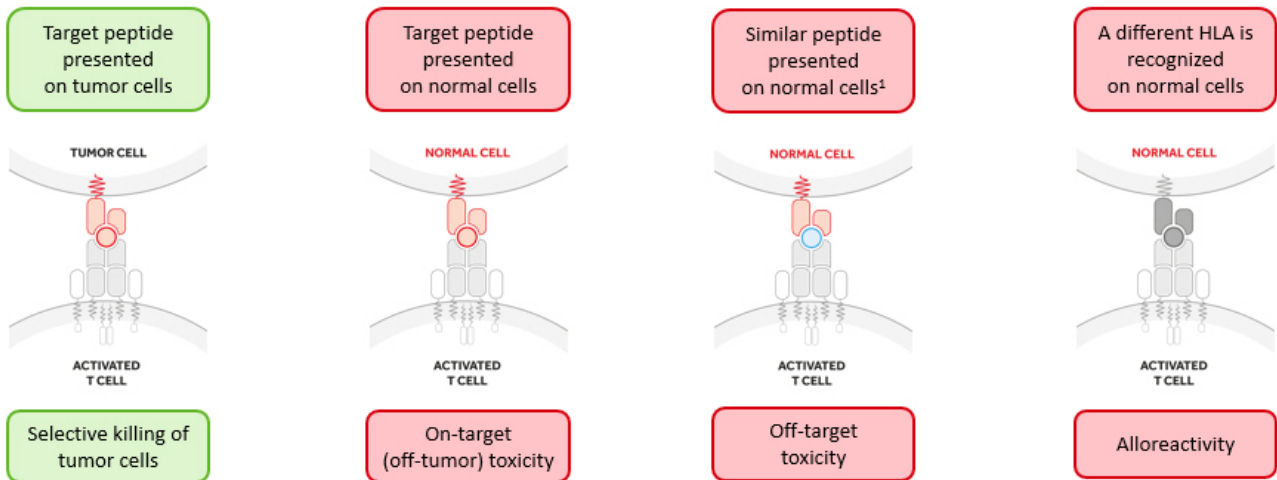
TCR Discovery and Engineering for ACT and TCR Bispecifics



- 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
(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)

Tübingen, Germany, ~175 FTEs



Senior Leadership, Research and Development (XPRESIDENT®, XCEPTOR®, TCER®), Translational Development, Clinical Operations, Finance, HR, IT, QM

Munich, Germany, ~45 FTEs



Senior Leadership, Business Development, Clinical Operations, Intellectual Property, Regulatory Affairs, Communications

Houston, Texas, ~125 FTEs



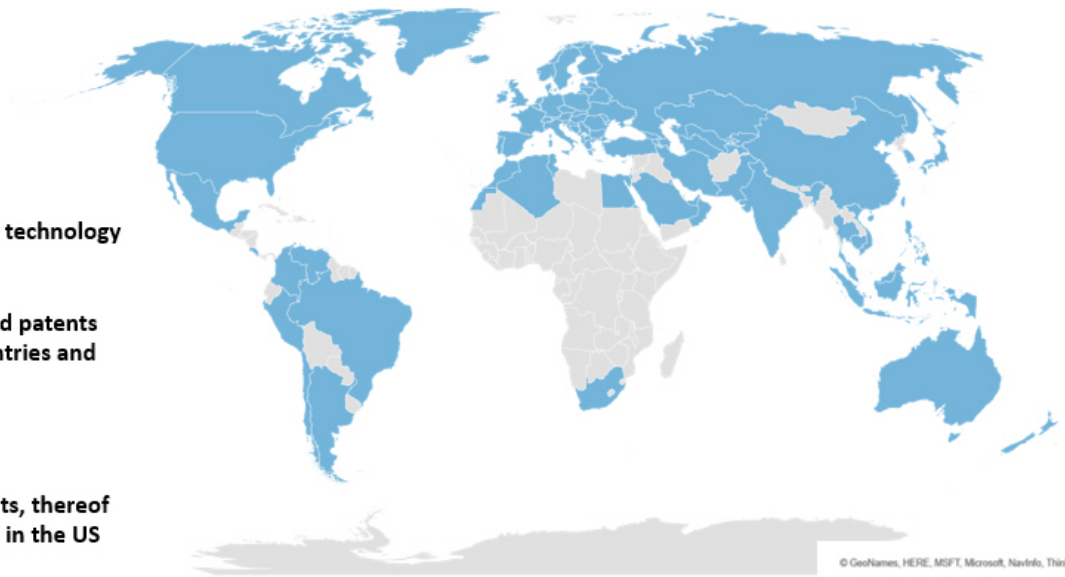
Senior Leadership, Research and Development (Adoptive Cell Therapy), CMC, Clinical Operations, Regulatory Affairs, QA/QC, HR, Investor Relations

Robust IP Portfolio

Immatic's Patent Estate – Territorial Coverage

Cancer targets, TCRs and technology protected by:

- 5,800 applications and patents filed in all major countries and regions
- >120 patent families
- >2,000 granted patents, thereof >490 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

- Initiation of multiple IMA203 Ph1b expansion cohorts ongoing: 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®



DELIVERING THE POWER
OF **T CELLS** TO
CANCER PATIENTS

Thank you!

www.immatics.com

