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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

September 16, 2024

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



**INFORMATION CONTAINED IN THIS REPORT ON FORM 6-K**

On September 16, 2024, Immatics N.V. (the “Company” or “Immatics”) provided proof-of-concept clinical data from its ongoing Phase I trial with TCR bispecific molecule TCER® IMA401. TCER® IMA401 is a novel, next-generation, half-life extended bispecific T cell engager directed against an HLA-A\*02:01-presented peptide derived from MAGEA4 and MAGEA8 with high target copy numbers on various solid cancers. Initial data from the IMA401 Phase I a first-in-human dose escalation basket trial in a broad range of heavily pretreated patients with recurrent and/or refractory solid tumors showed initial anti-tumor activity, durable objective responses, including confirmed responses ongoing at 13+ months, and a manageable tolerability profile. The data cutoff was July 23, 2024.

*Patient Baseline Characteristics.* As of data cutoff, 35 heavily pretreated patients with recurrent and/or refractory solid tumors have been treated with IMA401 monotherapy across nine escalating dose levels (from 6.6µg to 2500µg). The treated patient population is composed of patients with 16 different solid tumor indications who are both HLA-A\*02:01 and MAGEA4/8-positive, had received a median of four and up to eight lines of prior systemic treatments and the majority have an ECOG performance status of  $\geq 1$ . The safety population includes all 35 patients treated with IMA401. 29 patients were evaluable for efficacy analysis, of which 17 patients were treated at relevant dose and target levels, which the Company defines as patients who received IMA401 infusions  $\geq 1$  mg and showed MAGEA4/8<sup>high</sup> target expression higher than the MAGEA4/8 qPCR threshold (n=17).

*Safety Data.* Treatment-emergent adverse events (“TEAEs”) were observed in 32 patients (91% of patients), with Grade  $\geq 3$  TEAEs observed in 26 patients (74% of patients). Treatment-related adverse events (“TRAEs”) were observed in 28 patients (80% of patients), with Grade  $\geq 3$  TRAEs observed in 19 patients (54% of patients). The table below sets forth the TRAEs observed. As shown in the table below, the most frequent adverse events were transient lymphopenia and mild to moderate cytokine release syndrome (“CRS”), with the majority of CRS occurring at the first dose. Both lymphopenia and CRS are consistent with the proposed mechanism of action and reported for other bispecific T cell engagers. Neutropenia (with three dose-limiting events at 2.5 mg) was also observed at high dose levels and occurred mostly at the initial target dose in patients with and without dexamethasone pre-medication. High-grade neutropenia was fully resolved in all cases except one (which was previously reported in the Company’s Annual Report on Form 20-F for the year ended December 31, 2023). Dose escalation for the trial is ongoing, and the maximum tolerated dose has not yet been determined.

Treatment-related AEs <sup>1</sup> , n [%]	All Grades	$\geq$ Grade 3
Lymphopenia	12 [34]	11 [31]
Cytokine release syndrome	11 [31]	0
Neutropenia	8 [23]	5 [14]
Facial pain	6 [17]	2 [6]
Anaemia	5 [14]	4 [11]
Thrombocytopenia	5 [14]	2 [6]
Headache	5 [14]	1 [3]
Hypertension	4 [11]	2 [6]
Leukopenia	4 [11]	2 [6]
Fatigue	4 [11]	0
Nausea	3 [9]	0
Hypoxia	2 [6]	1 [3]
Aspartate aminotransferase increased	1 [3]	1[3]
Febrile neutropenia	1 [3]	1[3]
Pneumonia	1 [3]	1[3]
Sinus tachycardia	1 [3]	1[3]

<sup>1</sup> All TEAEs at least possibly related to IMA401 infusion with grade 1-2 occurring in at least 9% of patients and all events with grade 3-5.

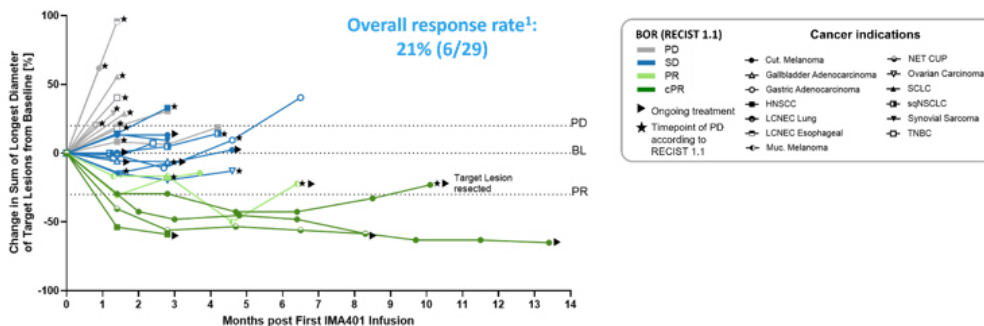
**Pharmacokinetics.** IMA401 demonstrated an “antibody-like” median half-life of over two weeks (16.9 days). This supported the switch to q2w dosing (once every two weeks) during dose escalation. In addition, the data support pursuing increased dosing intervals of up to q4w (once every four weeks), which could further offer an ideal dosing interval for potential combination with checkpoint inhibitors.

**Anti-tumor Activity.** Disease control was observed in multiple tumor types, including sqNSCLC, ovarian carcinoma, TNBC, gastric adenocarcinoma, and gallbladder adenocarcinoma. The table below sets forth the observed anti-tumor activity of IMA401 in the overall efficacy-evaluable population across all doses and target levels and patients with relevant IMA401 doses and MAGEA4/8<sup>high</sup> levels.

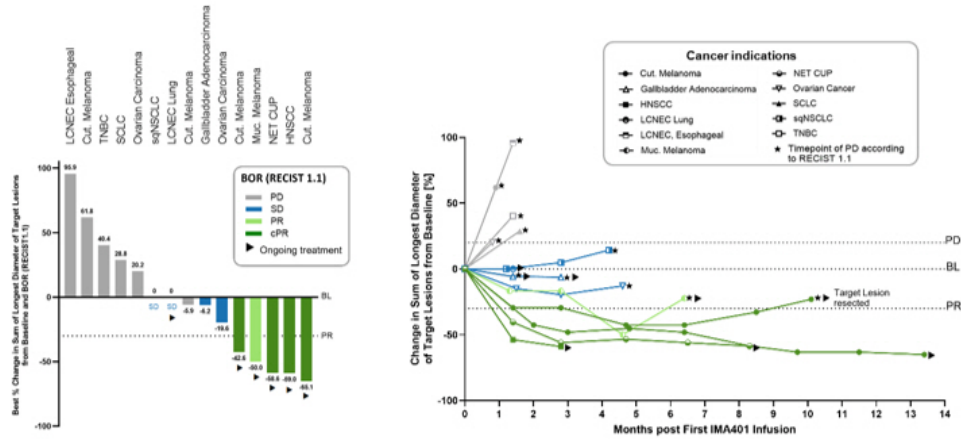
	<u>Patients with relevant IMA401 doses and MAGEA4/8<sup>high</sup> levels</u> (n=17)	<u>Overall efficacy-evaluable population across all dose and target levels</u> (n=29)
Objective response rate	29% (5/17)	21% (6/29)
Confirmed objective response rate	25% (4/16)	14% (4/28)
Disease control rate	53% (9/17)	55% (16/29)
Tumor shrinkage	53% (8/15)	44% (12/27)

We observed deep responses (tumor shrinkage of  $\geq 50\%$ ) in four patients, including deepening of responses over time. The graphs below set forth the observed anti-tumor activity of IMA401 across tumor types in the overall efficacy-evaluable population across all doses and target levels and patients with relevant IMA401 doses and MAGEA4/8<sup>high</sup> levels.

Across All Doses and Target Levels (n=29)



Cancer Indications: Cut.: Cutaneous; HNSCC: Head & Neck Squamous Cell Carcinoma; LCNEC: Large Cell Neuroendocrine Carcinoma; Muc.: Mucosal; NET CUP: Neuroendocrine Tumor, Cancer of Unknown Primary; SCLC: Small Cell Lung Cancer; sqNSCLC: Squamous Non-small Cell Lung Cancer; TNBC: Triple Negative Breast Cancer. \*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. BOR for one cut. melanoma patient is presented as SD as per iRECIST while BOR per RECIST1.1 was PD, as there was a site error in imaging baseline non-target lesions. <sup>1</sup> includes confirmed and unconfirmed PR; BL: Baseline ; BOR: Best overall response; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.



Cancer Indications: Cut.: Cutaneous; HNSCC: Head & Neck Squamous Cell Carcinoma; LCNEC: Large Cell Neuroendocrine Carcinoma; Muc.: Mucosal; NET CUP: Neuroendocrine Tumor, Cancer of Unknown Primary; SCLC: Small Cell Lung Cancer; sqNSCLC: Squamous Non-small Cell Lung Cancer; TNBC: Triple Negative Breast Cancer. \*Patients in this analysis are part of the efficacy analysis set with at least one post-treatment tumor assessment and had received IMA401 infusions at  $\geq 1$  mg and showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold (n=17); Confirmed ORR (cORR): Confirmed objective response rate according to RECIST 1.1 for patients with at least two available post infusion scans or patients with progressive disease (PD) at any prior timepoint; two patients not included in tumor shrinkage calculation or shown in the figures as they had clinical progression and post-treatment tumor assessment is not available; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

As of data cutoff, 3 of 4 confirmed responses were ongoing at 13+, 8+ and 3+ months. We observed that objective responses are associated with MAGEA4/8 target expression level. In addition, we observed that tumor shrinkage and disease control induced by IMA401 was associated with prolonged overall survival, with overall survival not reached for patients who experienced tumor shrinkage or disease control versus median overall survival of 4.3 months and 3.2 months, respectively, for patients who did not experience tumor shrinkage or disease control.

On September 13, 2024, Bristol Myers Squibb (“BMS”) notified the Company that, due to ongoing portfolio prioritization efforts within BMS, it has elected to return IMA401 back to Immatics and terminate the collaboration agreement, dated as of December 10, 2021, relating to IMA401, effective December 12, 2024. Thereafter, all IMA401 development and commercialization rights will return to Immatics. Immatics is not obligated to refund BMS any part of the \$150 million upfront payment received under the collaboration agreement. In addition, Immatics is not required to pay any future milestone payments to BMS. The parties will engage in a wind-down period as stipulated under the collaboration agreement.

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In connection with the foregoing, the Company issued a press release, a copy of which is attached hereto as Exhibit 99.1, and provided a presentation, a copy of which is attached hereto as Exhibit 99.2, and made available an updated corporate presentation, a copy of which is attached hereto as Exhibit 99.3.

Certain statements in this report 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 timing, outcome and design of clinical trials, the nature of clinical trials (including whether such clinical trials will be registration-enabling), the timing of IND or CTA filing for pre-clinical stage product candidates, estimated market opportunities of product candidates, the Company’s focus on partnerships to advance its strategy, and other metrics are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “may”, “should”, “expect”, “plan”, “target”, “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 the Company’s Annual Report on Form 20-F and other filings with the Securities and Exchange Commission (SEC). Nothing in this report 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. The Company undertakes no duty to update these forward-looking statements. All the scientific and clinical data presented within this report 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.

#### INCORPORATION BY REFERENCE

This Report on Form 6-K (other than Exhibits 99.1, 99.2 and 99.3 hereto) shall be deemed to be incorporated by reference into the registration statements on Form F-3 (Registration Nos. 333-240260 and 333-274218) 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

<b>Exhibit No.</b>	<b>Description</b>
<a href="#">99.1</a>	<a href="#">Press release dated September 16, 2024</a>
<a href="#">99.2</a>	<a href="#">Presentation dated September 16, 2024</a>
<a href="#">99.3</a>	<a href="#">Corporate presentation dated September 16, 2024</a>

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**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: September 16, 2024

**IMMATICS N.V.**

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

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## PRESS RELEASE

**Immatics Presents Clinical Proof-of-Concept Data from Ongoing Phase 1 Dose Escalation Trial with TCR Bispecific Molecule TCER<sup>®</sup> IMA401****Targeting MAGEA4/8 at ESMO 2024 and Provides Development Update**

- TCER<sup>®</sup> IMA401 is a novel, next-generation, half-life extended bispecific T cell engager directed against an HLA-A\*02-presented peptide derived from MAGEA4 and MAGEA8 with high target copy numbers on various solid cancers
- Data from the first-in-human Phase 1 dose escalation trial demonstrate initial anti-tumor activity and a manageable tolerability profile for TCER<sup>®</sup> IMA401 monotherapy; patient population includes 35 heavily pre-treated patients across 16 different solid tumor types; dose escalation is ongoing
- Objective response rate (ORR) 29%, confirmed ORR (cORR) 25%, disease control rate (DCR) of 53% and tumor shrinkage rate of 53% in the efficacy population treated with relevant IMA401 doses and MAGEA4/8 target levels<sup>1</sup>
- Objective responses observed in head and neck squamous cell carcinoma, neuroendocrine tumor, cutaneous and mucosal melanoma including durable ongoing partial responses of up to 13+ months and deep responses (tumor shrinkage of  $\geq 50\%$ )
- Pharmacokinetics data indicate a median terminal half-life of over two weeks, supporting the current q2w (once every two weeks) schedule and the pursuit of future dosing schedules of up to q4w
- Immatics to regain full clinical development and commercialization rights to IMA401 due to ongoing portfolio prioritization efforts within Bristol Myers Squibb; Phase 1 dose escalation trial with IMA401 is ongoing and will continue to be conducted by Immatics

**Houston, Texas and Tuebingen, Germany, September 16, 2024** – Immatics N.V. (NASDAQ: IMTX, “Immatics” or the “Company”), a clinical-stage biopharmaceutical company active in the discovery and development of T cell-redirecting cancer immunotherapies, today presented the

<sup>1</sup> Patients in this analysis had received IMA401 infusions  $\geq 1$  mg and showed MAGEA4/8 target expression higher than the MAGEA4/8<sup>high</sup> qPCR threshold (n=17).

proof-of-concept clinical data for the first candidate of its next-generation, half-life extended TCR Bispecifics platform, TCER® IMA401 (MAGEA4/8), during an oral presentation at the European Society for Medical Oncology (ESMO) Congress 2024.

Initial data from the IMA401 Phase 1a first-in-human dose escalation basket trial in a broad range of heavily pretreated patients with recurrent and/or refractory solid tumors showed initial anti-tumor activity, durable objective responses, including confirmed responses ongoing at 13+ months, and a manageable tolerability profile.

The data from the ongoing Phase 1 trial will be presented today by Martin Wermke, M.D. during the Investigational Immunotherapy oral presentation session at the ESMO Congress 2024. The IMA401 data slides are accessible in the ['Events & Presentations'](#) section of the Investor & Media section of the Company's website.

"Today marks the achievement of a major milestone for Immatics as the data presented confirm clinical proof-of-concept for our proprietary TCER® therapeutic approach and IMA401, our next-generation, half-life extended TCR-based bispecific targeting a novel tumor-specific peptide derived from MAGEA4/8. We are very pleased to observe initial anti-tumor activity, including durable objective responses, during dose escalation in a heavily pre-treated patient population and across several solid tumor types," said Carsten Reinhardt, M.D., Ph.D., Chief Development Officer at Immatics. "As the clinical trial progresses, our goal will be to further leverage the potential of this product candidate by focusing on the enrollment of indications with high MAGEA4/8 target expression, such as lung and head and neck cancer patients, seeking to optimize the treatment schedule and also exploring the incremental clinical benefit available to patients through combining IMA401 with a checkpoint inhibitor."

In addition, the collaboration with Bristol Myers Squibb (NYSE:BMJ) for the co-development of IMA401 has ended due to ongoing portfolio prioritization efforts within Bristol Myers Squibb. The existing collaboration and license agreement signed in December 2021 will terminate effective December 12, 2024. Thereafter, all IMA401 development and commercialization rights will be reverted to Immatics. Immatics is not obligated to refund Bristol Myers Squibb any part of the \$150 million upfront received under the collaboration and is not required to make any future milestone payments to Bristol Myers Squibb; the parties will engage in a wind-down period as stipulated under the collaboration agreement.

Based on the terms of the agreement with Bristol Myers Squibb, Immatics has been responsible for conducting the ongoing Phase 1 clinical trial. Immatics intends to advance IMA401 further through clinical development. The next data update is expected in 2025.



“Building on the initial anti-tumor activity observed in heavily pretreated patients with solid tumors, we are delighted to bring this highly promising drug candidate back into our pipeline as a wholly owned asset,” said Harpreet Singh, Ph.D., CEO and Co-Founder of Immatics. “We see tremendous potential in going after cancers that express MAGEA4 and MAGEA8, complementing our PRAME franchise and strengthening our ability to deliver a meaningful impact on the lives of solid cancer patients.”

#### **Key Clinical Findings from TCER®-IMA401 Monotherapy Phase 1 Trial**

**Patient baseline characteristics:** *Heavily pretreated patients with a broad range of tumor types*

As of data cut-off on July 23, 2024, 35 heavily pretreated patients with recurrent and/or refractory solid tumors have been treated with IMA401 monotherapy across nine escalating dose levels. The treated patient population is composed of patients with 16 different solid tumor indications who are both HLA-A\*02:01 and MAGEA4/8-positive, had received a median of four and up to eight lines of prior systemic treatments and the majority have an ECOG performance status of  $\geq 1$ . The safety population includes all 35 patients treated with IMA401. 29 patients were evaluable for efficacy analysis, of which 17 patients were treated at relevant dose and target levels<sup>1</sup>.

**Safety:** *Treatment with IMA401 demonstrates a manageable tolerability profile*

IMA401 demonstrated an overall manageable tolerability profile in the 35 patients treated. The most frequent treatment-related adverse events (AEs) were transient lymphopenia and mild to moderate cytokine release syndrome (CRS) with the majority of CRS occurring at the first dose. Both AEs are consistent with the proposed mechanism of action and reported for other bispecific T cell engagers. Neutropenia was also observed at high dose levels and occurred mostly at the initial target dose in patients with and without dexamethasone pre-medication. High-grade neutropenia was fully resolved in all cases except one.

Dose escalation for the trial is ongoing and the maximum tolerated dose has not yet been determined.

**Pharmacokinetics:** *Next-generation TCER® format shows extended half-life in solid cancer patients*

IMA401 demonstrated an “antibody-like” median half-life of over two weeks (16.9 days). This supported the switch to q2w dosing (once every two weeks) during dose escalation.

In addition, the data support pursuing increased dosing intervals of up to q4w (once every four weeks), which could further offer an ideal dosing interval for potential combination with checkpoint inhibitors.

**Initial anti-tumor activity: IMA401 demonstrates initial anti-tumor activity in multiple tumor types**

As of data cut-off on July 23, 2024, three of four confirmed responses were ongoing at 13+, 8+ and 3+ months. Deep responses (tumor shrinkage of  $\geq 50\%$ ) were observed in four patients (head and neck squamous cell carcinoma, neuroendocrine tumor of unknown primary, cutaneous and mucosal melanoma).

The data obtained also indicate that objective responses are associated with MAGEA4/8 target expression level.

	<b>Patients with relevant IMA401 doses and MAGEA4/8<sup>high</sup> levels<sup>1</sup> (N=17)</b>	<b>Overall efficacy-evaluable population across all dose and target levels (N=29)</b>
<b>Objective Response Rate</b>	<b>29%</b> (5/17)	21% (6/29)
<b>Confirmed Objective Response Rate</b>	<b>25%</b> (4/16)	14% (4/28)
<b>Disease Control Rate</b>	<b>53%</b> (9/17)	55% (16/29)
<b>Tumor Shrinkage</b>	<b>53%</b> (8/15)	44% (12/27)

<sup>1</sup>Patients in this analysis had received IMA401 infusions  $\geq 1$  mg and showed MAGEA4/8 target expression higher than the MAGEA4/8<sup>high</sup> qPCR threshold (n=17).

**About IMA401**

TCER<sup>®</sup> IMA401 is Immatics' most advanced TCER<sup>®</sup> molecule from the Bispecifics pipeline 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<sup>®</sup> and is presented at a 5-fold higher copy number per tumor cell than the MAGEA4 peptide targeted in other clinical trials.

TCER<sup>®</sup> IMA401 is currently being evaluated in a Phase 1 basket trial in patients with solid tumors expressing MAGEA4/8. The MAGEA4/8 peptide has a high prevalence in several solid tumor indications such as head and neck squamous cell carcinoma (HNSCC), small cell lung cancer (SCLC), as well as melanoma, sarcoma subtypes and other solid cancer types.

- 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.

Immatics intends to use its website [www.immatics.com](http://www.immatics.com) as a means of disclosing material non-public information. For regular updates you can also follow us on [X](#), [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 the Company's future financial or operating performance. For example, statements concerning timing of data read-outs for product candidates, the timing, outcome and design of clinical trials, the nature of clinical trials (including whether such clinical trials will be registration-enabling), the timing of IND or CTA filing for pre-clinical stage product candidates, estimated market opportunities of product candidates, the Company's focus on partnerships to advance its strategy, and other metrics are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may", "should", "expect", "plan", "target", "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 the Company's Annual Report on Form 20-F and other filings with the Securities and Exchange Commission (SEC). Nothing in this press release 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. The Company undertakes no duty to update these forward-looking statements. All the scientific and clinical data presented within this press release are – by

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**For more information, please contact:**

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**Immatics N.V.**

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Immatics Press Release September 16, 2024

# TCR Bispecific Molecule TCER<sup>®</sup> IMA401 Targeting MAGEA4/8 - Phase 1 Dose Escalation Clinical Data Update

September 16, 2024



Oral presentation by Martin  
Wermke at the European Society  
of Medical Oncology Congress  
2024 on September 16, 2024

Data cut-off Jul 23, 2024

*Delivering the Power of T cells to Cancer Patients*

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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 none of Immatics, any of its affiliates, any of its or their respective 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.

**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 timing, outcome and design of clinical trials, the nature of clinical trials (including whether such clinical trials will be registration-enabling), the timing of IND or CTA filing for pre-clinical stage product candidates, estimated market opportunities of product candidates, the Company's focus on partnerships to advance its strategy, and other metrics are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may", "should", "expect", "plan", "target", "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 the Company's Annual Report on Form 20-F and other filings with the Securities and Exchange Commission (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. The Company undertakes no duty to update these forward-looking statements.

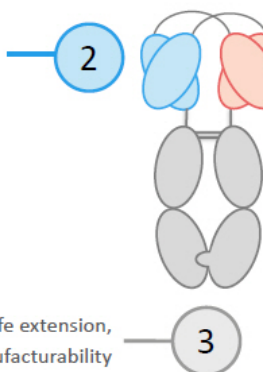
**No Offer or Solicitation.** This communication is for informational purposes only and does not constitute, or form a part of, an offer to sell or the solicitation of an offer to sell or an offer to buy or the solicitation of an offer to buy any securities, and there shall be no sale of securities, 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, or in an offering exempt from registration.

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.

# IMA401: Next-Generation Bispecific TCER® Targeting MAGEA4/8

## Designed to Efficiently Target Tumor-specific Peptides (pHLA)

**Low-affinity**  
T cell recruiter  
against CD3/TCR

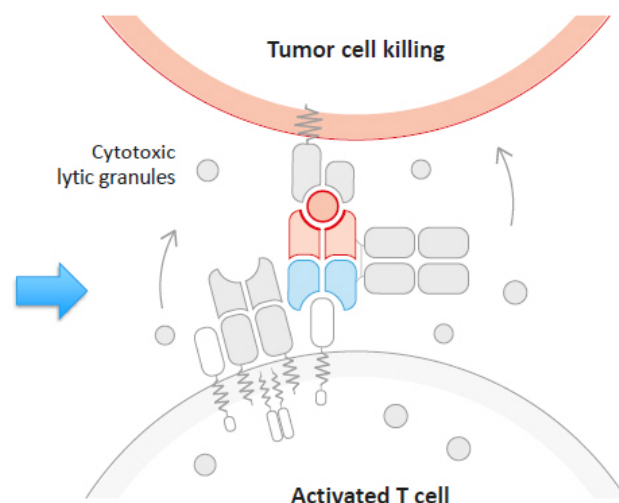


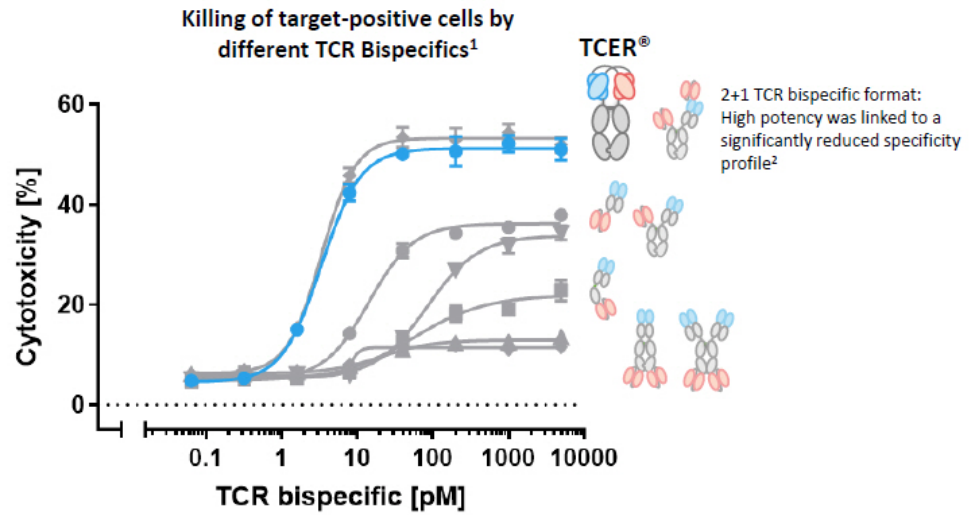
**High-affinity** TCR  
domains targeting  
proprietary **high copy-**  
**number** MAGEA4/8-  
derived HLA-A\*02-  
presented peptide

**Fc part** for half-life extension,  
stability and manufacturability

### TCER format specifically designed for:

- Superior potency to allow successful pHLA targeting<sup>1</sup>
- Minimized cytokine release in absence of target
- Optimized scheduling (i.e. q2w/q3w)





- Seven different TCR Bispecific formats were evaluated with a pHLA targeting TCR and the identical T cell recruiting antibody
  - TCER® format had higher combination of potency and specificity<sup>2</sup> 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**

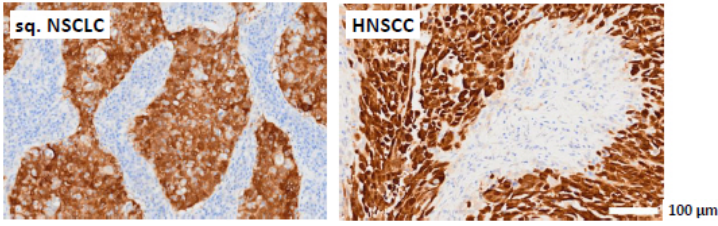
<sup>1</sup>Data presented at SITC 2022; <sup>2</sup>Preclinical data on specificity not shown



# TCER® IMA401 Targeting MAGEA4/8

## Higher Target Density of MAGEA4/8 Peptide

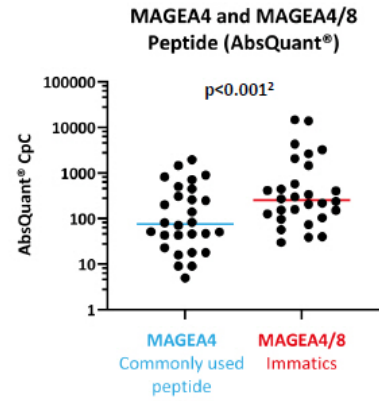
MAGEA4 protein detection in tumor samples (IHC)



MAGEA4/8 target prevalence in selected cancer indications

Indications	Target prevalence <sup>1</sup> [%]	Number of addressable patients*
Squamous non-small cell lung carcinoma	52%	22k
Head and neck squamous cell carcinoma	36%	7k
Bladder carcinoma	29%	9k
Ovarian carcinoma	23%	4k
Esophageal carcinoma	23%	3k
Small cell lung cancer	21%	4k
Triple-negative breast cancer	20%	2k
Gastric adenocarcinoma	14%	3k
Cutaneous melanoma	18%	2k
Non-small cell lung adenocarcinoma	9%	6k

\*1L+ Unresectable or Metastatic Addressable Patient Populations (US, UK, EU4 in 2025), total MAGE A4/A8+ and HLA-A\*02+

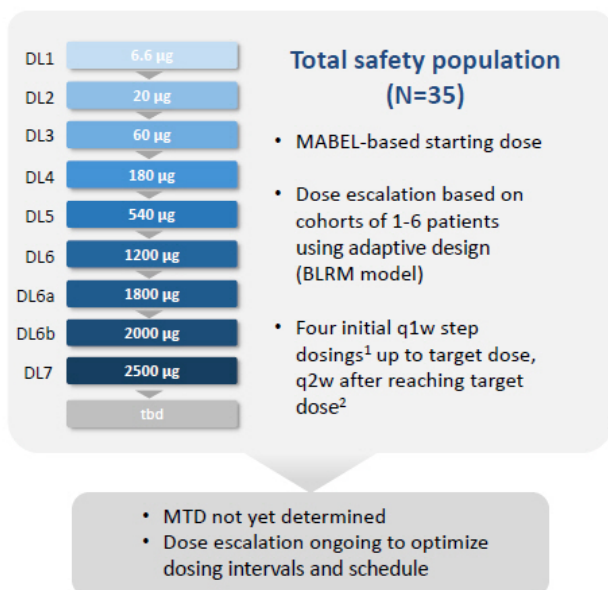


MAGEA4/8 target is presented at >5-fold higher target density<sup>3</sup> than a commonly used MAGEA4 target peptide

<sup>1</sup>MAGEA4/8 target prevalences are based on TCGA and in-house data combined with a XPRESIDENT®-determined target individual MS-based mRNA expression threshold; qPCR-threshold for patient screening; <sup>2</sup>Students paired T test; <sup>3</sup>Copy number per tumor cell (CpC) measured on a paired-sample basis by AbsQuant®, i.e. comparing MAGEA4 vs. MAGEA4/8 peptide presentation on same sample

# Trial Design – IMA401-101 Phase 1a Dose Escalation

## First-in-Human Basket Trial Targeting the MAGEA4/8 Peptide in Solid Tumors



### Objectives

**Primary:**

- Determine MTD and/or RP2D

**Secondary:**

- Tolerability
- Pharmacokinetics
- Initial anti-tumor activity

### Key Eligibility Criteria

- Recurrent and/or refractory **solid tumors**
- HLA-A\*02:01 positive
- MAGEA4/8-positive as confirmed by mRNA-based assay<sup>3</sup>
- ECOG status 0-2
- Received or not eligible for all available indicated standard of care treatments

<sup>1</sup>Step dosing with 300 µg and 600 µg introduced at DL6; Low-dose dexamethasone pre-medication used at higher dose levels as used with other approved bispecific products has been implemented as preventive measure for continued dose escalation; Patients can increase their dose to previously cleared dose levels; <sup>2</sup>q2w: once every two weeks, weekly (q1w) dosing was applied up to DL5; <sup>3</sup>IMADetect<sup>®</sup>, proprietary mRNA-based assay using Immatics' MS-guided threshold; BLRM: Bayesian logistic regression model; MTD: Maximum tolerated dose.

## Baseline Characteristics

### Heavily Pre-treated Patients with a Broad Range of Tumor Types

Characteristic	Safety Population N=35	Efficacy-evaluable Population <sup>1</sup> N=29	Patients with relevant IMA401 doses and MAGEA4/8 <sup>high</sup> levels <sup>2</sup> N=17
<b>Age</b>			
Median (min, max)	62 (19, 82)	63 (35, 82)	64 (35, 82)
<b>ECOG performance status</b>			
0 - n [%]	10 [28.6]	6 [20.7]	3 [17.6]
1 - n [%]	23 [65.7]	21 [72.4]	12 [70.6]
2 - n [%]	2 [5.7]	2 [6.9]	2 [11.8]
<b>Prior lines of systemic treatment</b>			
Median (min, max)	4 (2, 8)	3 (2, 8)	4 (2, 8)
<b>LDH at baseline</b>			
≤ 1xULN [%]	51.4	55.2	41.2
1-2xULN [%]	40.0	41.4	58.8
> 2xULN [%]	8.6	3.4	0.0
<b>Baseline tumor burden</b>			
Median target lesion sum of diameter [mm] (min, max)	74 (15, 202.8)	80 (15, 202.8)	84 (18, 202.8)
<b>Number of organs with metastases</b>			
Median (min, max)	3 (1, 6)	3 (1, 6)	3 (1, 6)
<b>Liver/ Brain Lesions</b>			
[% of patients]	40.0	41.4	47.1

<sup>1</sup>Efficacy Analysis Set (EAS) prospectively defined in the study protocol: patients who received at least four IMA401 infusions and had at least one post-baseline efficacy assessment or clinical progression. Three patients did not receive all four infusions due to clinical progression and three patients awaiting their first scans as of the data cut-off date are not included in the EAS. <sup>2</sup>Patients in this analysis had received IMA401 infusions at ≥1 mg and showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold. LDH: Lactate dehydrogenase; ULN: Upper limit of normal.

# IMA401 Demonstrates Manageable Tolerability in N=35 Patients

## Most Frequent Related AEs were Lymphopenia, CRS and Neutropenia

Treatment-related AEs <sup>1</sup> , n [%]	All Grades	≥ Grade 3
Lymphopenia	12 [34]	11 [31]
Cytokine release syndrome	11 [31]	0
Neutropenia	8 [23]	5 [14]
Facial pain	6 [17]	2 [6]
Anaemia	5 [14]	4 [11]
Thrombocytopenia	5 [14]	2 [6]
Headache	5 [14]	1 [3]
Hypertension	4 [11]	2 [6]
Leukopenia	4 [11]	2 [6]
Fatigue	4 [11]	0
Nausea	3 [9]	0
Hypoxia	2 [6]	1 [3]
Aspartate aminotransferase increased	1 [3]	1[3]
Febrile neutropenia	1 [3]	1[3]
Pneumonia	1 [3]	1[3]
Sinus tachycardia	1 [3]	1[3]

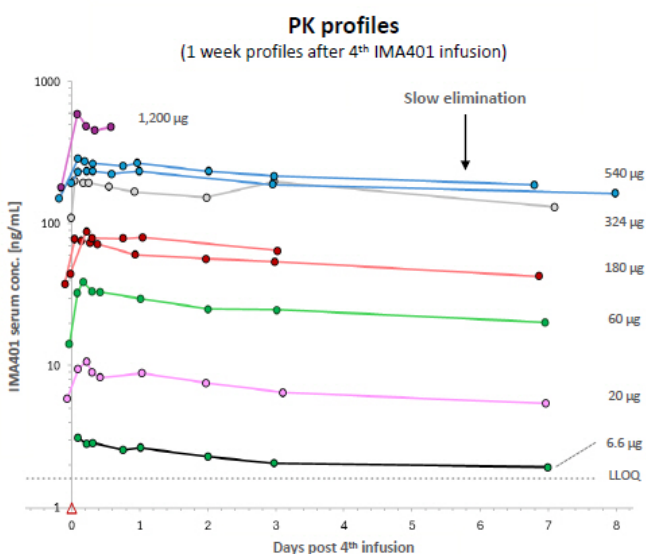
TEAEs, n [%]	All Grades	≥ Grade 3
Any	32 [91]	26 [74]
Treatment-related	28 [80]	19 [54]

- Overall **manageable tolerability** profile
- **Most frequent/relevant related AEs** were
  - transient lymphopenia,
  - mild to moderate CRS (23% Grade 1, 9% Grade 2, **no Grade ≥ 3**), majority at first dose
  - neutropenia<sup>2</sup> occurred mostly at initial target dose and fully resolved in all cases except one (see below)
  - one possibly related death (pneumonia in the context of lung tumor progression and concurrent neutropenia) as previously reported<sup>3</sup>
- **MTD not reached** based on the BLRM

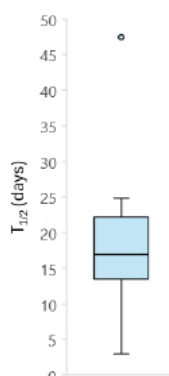
<sup>1</sup>All treatment-emergent adverse events (TEAEs) at least possibly related to IMA401 infusion with grade 1-2 occurring in at least 9% of patients and all events with grade 3-5; <sup>2</sup>with three dose-limiting events at 2.5 mg (DLT), neutropenia observed in patients with and without dexamethasone pre-medication; <sup>3</sup>reported in Annual Report 2023, patient did not receive dexamethasone pre-medication; CRS: Cytokine release syndrome; BLRM: Bayesian logistic regression model; MTD: Maximum tolerated dose.

# IMA401 Pharmacokinetics

TCER® Format Shows Extended Half-Life in Solid Cancer Patients



Median half-life:  
16.9 days (N=16)<sup>1</sup>



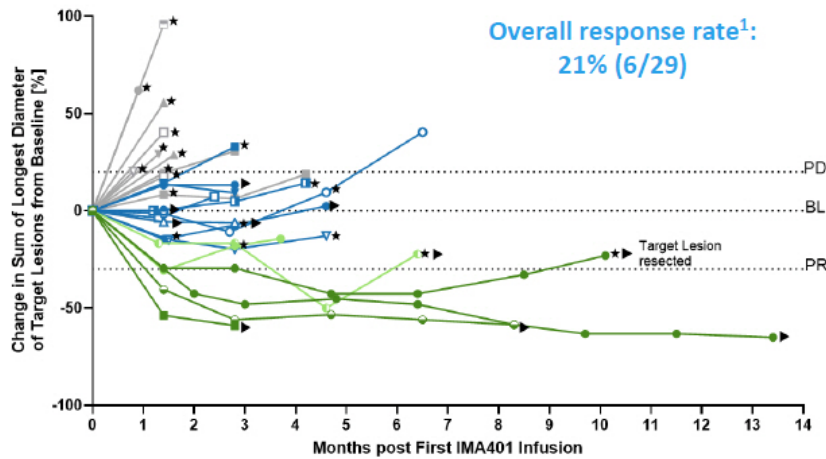
**Observed  $T_{1/2} > 2$  weeks**

- Confirms “antibody-like” half-life predicted by preclinical *in-vivo* data<sup>2</sup>
- Supports exploring increased dosing intervals of up to q4w and pursuing alignment with typically applied CPI dosing regimens

<sup>1</sup>Half-lives derived from 2<sup>nd</sup> PK profiles close to steady-state. Calculated by non-compartmental analysis (NCA) using Phoenix WinNonlin (Certara); Interquartile range (25%-75% percentile): 13.5-22.2 days; <sup>2</sup>Data presented at European Antibody Congress 2020; Zimm et al., *Nature Cancer*, 2023; <https://doi.org/10.1038/s43018-023-00516-z>; LLOQ: lower limit of quantification; q4w: once every four weeks; CPI: Checkpoint inhibitor

# IMA401 Demonstrates Initial Anti-Tumor Activity in Multiple Tumor Types

## Phase 1a Dose Escalation Across All Dose and Target Levels (DL1-7; N=29\*)



BOR (RECIST 1.1)		Cancer indications	
■	PD	●	Cut. Melanoma
■	SD	▲	Gallbladder Adenocarcinoma
■	PR	○	Gastric Adenocarcinoma
■	cPR	■	HNSCC
▶	Ongoing treatment	●	LCNEC Lung
★	Timepoint of PD according to RECIST 1.1	■	LCNEC Esophageal
		●	Muc. Melanoma
		○	NET CUP
		▲	Ovarian Carcinoma
		▲	SCLC
		■	sqNSCLC
		▲	Synovial Sarcoma
		■	TNBC

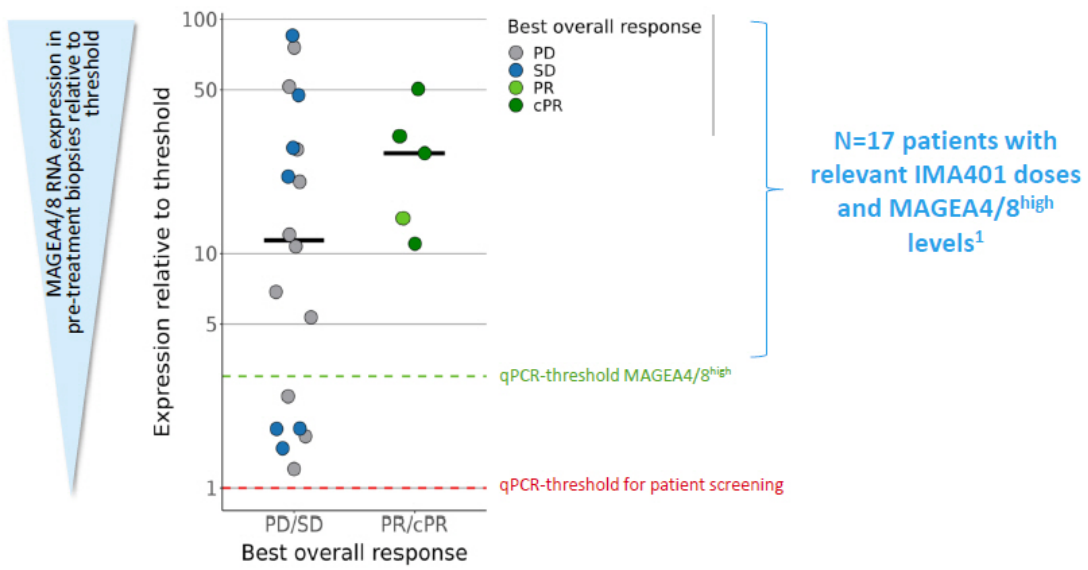
- Responses in HNSCC, neuroendocrine tumor, cut. and muc. melanoma
- Durable responses in 3 of 4 confirmed responses **ongoing** at 13+, 8+ and 3+ months
- Disease control in a number of relevant tumor types including sqNSCLC, ovarian carcinoma, TNBC, gastric adenocarcinoma, and gallbladder adenocarcinoma
- All confirmed responses in patients who had received infusions at ≥1 mg

Cancer Indications: Cut.: Cutaneous; HNSCC: Head & Neck Squamous Cell Carcinoma; LCNEC: Large Cell Neuroendocrine Carcinoma; Muc.: Mucosal; NET CUP: Neuroendocrine Tumor, Cancer of Unknown Primary; SCLC: Small Cell Lung Cancer; sqNSCLC: Squamous Non-small Cell Lung Cancer; TNBC: Triple Negative Breast Cancer.

<sup>1</sup>Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. BOR for one cut. melanoma patient is presented as SD as per iRECIST while BOR per RECIST1.1 was PD, as there was a site error in imaging baseline non-target lesions. <sup>2</sup>includes confirmed and unconfirmed PR; BL: Baseline; BOR: Best overall response; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

# Objective Responses are Associated with Target Expression

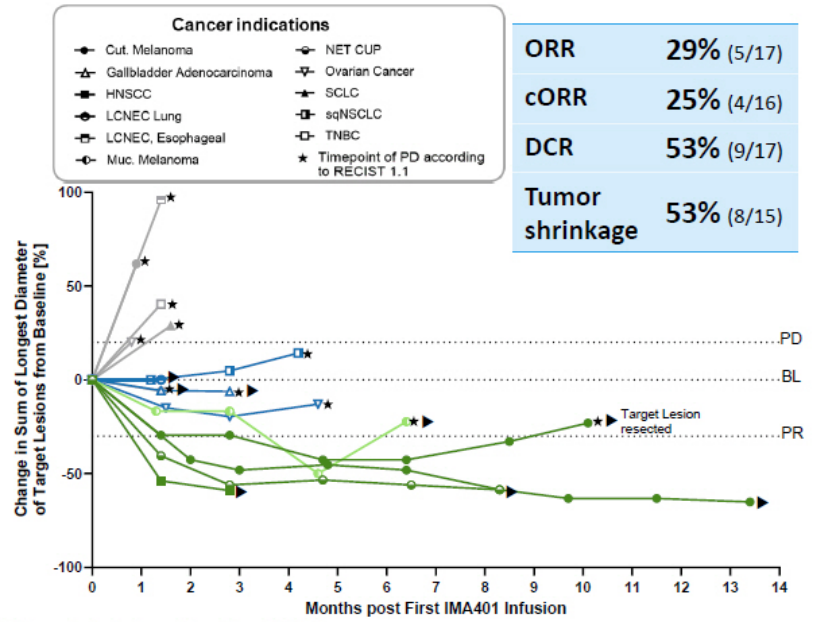
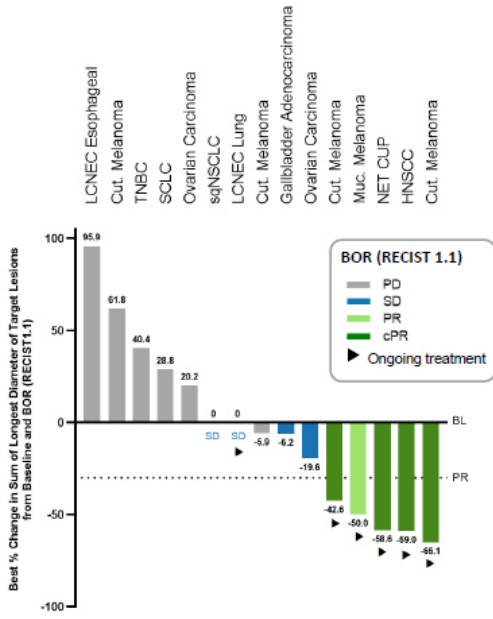
Exploratory Analysis in Patients with MAGEA4/8<sup>high</sup> Expression at Relevant IMA401 Doses (DL6-7; N=17)



<sup>1</sup>Patients in this analysis had received IMA401 infusions at  $\geq 1$  mg and showed MAGEA4/8 target expression above indicated MAGEA4/8<sup>high</sup> qPCR threshold (n=17); PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

# IMA401 Demonstrates Initial Anti-Tumor Activity in Multiple Tumor Types

## Exploratory Analysis in Patients with *MAGEA4/8*<sup>high</sup> Expression at Relevant IMA401 Doses (DL6-7; N=17\*)



Cancer Indications: Cut.: Cutaneous; HNSCC: Head & Neck Squamous Cell Carcinoma; LCNEC: Large Cell Neuroendocrine Carcinoma; Muc.: Mucosal; NET CUP: Neuroendocrine Tumor, Cancer of Unknown Primary; SCLC: Small Cell Lung Cancer; sqNSCLC: Squamous Non-small Cell Lung Cancer; TNBC: Triple Negative Breast Cancer.

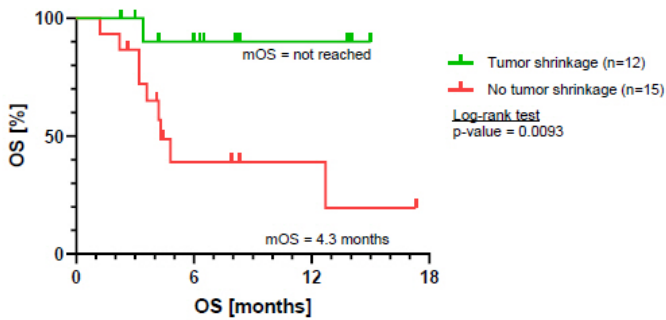
\*Patients in this analysis are part of the efficacy analysis set with at least one post-treatment tumor assessment and had received IMA401 infusions at ≥1 mg and showed *MAGEA4/8* target expression higher than the *MAGEA4/8* qPCR threshold (n=17); Confirmed ORR (cORR): Confirmed objective response rate according to RECIST 1.1 for patients with at least two available post infusion scans or patients with progressive disease (PD) at any prior timepoint; two patients not included in tumor shrinkage calculation or shown in the figures as they had clinical progression and post-treatment tumor assessment is not available; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease. Data cut-off Jul 23, 2024



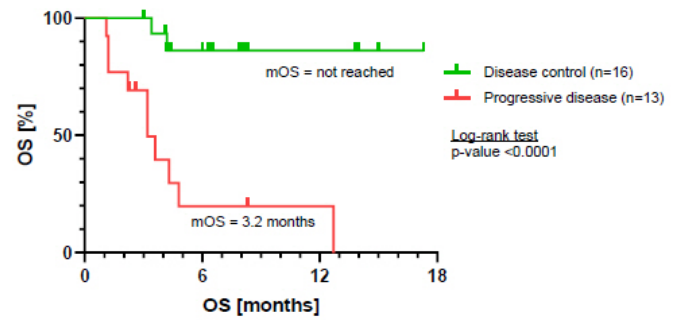
# Tumor Shrinkage and Disease Control Induced by IMA401 Associated with Prolonged Overall Survival

## Analysis Across All Doses and Target Levels (DL1-7)

OS in patients with and without tumor shrinkage (N=27\*)



OS in patients with disease control and progressive disease (N=29)

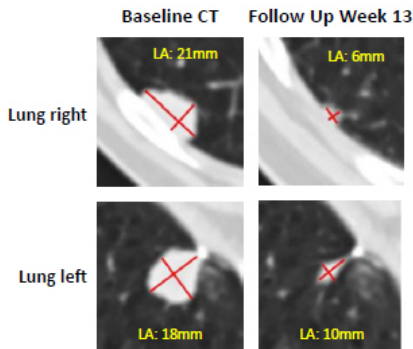


**12.7 months median OS** across multiple tumor types and all dose levels (n=29)

**Tumor shrinkage (12/27 patients) and disease control (16/29) associate with long-term outcome:**

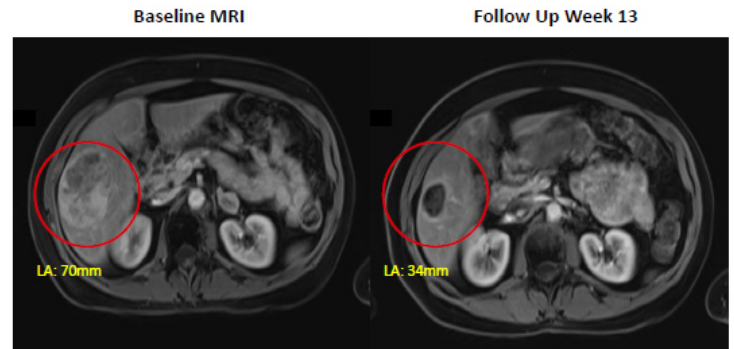
➤ **Significantly longer OS** in these groups of patients (mOS not reached vs. 4.3 months or 3.2 months, respectively)

## 63-year-old male, HNSCC, MAGEA4/8<sup>high</sup>



Patient Characteristics	Outcomes
HNSCC, Hypopharynx	cPR -59% reduction
Lesions in lung	cPR ongoing at week 12 post-treatment start
3 prior lines of therapy: Platinum chemotherapy, anti-PD-1/chemotherapy, anti-EGFR/chemotherapy	

## 60-year-old female, NET CUP, MAGEA4/8<sup>high</sup>



Patient Characteristics	Outcomes
NET CUP	cPR -56% reduction (BOR: -58.6%)
Lesions in liver, lung, bone, pancreas, adrenal gland, lymph nodes	cPR ongoing at week 36 post-treatment start
4 prior lines of therapy: Two lines of radiopharmaceuticals, chemotherapy, mTOR inhibitor	

CT and MRI scans courtesy of treating physicians (Dr. Manik Chatterjee, University Hospital Wuerzburg and Dr. Max-Felix Häring, Eberhard Karls University Tuebingen); HNSCC: Head and neck squamous cell carcinoma; NET CUP: Neuroendocrine tumor-cancer of unknown primary; LA: Long axis; cPR: confirmed Partial response; BOR: Best overall response

## First-in-human Data of IMA401 TCER® Targeting MAGEA4/8

- **Tolerability:** Most common treatment-related AEs are low-grade CRS, transient lymphopenia and neutropenia
- **Pharmacokinetics:** Median terminal half-life of 16.9 days supporting potential further flexibility in future dosing schedules incl. combination with CPI and increased dosing intervals up to q4w
- **Initial anti-tumor activity in heavily pre-treated patients**
  - Objective responses in HNSCC, neuroendocrine tumor of unknown origin, cutaneous and mucosal melanoma including durable ongoing PRs of up to 13+ months
  - Deep responses (tumor shrinkage of  $\geq 50\%$ ) in four patients including deepening of responses over time
  - Objective responses are associated with target expression and IMA401 dose: ORR 29%, cORR 25%, and tumor shrinkage in 53% of patients with relevant IMA401 doses and MAGEA4/8<sup>high</sup> target levels
- **Dose escalation ongoing**

## Special Thanks to the Patients, their Families

### ...and the IMA401 Investigators at the Clinical Sites

Dresden: Prof. M. Wermke  
Berlin: Prof. S. Ochsenreither  
Wuerzburg: Dr. M. Chatterjee  
Duesseldorf: Dr. S. Gröpper  
Tuebingen: Dr. M.-F. Häring  
Regensburg: Dr. D. Heudobler  
Heidelberg: Prof. D. Jäger  
Muenster: Prof. A. Bleckmann  
Erlangen: Dr. S. Spörl  
Nuremberg: Prof. S. Knop  
Bonn: Dr. T. Holderried  
Munich: Dr. J. Hecker  
Freiburg: Prof. H. Becker  
Chemnitz: Dr. M. Hänel  
Mainz: Dr. M. Fried  
Leipzig: Dr. G. Stocker  
Ulm: Dr. A. Babiak  
Kiel: Prof. A. Letsch



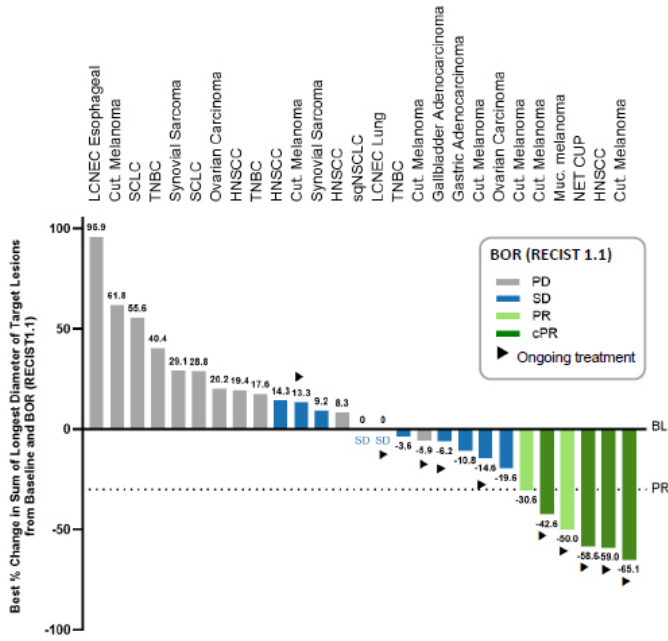
Sponsor: Immaticis



## Appendix

# IMA401 Demonstrates Initial Anti-Tumor Activity in Multiple Tumor Types

## Phase 1a Dose Escalation Across All Dose and Target Levels (DL1-7; N=29\*)



16 Different Indications	# of Patients Safety (Efficacy-evaluable) Population
Cut. Melanoma	7 (7)
Muc. Melanoma	1 (1)
Synovial Sarcoma	6 (3)
TNBC	4 (3)
HNSCC	4 (4)
SCLC	2 (2)
Ovarian Carcinoma	2 (2)
sqNSCLC	1 (1)
AdNSCLC	1 (1)
NET CUP	1 (1)
Gastric Adenocarcinoma	1 (1)
LCNEC Esophageal	1 (1)
LCNEC Lung	1 (1)
Gallbladder Adenocarcinoma	1 (1)
Bladder carcinoma	1 (0)
Testicular GCT	1 (0)

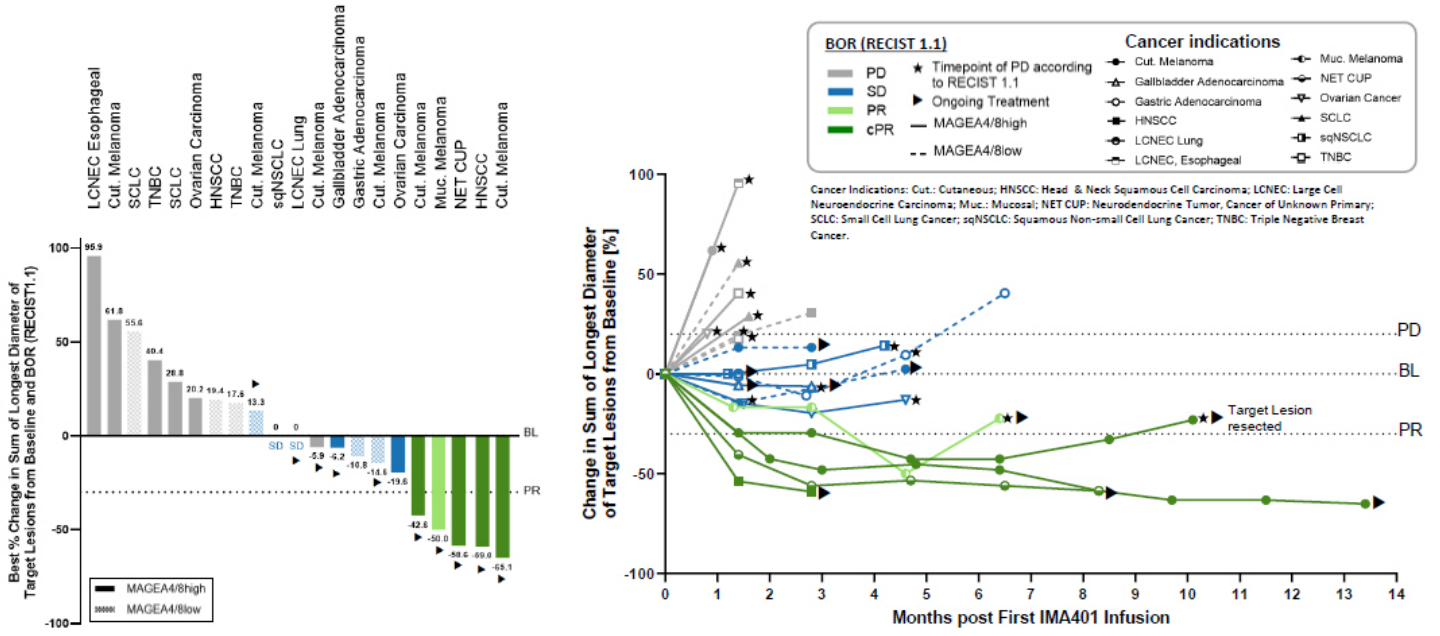
\*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. BOR for one cut. melanoma patient is presented as SD as per iRECIST while BOR per RECIST1.1 was PD, as there was a site error in imaging baseline non-target lesions.

Cancer Indications: Cut.: Cutaneous; HNSCC: Head & Neck Squamous Cell Carcinoma; LCNEC: Large Cell Neuroendocrine Carcinoma; Muc.: Mucosal; NET CUP: Neuroendocrine Tumor, Cancer of Unknown Primary; SCLC: Small Cell Lung Cancer; sqNSCLC: Squamous Non-small Cell Lung Cancer; TNBC: Triple Negative Breast Cancer.

BL: Baseline; BOR: Best overall response; PD: Progressive disease; SD: Stable disease; PR: Partial response; cPR: confirmed Partial response.

# IMA401 Demonstrates Initial Anti-Tumor Activity in Multiple Tumor Types

## Patients at Relevant IMA401 Doses (DL6-7; N=23\*)



\*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; Two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. BOR for one cut. melanoma patient is presented as SD as per iRECIST while BOR per RECIST 1.1 was PD, as there was a site error in imaging baseline non-target lesions. BOR: Best overall response; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

# Objective Responses are Associated with Target Expression

Exploratory Analysis in Patients with **MAGEA4/8<sup>high</sup>** Expression at Relevant IMA401 Doses (DL6-7; N=17)



	Patients with relevant IMA401 doses and MAGEA4/8 <sup>high</sup> levels <sup>1</sup> (N=17)	Overall efficacy-evaluable population across all dose and target levels (N=29)
ORR	<b>29%</b> (5/17)	21% (6/29)
cORR	<b>25%</b> (4/16)	14% (4/28)
DCR	<b>53%</b> (9/17)	55% (16/29)
Tumor shrinkage	<b>53%</b> (8/15)	44% (12/27)

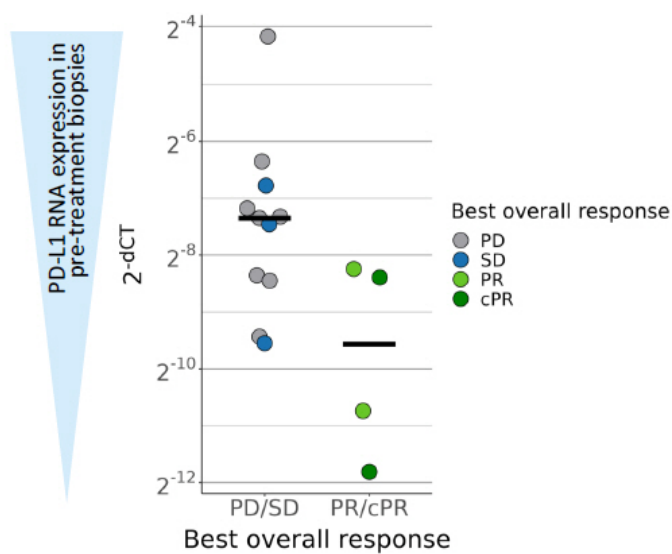
<sup>1</sup>Patients in this analysis had received IMA401 infusions at ≥1 mg and showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold (N=17); DCR: Disease Control Rate; ORR: Objective Response Rate; Confirmed objective response rate (cORR) according to RECIST 1.1 for patients with at least two available post infusion scans or patients with progressive disease (PD) at any prior timepoint; two patients not included in tumor shrinkage calculation as they had clinical progression and post-treatment tumor assessment is not available.



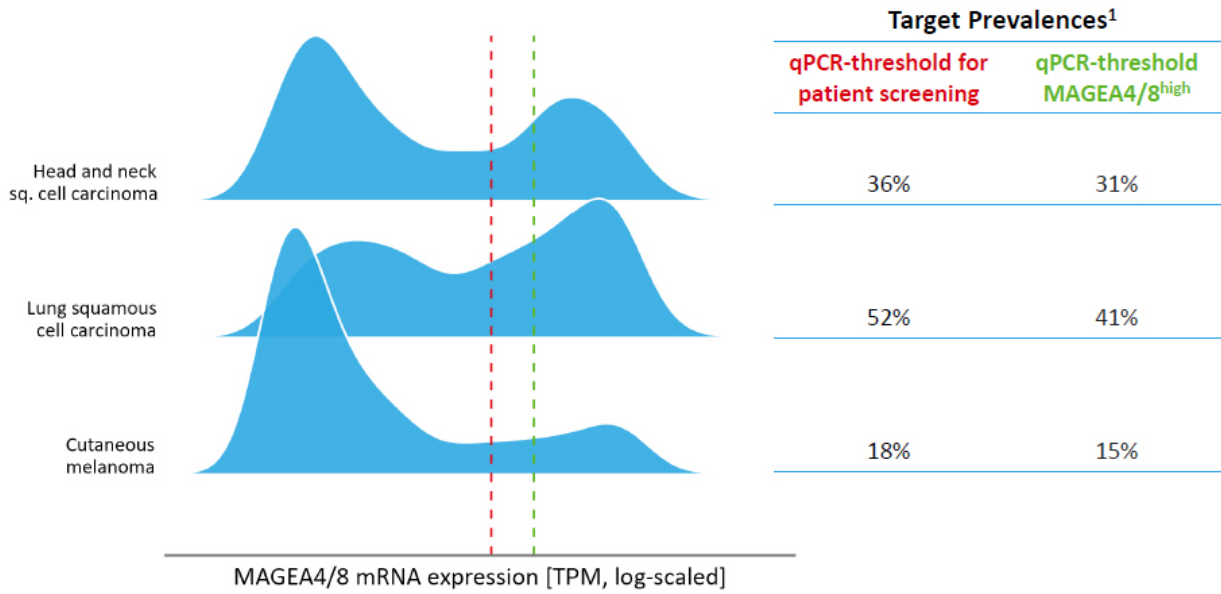
## Level of PD-L1 Expression is Associated with Clinical Outcome

Responses as per RECIST 1.1 (PR/cPR) are seen mainly in tumors with low PD-L1 expression

- In line with proposed resistance mechanism of tumor cells
- sqNSCLC and HNSCC known to express high PDL1 levels and have approved CPI therapies
  - suggests combination therapy with CPI as a logical next step



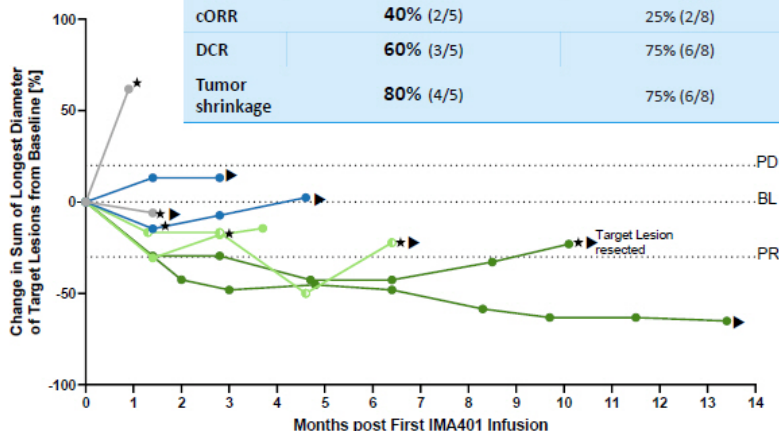
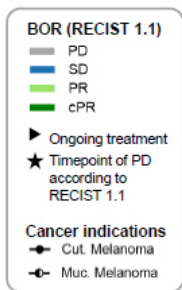
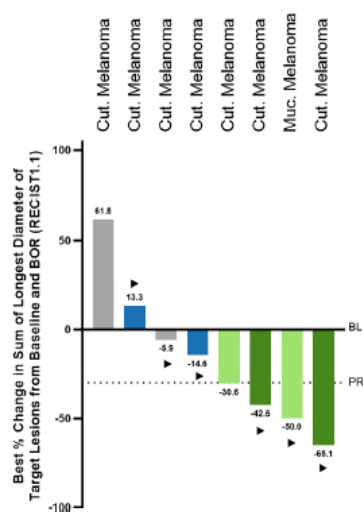
# MAGEA4/8 Target Expression Profiles Across Selected Tumor Types



MAGEA4/8 target expression distribution (blue histogram) based on TCGA RNAseq data; <sup>1</sup>MAGEA4/8 target prevalence is based on TCGA RNAseq data combined with a proprietary MS-guided RNA expression threshold.

# Initial Anti-Tumor Activity – Subanalysis of Melanoma Patients

## Phase 1a Dose Escalation Across All Dose and Target Levels (DL1-DL7; N=8\*)



\*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; BOR for one cut. melanoma patient is presented as SD as per iRECIST while BOR per RECIST1.1 was PD, as there was a site error in imaging baseline non-target lesions. <sup>1</sup>Patients in this analysis had received IMA401 infusions at ≥1 mg and showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold (N=5). DCR: Disease Control Rate; ORR: Objective Response Rate; Confirmed objective response rate (cORR) according to RECIST 1.1 for patients with at least two available post infusion scans or patients with progressive disease (PD) at any prior timepoint; two patients not included in tumor shrinkage calculation as they had clinical progression and post-treatment tumor assessment is not available. BL: Baseline; BOR: Best overall response; Cut: Cutaneous; Muc: Mucosal; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

# Baseline Characteristics – Subanalysis of Melanoma Patients

## Heavily Pre-treated Melanoma Patients

Characteristic	Safety Population:
	All Melanoma Patients (N=8)
<b>Indications</b>	Cut. Melanoma 7/8 [87.5] Muc. Melanoma 1/8 [12.5]
<b>n [%]</b>	
<b>Age</b>	
Median (min, max)	76.5 (62, 82)
<b>ECOG performance status</b>	
0 - n [%]	1 [12.5]
1 - n [%]	7 [87.5]
2 - n [%]	0 [0.0]
<b>Prior lines of systemic treatment</b>	
Median (min, max)	4 (2, 5)
<b>Prior lines of CPI treatment</b>	
Median (min, max)	2 (1, 3)
<b>Thereof patients treated with</b>	
Anti-PD1 Therapy [%]	100.0
Ipilimumab [%]	87.5
BRAF Inhibitors [%]	25.0
Experimental Therapies [%]	25.0
<b>LDH at baseline</b>	
≤ 1xULN [%]	62.5
1-2xULN [%]	37.5
>2xULN [%]	0.0
<b>Baseline tumor burden</b>	
Median target lesion sum of diameter [mm] (min, max)	71.5 (15, 178)
<b>Number of organs with metastases</b>	
Median (min, max)	3.5 (1, 5)
<b>Liver/ Brain Lesions</b>	
[% of patients]	25.0

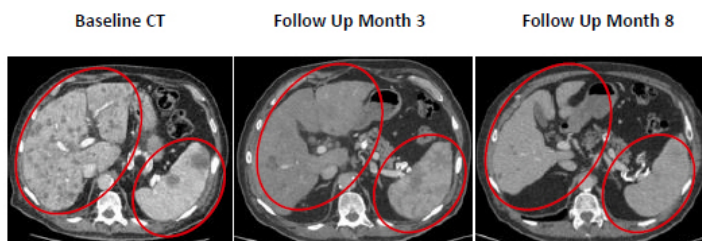
LDH: Lactate dehydrogenase; ULN: Upper limit of normal.

Data cut: 23-Jul-2024

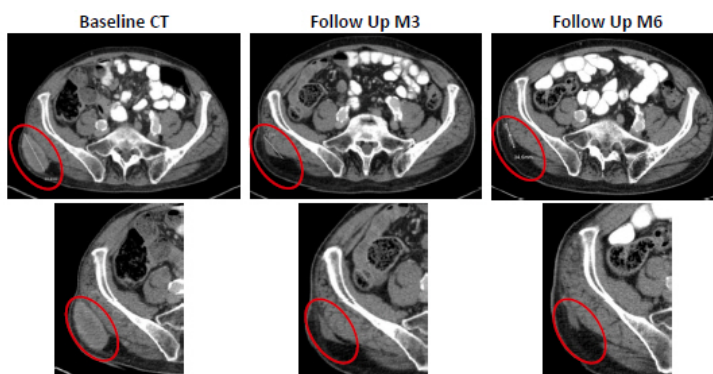
24

# Clinical Activity in Heavily Pre-Treated Melanoma Patients

75-year-old male, cut. melanoma, MAGEA4/8<sup>high</sup>



78-year-old male, cut. melanoma, MAGEA4/8<sup>high</sup>



Patient Characteristics	Outcomes
Cutaneous Melanoma	cPR -65.1% reduction
Lesions in lymph nodes, chest wall, liver, spleen	cPR ongoing at week 58 post-treatment start
5 prior lines of therapy: Anti-PD-1, RAF kinase inhibitors, MEK kinase inhibitor, oncolytic virus, Anti CTLA-4	

Patient Characteristics	Outcomes
Cutaneous Melanoma	cPR -42.6% reduction
Lesions in lymph nodes, peritoneum, soft tissue gluteal, subcutaneous	Deepening response from SD to cPR over 44 weeks post-treatment start
2 prior lines of therapy: Anti-PD-1, anti-CTLA-4/anti-PD-1	

CT scans courtesy of treating physicians (Dr. S. Ochsenreither, Charité Berlin and Dr. M. Wermke, TU Dresden); SD: Stable disease, cPR: confirmed Partial response.

Data cut-off Jul 23, 2024 25

# IMA401: Initial Anti-Tumor Activity in Heavily Pretreated Patients

Phase 1a Dose Escalation Across All Dose and Target Levels, Efficacy-evaluable Population (N=29\*)

#N	Indication	MAGEA4/8 <sup>high</sup> <sup>1</sup>	No of prior treatment lines	List of prior treatment lines	Highest DL received	Baseline Tumor Burden [mm]	BOR	BOR (Max % change of target lesions)
1	Syn. Sarcoma	Yes	3	Doxorubicin/ Ifosfamide Trabectedin Docetaxel/Gemcitabine	DL1	55	PD	29.1
2	TNBC	Yes	3	Letrozole Capecitabine Gemcitabine	DL3	57	SD	-3.6
3	Syn. Sarcoma	Yes	2	Melphalan/ Tumor Necrosis Factor Alpha Doxorubicin/ Ifosfamide	DL3	65	SD	9.2
4	HNSCC	Yes	2	Fluorouracil/ Carboplatin/ Pembrolizumab Cetuximab/ Docetaxel	DL5	112	SD	14.3
5	Cut. Melanoma	Yes	5	Nivolumab Trametinib/ Dabrafenib Binimetinib/ Encorafenib Talinogene Laherparepvec Ipilimumab	DL6a	106	cPR	-65.1
6	HNSCC, Tonsil	Yes	3	Cisplatin Carboplatin/ Fluorouracil/ Folic Acid/ Pembrolizumab Cisplatin/ Fluorouracil/ Cetuximab	DL5	48	PD	8.3
7	Cut. Melanoma	Yes	2	Pembrolizumab Ipilimumab/ Nivolumab	DL6a	61	cPR	-42.6
8	Cut. Melanoma	Yes	5	Pembrolizumab Ipilimumab/ Nivolumab/ Talimogene Laherparepvec Dacarbazine Citrate Ipilimumab/ Nivolumab Trametinib	DL5	111	PR	-30.6
9	TNBC	Yes	6	Cyclophosphamide/ Epirubicin/ Paclitaxel Paclitaxel Nanoparticle Albumin-bound/ Atezolizumab Eribulin/ Sacituzumab Govitecan/ Gemcitabine/ Carboplatin Eribulin Trastuzumab Deruxtecan Cisplatin/ Gemcitabine	DL6	52	PD	40.4
10	Ovarian Cancer	Yes	2	Carboplatin/ Paclitaxel/ Bevacizumab/ Niraparib Pegylated Liposomal Doxorubicin Hydrochloride	DL6	114	PD	20.2

\*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. <sup>1</sup>Patients showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold. BOR: Best overall response; DL: Dose level; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

Data cut-off Jul 23, 2024 26

# IMA401: Initial Anti-Tumor Activity in Heavily Pretreated Patients

## Phase 1a Dose Escalation Across All Dose and Target Levels, Efficacy-evaluable Population (N=29\*) cont.

#N	Indication	MAGEA4/8 <sup>high</sup> <sup>1</sup>	No of prior treatment lines	List of prior treatment lines	Highest DL received	Baseline Tumor Burden [mm]	BOR	BOR (Max % change of target lesions)
11	Neuroendocrine tumor, unknown origin (NET CUP)	Yes	4	Dota-tyr(3)-octreotid; Lutetium (Lu 177) Dota-tyr(3)-octreotid; Lutetium (Lu 177) Temozolomide Everolimus	DL6a	116	cPR	-58.6
12	HNSCC, oral cavity	No	2	Pembrolizumab Docetaxel Cetuximab	DL6	129	PD	19.4
13	Gastric Adenocarcinoma	No	4	Docetaxel/ Fluorouracil/ Folinic Acid/ Oxaliplatin Fluorouracil/ Folinic Acid/ Irinotecan Pembrolizumab Paclitaxel/ Ramucirumab	DL7	74	SD	-10.8
14	sqNSCLC	Yes	2	Carboplatin/ Paclitaxel Nanoparticle Albumin-bound/ Atezolizumab Docetaxel/ Ramucirumab	DL7	84	SD	0.0
15	SCLC	Yes	6	Carboplatin/ Etoposide Phosphate Topotecan Gemcitabine Nivolumab/ Ipilimumab Atezolizumab/ Cisplatin/ Etoposide Phosphate Topotecan	DL7	80	PD	28.8
16	Cut. Melanoma	Yes	5	Cobimetinib/ Vemurafenib Binimetinib/ Encorafenib Nivolumab/ Ipilimumab Binimetinib/ Encorafenib Other Antineoplastic Agents	DL7	178	PD	61.8
17	TNBC	No	5	Leuprolerin Acetate/ Exemestane/ Cyclophosphamide/ Epirubicin/ Paclitaxel Pembrolizumab Carboplatin/ Gemcitabine Hydrochloride Sacituzumab Govitecan/ Capecitabine Trastuzumab Deruxtecan	DL7	34	PD	17.6
18	Muc. Melanoma	Yes	3	Ipilimumab/ Nivolumab Nivolumab Imatinib	DL6a	18	PR	-50.0

\*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. <sup>1</sup>Patients showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold. BOR: Best overall response; DL: Dose level; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

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# IMA401: Initial Anti-Tumor Activity in Heavily Pretreated Patients

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#N	Indication	MAGEA4/8 <sup>high</sup> <sup>1</sup>	No of prior treatment lines	List of prior treatment lines	Highest DL received	Baseline Tumor Burden [mm]	BOR	BOR (Max % change of target lesions)
19	Ovarian Cancer	Yes	8	Carboplatin/ Gemcitabine/ Paclitaxel Carboplatin/ Paclitaxel/ Bevacizumab Carboplatin/ Doxorubicin/ Niraparib Letrozole Bevacizumab/ Carboplatin/ Paclitaxel Trametinib Carboplatin/ Paclitaxel Sacituzumab Govitecan	DL6a	202.8	SD	-19.6
20	Cut. Melanoma	No	2	Pembrolizumab Ipilimumab/ Nivolumab	DL6a	82	PD (iSD) <sup>2</sup>	-14.6
21	LCNEC, Esophageal	Yes	3	Carboplatin/ Etoposide Calcium Folinic Acid/Fluorouracil/Irinotecan Hydrochloride Avelumab/ Cabozantinib	DL6a	99.4	PD	95.9
22	Cut. Melanoma	No	4	Pembrolizumab Ipilimumab/ Nivolumab Dacarbazine Citrate Ipilimumab/ Nivolumab	DL6a	15	SD	13.3
23	HNSCC, Hypopharynx	Yes	3	Cisplatin/ Carboplatin Carboplatin/ Fluorouracil/ Pembrolizumab Docetaxel/ Cetuximab	DL6a	39	cPR	-59.0
24	LCNEC, Lung	Yes	2	Carboplatin/ Atezolizumab/ Etoposide Carboplatin/ Paclitaxel	DL6a	23	SD	0.0
25	Gallbladder Adenocarcinoma	Yes	6	Capecitabine Cisplatin/ Gemcitabine Fluorouracil/ Folinic Acid/ Oxaliplatin Fluorouracil/ Folinic Acid/ Irinotecan Cisplatin/ Gemcitabine Hydrochloride/ Durvalumab Pembrolizumab/ Lenvatinib	DL7	193	SD	-6.2
26	SCLC	No	3	Carboplatin/ Etoposide Atezolizumab Carboplatin/ Etoposide	DL7	81	PD	55.6

\*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. <sup>1</sup>Patients showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold. <sup>2</sup>BOR is SD as per iRECIST while BOR per RECIST1.1 was PD, as there was a site error in imaging baseline non-target lesions. BOR: Best overall response; DL: Dose level; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.

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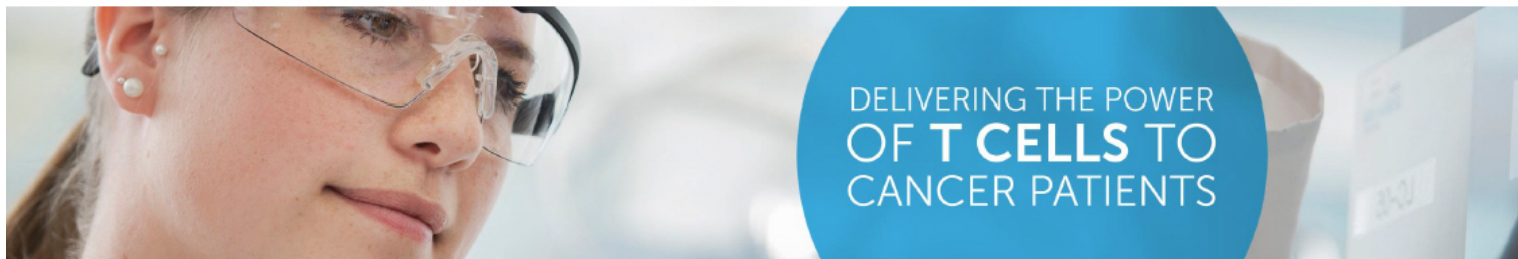


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## Phase 1a Dose Escalation Across All Dose and Target Levels, Efficacy-evaluable Population (N=29\*) cont.

#N	Indication	MAGEA4/8 <sup>high</sup> 1	No of prior treatment lines	List of prior treatment lines	Highest DL received	Baseline Tumor Burden [mm]	BOR	BOR (Max % change of target lesions)
27	Syn. Sarcoma	Yes	4	Doxorubicin/ Ifosfamide Doxorubicin/ Ifosfamide Trofosfamide Pazopanib	DL6a	169.4	PD	NA
28	Cut. Melanoma	Yes	4	Bempegaldesleukin/ Nivolumab Talimogene Laherparepvec ICT 01/ Pembrolizumab Other Antineoplastic Agents	DL6a	34	PD	-5.9
29	AdNSCLC	Yes	4	Carboplatin/ Ipilimumab/ Nivolumab/ Pemetrexed Cyclophosphamide/ Interleukin-2/ Tumor-infiltrating Lymphocytes/ Fludarabine Docetaxel/ Nintedanib Cyclophosphamide/ Fludarabine/ T-cells + Interleukin-2	DL6a	66	PD	NA

\*Patients of the Efficacy Analysis Set with at least one post-treatment tumor assessment shown; two patients are not shown as they had clinical progression and post-treatment tumor assessment is not available. <sup>1</sup>Patients showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold. BOR: Best overall response; DL: Dose level; PD: Progressive disease; PR: Partial response; cPR: confirmed Partial response; SD: Stable disease.



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

Thank you

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Please contact us via [partnering@immatics.com](mailto:partnering@immatics.com) to learn more about partnering and licensing opportunities utilizing our platform technologies XPRESIDENT<sup>®</sup>, XCEPTOR<sup>®</sup>, IMADetect<sup>®</sup>, AbsQuant<sup>®</sup> and TCR Scout<sup>®</sup>.



# Immatics Corporate Presentation

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September 16, 2024



*Delivering the Power of T cells to Cancer Patients*

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## Two Clinical-Stage Modalities

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



## Clinical PoC for Cell Therapy

High confirmed objective response rate and durable responses in melanoma; registration-enabling trial in preparation



## Differentiated Platforms

Unique technologies to identify true cancer targets and right TCRs

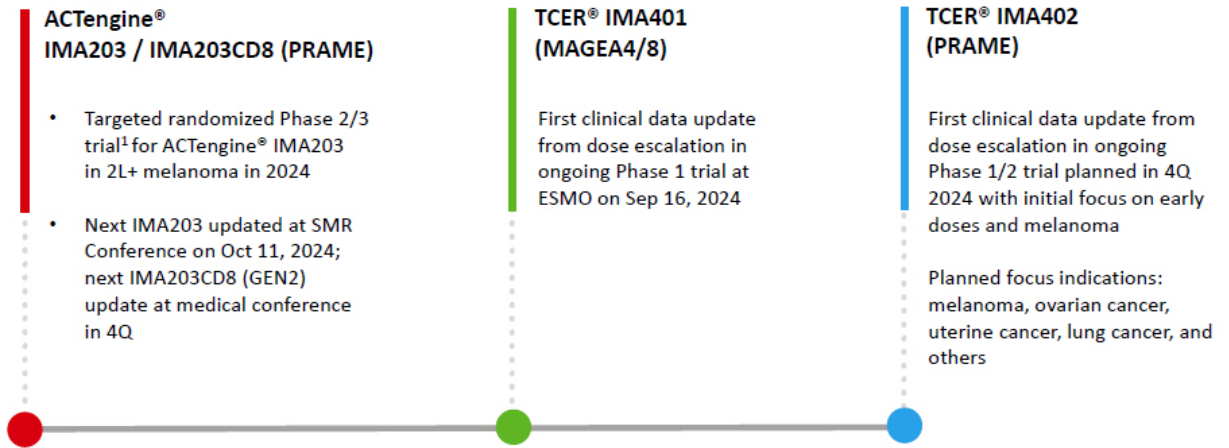


## Therapeutic Opportunity

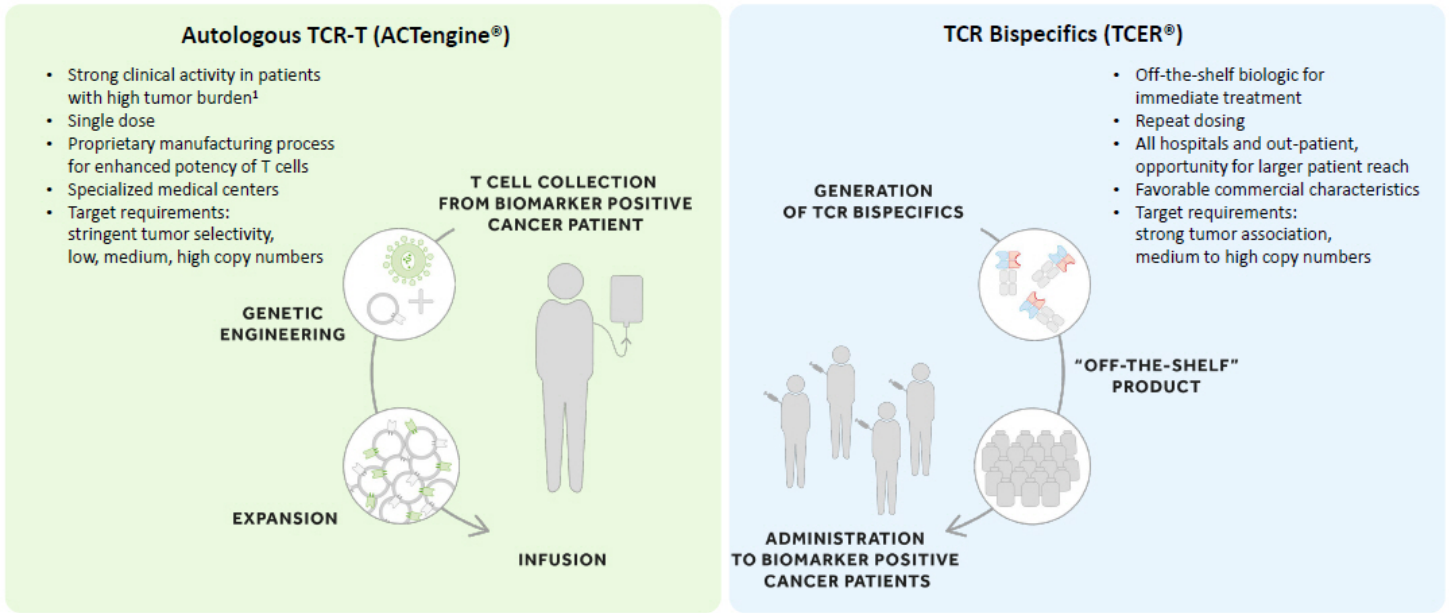
Potential for addressing large patient populations with high prevalence targets in solid tumors

# Upcoming 2024 Catalysts for ACTengine® and TCER® Clinical Lead Assets

## Projected Cash Runway into 2027 to Reach Multiple Value Inflection Points



Updates planned across the entire clinical portfolio throughout 2024



**Differentiated positioning of ACTengine® vs. TCER® based on patient population and medical need**

# Our Pipeline of TCR-based Adoptive Cell Therapies and Bispecifics

Modality	Product Candidate	Target		Preclinical	Phase 1a <sup>1</sup>	Phase 1b <sup>1</sup>	Phase 2	Phase 3
Autologous ACT	ACTengine® IMA203	PRAME						
	ACTengine® IMA203CD8	PRAME						
	ACTengine® IMA204	COL6A3						
	Multiple programs	Undisclosed						
Allogeneic ACT γδ T cells	ACTallo® IMA30x	Undisclosed						
	Multiple programs	Undisclosed						
Bispecifics	TCER® IMA401	MAGEA4/8						
	TCER® IMA402	PRAME						
	TCER® IMA40x	Undisclosed						
	Multiple programs <sup>3</sup>	Undisclosed						

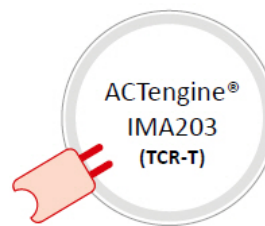
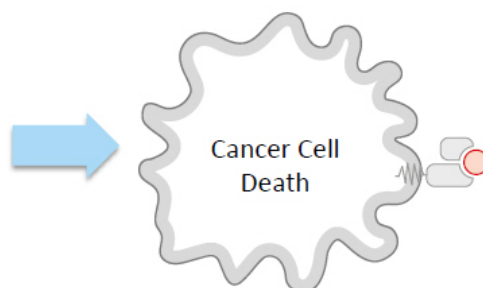
Intro <sup>1</sup> Phase 1a: Dose escalation, Phase 1b: Dose expansion; <sup>2</sup> Immatics' proprietary ACTallo® platform utilizing Editas' CRISPR gene editing technology; <sup>3</sup> mRNA-enabled *in vivo* expressed TCER® molecules 6



# Realizing the Full Multi-Cancer Opportunity of PRAME

## ACTEngine® IMA203 (TCR-T) and TCER® IMA402 (TCR Bispecific)

Indication	% PRAME positive patients <sup>1</sup>
Uterine Carcinoma	97%
Uterine Carcinosarcoma	100%
Sarcoma Subtypes	up to 100%
Cut. Melanoma	≥95%
Uveal Melanoma <sup>2</sup>	≥91%
Ovarian Carcinoma	84%
Squamous NSCLC	68%
TNBC	63%
Small Cell Lung Cancer	45%
Kidney Carcinoma	up to 40%
Cholangiocarcinoma	33%
HNSCC	27%
Esophageal Carcinoma	27%
Breast Carcinoma	26%
Adeno NSCLC	25%
HCC	18%
Bladder Carcinoma	18%



Phase 1b dose expansion ongoing

Phase 2/3 trial in preparation

TCER® IMA402 (TCR Bispecific)



Dose escalation of Phase 1/2 trial ongoing

PRAME is one of the most promising and most prevalent, clinically validated solid tumor targets known to date

Leverage the full potential of targeting PRAME by continued evaluation of the best suited therapeutic modality (ACTEngine® vs. TCER® or both) for each cancer type

# First-in-human Data of IMA401 TCER<sup>®</sup> Targeting MAGEA4/8

Presentation at ESMO on September 16, 2024

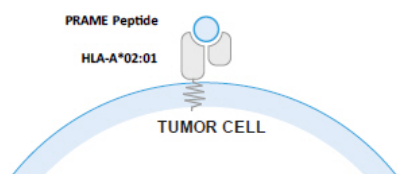
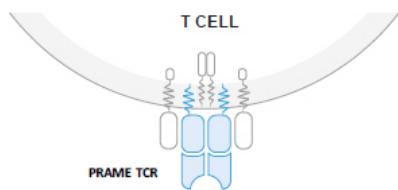
- **Tolerability:** Most common treatment-related AEs are low-grade CRS, transient lymphopenia and neutropenia
- **Pharmacokinetics:** Median terminal half-life of 16.9 days supporting potential further flexibility in future dosing schedules incl. combination with CPI and increased dosing intervals up to q4w
- **Initial anti-tumor activity in heavily pre-treated patients**
  - Objective responses in HNSCC, neuroendocrine tumor of unknown origin, cutaneous and mucosal melanoma including durable ongoing PRs of up to 13+ months
  - Deep responses (tumor shrinkage of  $\geq 50\%$ ) in four patients including deepening of responses over time
  - Objective responses are associated with target expression and IMA401 dose: ORR 29%, cORR 25%, and tumor shrinkage in 53% of patients with relevant IMA401 doses and MAGEA4/8<sup>high</sup> target levels
- **Dose escalation ongoing**



## ACTengine® IMA203 – TCR-T Targeting PRAME

# The Multi-Cancer Opportunity of PRAME

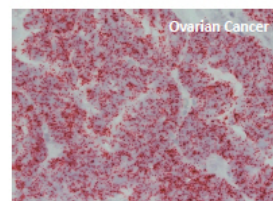
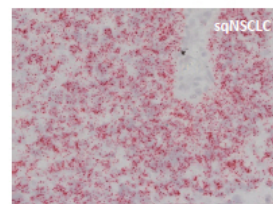
One of the Most Promising Solid Tumor Targets for TCR-based Therapies Known To Date



PRAME fulfills all properties of an ideal target for TCR-based therapies

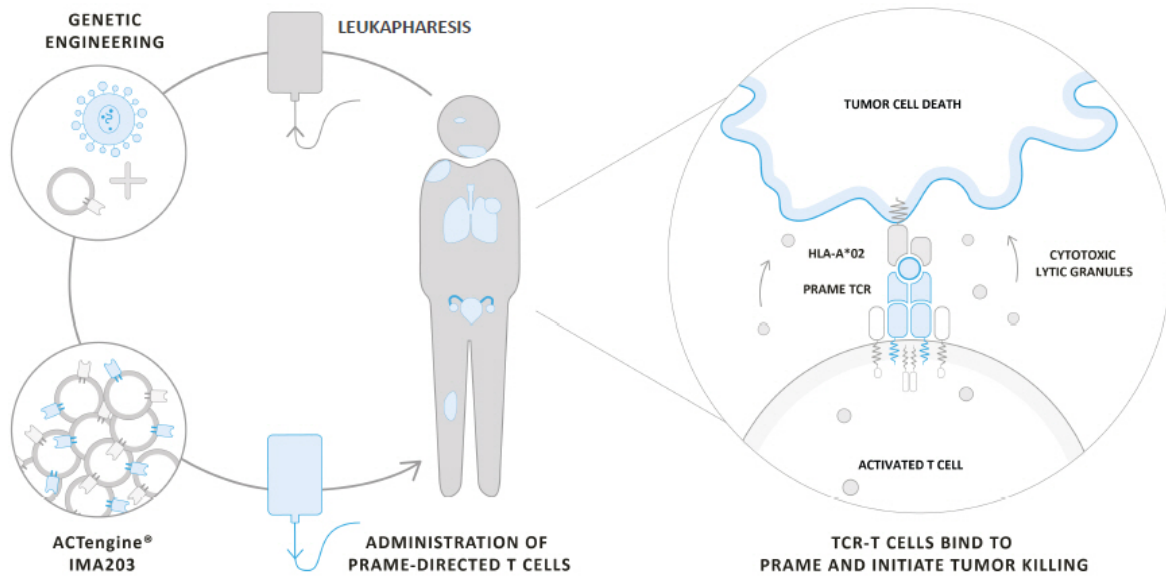
- ✓ High prevalence
- ✓ High target density
- ✓ Homogeneous expression
- ✓ “Clean” expression profile
- ✓ Clinical proof-of-concept

PRAME RNA detection in tumor samples (ISH)



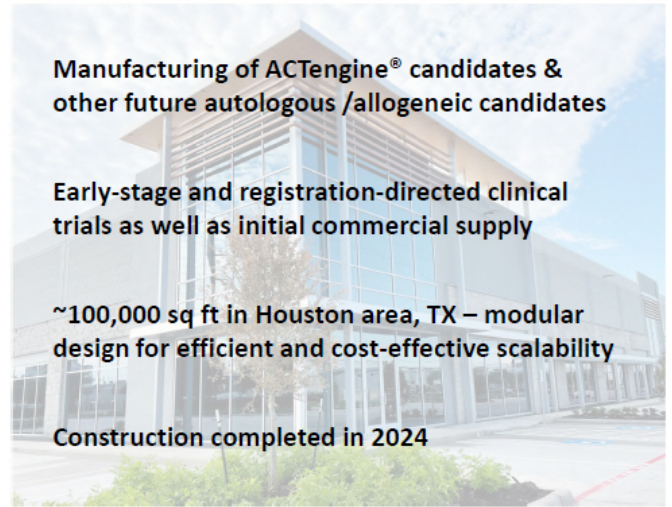
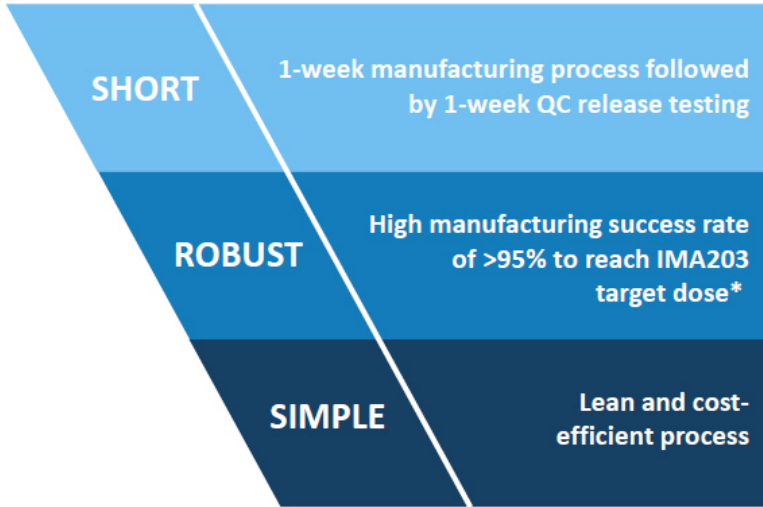
# ACTengine® IMA203 Targeting PRAME – Mechanism of Action

## Immatics' Leading TCR-T Approach



**Proprietary Manufacturing Process**

**State-of-the-art Research & GMP Manufacturing Facility**

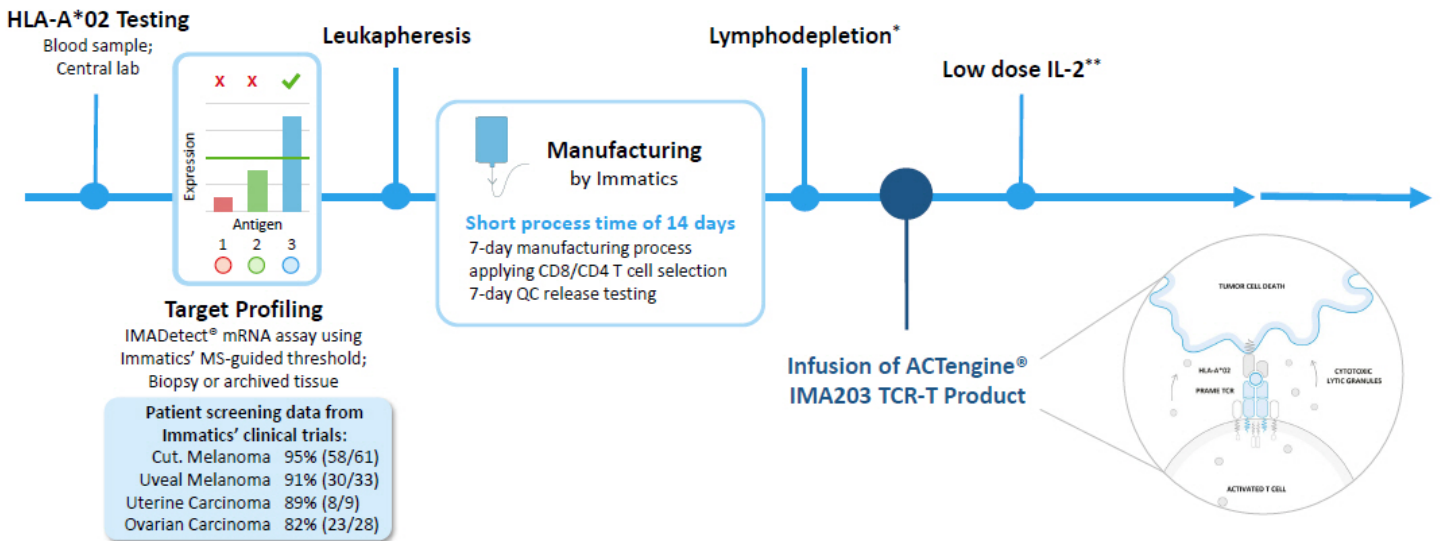


## Screening & Manufacturing Phase

## Treatment & Observation Phase

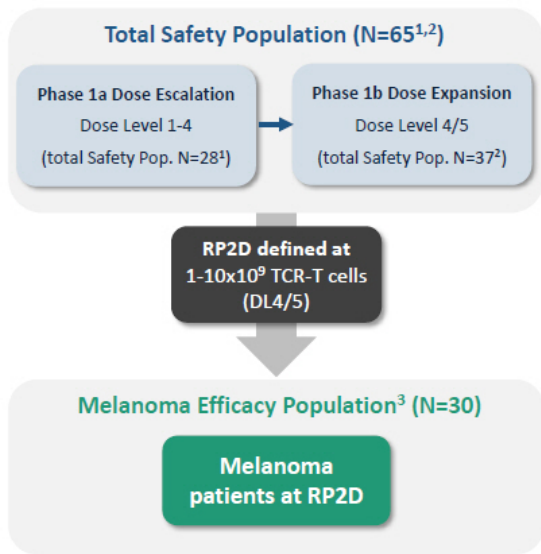
## Long Term Follow-up

Safety and efficacy monitoring for 12 months



# ACTengine® IMA203 TCR-T Trial in Advanced Solid Tumors

## Heavily Pretreated Patient Population



For comprehensive patient flow chart, see appendix

	Total Safety Population	Melanoma Efficacy Population <sup>3</sup>
	All Comers (Phase 1a and Phase 1b)	Melanoma (at RP2D)
	Total: N=65 <sup>1,2</sup>	Total: N=30
<b>Number of patients</b>		Cutaneous melanoma: N=17 Uveal melanoma: N=10 Melanoma of unknown primary: N=1 Mucosal melanoma: N=2
<b>Prior lines of systemic treatment (median, min, max)</b>	3 (0, 10)	3 (0, 7)
<b>Thereof CPI (melanoma only) (median, min, max)</b>	2 (0, 4)	2 (0, 4)
<b>LDH at baseline &gt;1 x ULN [% of patients]</b>	64.6	63.3
<b>Baseline tumor burden Median Target lesion sum of diameter [mm] (min, max)</b>	117.5 (15.0, 309.8)	107.5 (15.0, 309.8)
<b>Liver/Brain Lesions at Baseline [% of patients]</b>	63.1	70.0
<b>Dose level</b>	DL1-5	DL4/5

IMA203 <sup>1</sup>One patient started lymphodepletion but did not receive IMA203 TCR-T cells; <sup>2</sup>One additional patient who received IMA203 TCR-T cells shortly before data cut-off is not included; <sup>3</sup>Patients with at least one available tumor response assessment post infusion; RP2D: Recommended Phase 2 Dose of 1-10x10<sup>9</sup> total TCR-T cells; CPI: Checkpoint inhibitors; IMA203 DL4: 0.2-1.2x10<sup>9</sup> TCR-T cells/m<sup>2</sup> BSA; IMA203 DL5: 1.201-4.7x10<sup>9</sup> TCR-T cells/m<sup>2</sup> BSA



# Safety Profile of IMA203 across All Dose Levels in Phase 1a/b



## All ≥Grade 3 Adverse Events (N=65<sup>1,2</sup>)

TEAEs by maximum severity for all patients in Phase 1a and Phase 1b (N=65<sup>1,2</sup>)

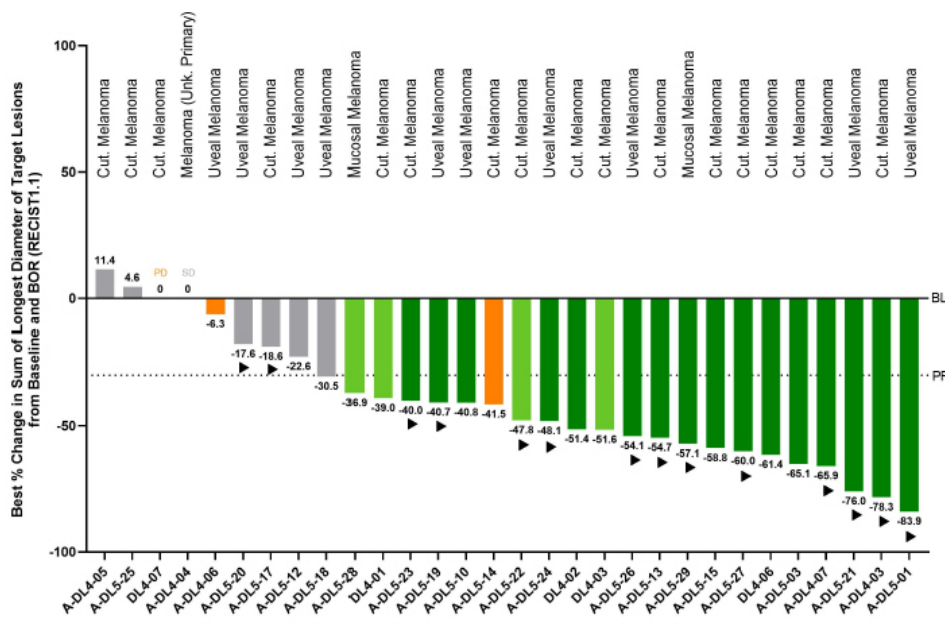
Adverse event (System organ class, Preferred term)	≥ Grade 3 No.	%	Adverse event (System organ class, Preferred term)	≥ Grade 3 No.	%	Adverse event (System organ class, Preferred term)	≥ Grade 3 No.	%
<b>Patients with any adverse event</b>	<b>65</b>	<b>100.0</b>	<b>table continued...</b>			<b>table continued...</b>		
<b>Adverse Events of Special Interest</b>	<b>10</b>	<b>15.4</b>	<b>Metabolism and nutrition disorders</b>	<b>7</b>	<b>10.8</b>	<b>Nervous system disorders</b>	<b>2</b>	<b>3.1</b>
Cytokine release syndrome	9	13.8	Hypokalaemia	3	4.6	Headache	1	1.5
ICANS <sup>3</sup>	3	4.6	Hyponatremia	3	4.6	Posterior reversible encephalopathy syndrome	1	1.5
<b>Blood and lymphatic system disorders</b>	<b>65</b>	<b>100.0</b>	Hypophosphataemia	2	3.1	<b>Endocrine disorders</b>	<b>1</b>	<b>1.5</b>
Neutropenia	57	87.7	Dehydration	1	1.5	Inappropriate antidiuretic hormone secretion	1	1.5
Leukopenia	33	50.8	Failure to thrive	1	1.5	<b>Hepatobiliary disorders</b>	<b>1</b>	<b>1.5</b>
Anaemia	34	52.3	<b>Vascular disorders</b>	<b>6</b>	<b>9.2</b>	Cholangitis	1	1.5
Lymphopenia	33	50.8	Hypertension	5	7.7	<b>Immune system disorders</b>	<b>1</b>	<b>1.5</b>
Thrombocytopenia	23	35.5	Hypotension	1	1.5	Haemophagocytic lymphohistiocytosis	1	1.5
Febrile neutropenia	2	3.1	<b>Gastrointestinal disorders</b>	<b>9</b>	<b>13.8</b>	<b>Reproductive system and breast disorders</b>	<b>1</b>	<b>1.5</b>
Cytopenia	1	1.5	Abdominal pain	3	4.6	Vaginal haemorrhage	1	1.5
Leucocytosis	1	1.5	Diarrhoea	1	1.5			
<b>Infections and infestations</b>	<b>10</b>	<b>15.4</b>	Ileus	1	1.5			
Urinary tract infection	2	3.1	Vomiting	1	1.5			
Appendicitis	1	1.5	<b>General disorders and administration site conditions</b>	<b>4</b>	<b>6.2</b>			
COVID-19	1	1.5	Fatigue	1	1.5			
Cytomegalovirus infection reactivation	1	1.5	General physical health deterioration <sup>4</sup>	1	1.5			
Enterococcal infection	1	1.5	Pyrexia	1	1.5			
Human herpesvirus 6 encephalitis	1	1.5	Swelling face	1	1.5			
Infection	1	1.5	<b>Renal and urinary disorders</b>	<b>4</b>	<b>6.2</b>			
Orchitis	1	1.5	Acute kidney injury <sup>5</sup>	2	3.1			
Sepsis <sup>6,7</sup>	1	1.5	Nephritis	1	1.5			
Septic shock <sup>8</sup>	1	1.5	Proteinuria	1	1.5			
<b>Investigations</b>	<b>10</b>	<b>15.4</b>	<b>Skin and subcutaneous tissue disorders</b>	<b>4</b>	<b>6.2</b>			
Alanine aminotransferase increased	6	9.2	Rash maculo-papular	3	4.6			
Aspartate aminotransferase increased	5	7.7	Eczema	1	1.5			
Blood creatinine increased	2	3.1	<b>Cardiac disorders</b>	<b>2</b>	<b>3.1</b>			
Blood alkaline phosphatase increased	1	1.5	Arrhythmias	2	3.1			
Blood bilirubin increased	1	1.5	Altrial fibrillation <sup>9</sup>	1	1.5			
Blood fibrinogen decreased	1	1.5	<b>Eye disorders</b>	<b>2</b>	<b>3.1</b>			
Lymphocyte count increased	1	1.5	Periorbital oedema	1	1.5			
<b>Respiratory, thoracic and mediastinal disorders</b>	<b>10</b>	<b>15.4</b>	Ulcerative keratitis	1	1.5			
Hypoxia	5	7.7	<b>Injury, poisoning and procedural complications</b>	<b>2</b>	<b>3.1</b>			
Pleural effusion	2	3.1	Humerus fracture	1	1.5			
Bronchial obstruction	1	1.5	Infusion related reaction	1	1.5			
Dyspnoea	1	1.5	<b>Musculoskeletal and connective tissue disorders</b>	<b>2</b>	<b>3.1</b>			
Epistaxis	1	1.5	Back pain	1	1.5			
Laryngeal inflammation	1	1.5	Muscle spasms	1	1.5			
Respiratory failure	1	1.5						

- Favorable safety profile at doses as high as ~10x10<sup>9</sup> TCR-T cells
- Mostly mild to moderate CRS
- Infrequent ICANS (6.2% Gr1, 4.6% Gr2, 4.6% Gr3)
- No IMA203-related Grade 5 Adverse Events
- Full IMA203 monotherapy safety profile is generally consistent with safety in melanoma subset

All treatment-emergent adverse events (TEAEs) with a Grade 3 regardless of relatedness to study treatment. 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, version 5.0. Grades for Cytokine release syndrome and ICANS were determined according to CARTOX criteria (Nadapu et al., 2018). Patients are counted only once per adverse event and severity classification. Based on interim data extracted from open clinical database (25-Apr-2024): <sup>1</sup> One additional patient who received IMA203 TCR-T cells shortly before data cut-off is not included; no grade ≥3 serious adverse events were reported for this patient in the safety database at data cut-off; <sup>2</sup> Two patients with disease progression after first IMA203 infusion received exploratory second IMA203 infusion. They had these ≥ Grade 3 TEAEs only after second infusion, which are included in the table: First patient: Abdominal pain, Cytokine release syndrome, Diarrhoea, Hypokalaemia, Proteinuria; Second patient: Humerus fracture, Muscle spasms, Neutropenia, Thrombocytopenia; <sup>3</sup> ICANS: Immune effector cell-associated neurotoxicity syndrome; <sup>4</sup> Fatal Adverse events were not considered related to any study drug; <sup>5</sup> Patient died from sepsis of unknown origin and did not receive IMA203 TCR-T cells; <sup>6</sup> One additional case of acute kidney injury without severity grading entered in eCRF at data cut-off; <sup>7</sup> DLT: Dose limiting toxicity in phase 1a at DL2 reported on March 17, 2021.

# Best Overall Response for IMA203

## Objective Responses in Heavily Pretreated Melanoma Patients at RP2D



**cORR 55% (16/29)**

**median DOR 13.5 months**

min, max DOR 1.2+, 21.5+ months

11/16 confirmed responses ongoing

ORR 67% (20/30)

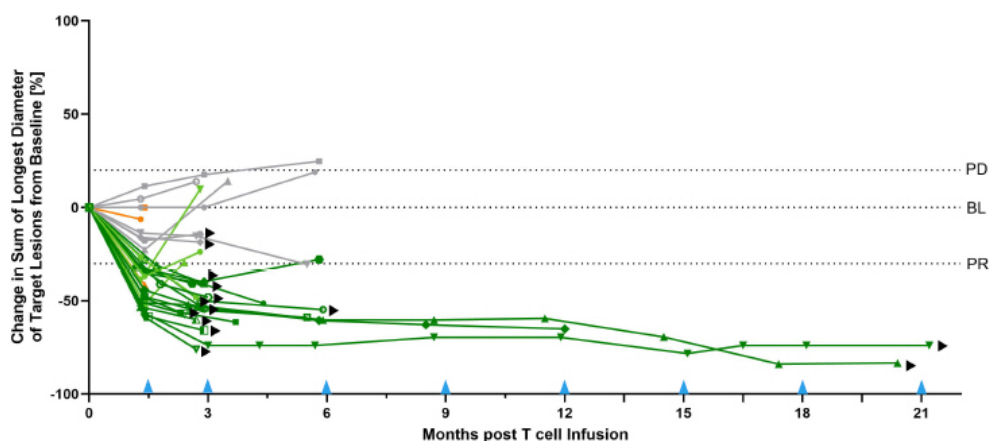
Tumor shrinkage\* 87% (26/30)

DCR (at week 6) 90% (27/30)



# Response over Time of IMA203

## Durable Responses 20+ Months after Treatment in Heavily Pretreated Melanoma Patients at RP2D



**cORR 55% (16/29)**

**median DOR 13.5 months**

min, max DOR 1.2+, 21.5+ months

11/16 confirmed responses ongoing

ORR 67% (20/30)

Tumor shrinkage\* 87% (26/30)

DCR (at week 6) 90% (27/30)

Best overall response (RECIST 1.1)	cPR						PR		SD		PD	
DL4-02	A-DL5-13	A-DL5-26	A-DL4-04	A-DL5-25	A-DL4-06	A-DL5-10	A-DL5-28	A-DL4-05	A-DL5-12	A-DL4-07	A-DL5-14	
DL4-06	A-DL5-15	A-DL4-07	A-DL5-22	A-DL5-18	A-DL5-03	A-DL5-24	DL4-03	A-DL5-17	A-DL5-20			
A-DL5-01	A-DL5-19	A-DL5-27	DL4-01									
A-DL4-03	A-DL5-21	A-DL5-29										
A-DL5-03	A-DL5-23											
A-DL5-10	A-DL5-24											

▶ Ongoing  
 ▲ Scans at approximately week 6, month 3 and then every 3 months

## Summary of Clinical Data and Planned Next Steps



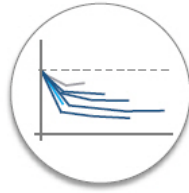
### Safety

Favorable safety profile: mostly mild to moderate CRS; infrequent ICANS (6.2% Gr1, 4.6% Gr2, 4.6% Gr3); no treatment related deaths



### Anti-Tumor Activity

55% (16/29) cORR and 90% (27/30) DCR



### Durability

13.5 months mDOR and ongoing responses at 20+ months



### RP2D

RP2D defined at 1-10x10<sup>9</sup> total TCR-T cells



### Broad Reach

FDA RMAT designation received in multiple PRAME expressing cancers including cutaneous and uveal melanoma

### Next Steps

Ongoing alignment with FDA on trial design of the randomized Phase 2/3 trial in 2L+ melanoma to start in 2024

# IMA203 in Melanoma Targeted to Enter Randomized Phase 2/3 Trial in 2L+ Melanoma in 2024

## Clinically and Commercially Attractive Features of IMA203

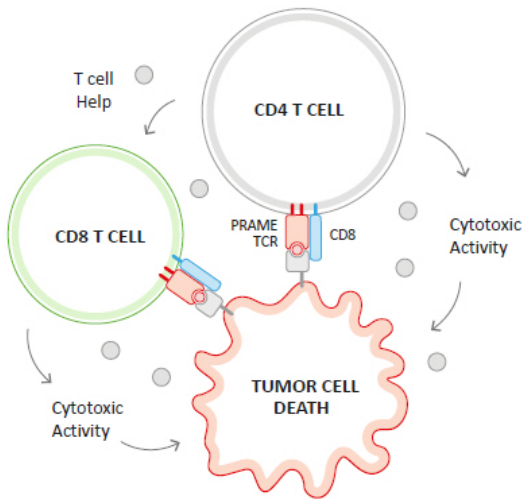
≥95% of cutaneous melanoma patients are PRAME-positive
Favorable safety profile mostly mild to moderate CRS, infrequent ICANS (6.2% Gr1, 4.6% Gr2, 4.6% Gr3), no treatment related deaths
Promising anti-tumor activity (cORR, mDOR)
Leukapheresis as source for cell product, no surgery required
Short manufacturing time of 7 days plus 7 days of QC release testing
Low dose IL-2 post IMA203 infusion with better tolerability profile than high dose IL-2

## High Unmet Medical Need in Cutaneous and Uveal Melanoma

	Cutaneous Melanoma	Uveal Melanoma
Patient Population	2L+ CPI-refractory, BRAF/MEK inhibitor-refractory if BRAF mutation+	2L+ Kimmtrak-refractory, CPI/chemotherapy-refractory
IMA203 Opportunity	~3,000 HLA-A*02:01 and PRAME-positive cutaneous melanoma patients annually in the US <sup>1</sup>	~300 HLA-A*02:01 and PRAME-positive uveal melanoma patients annually in the US <sup>2</sup>

IMA203

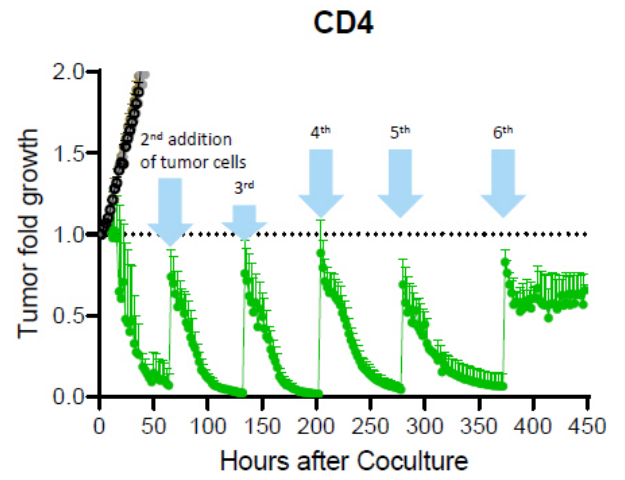
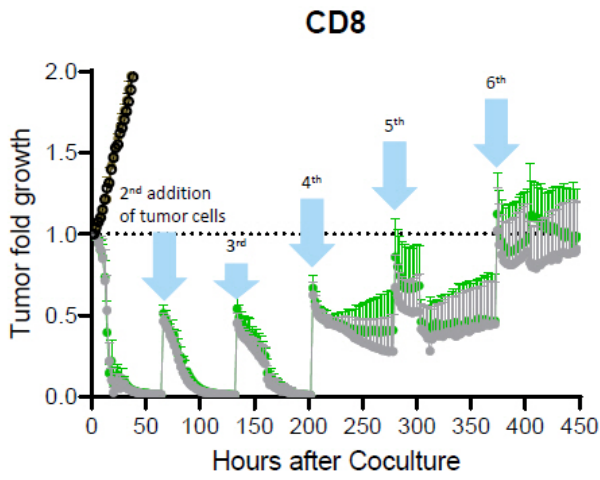
CPI: Checkpoint inhibitor; <sup>1</sup> Based on annual mortality of ~7,700 cutaneous melanoma patients in the US, HLA-A\*02:01 prevalence of 41% in the US and PRAME prevalence of 95% (TCGA RNAseq data combined with proprietary MS-guided RNA expression threshold); <sup>2</sup> Based on annual mortality of ~800 uveal melanoma patients in the US, HLA-A\*02:01 prevalence of 41% in the US and PRAME prevalence of 91% (IMADetect<sup>®</sup> qPCR testing of screening biopsies from clinical trial patients (n=33)) Data cut-off Apr 25, 2024 19



- IMA203CD8 (GEN2) designed to broaden the clinical potential of IMA203 TCR-T monotherapy by adding functional CD4 T cells via co-transduction of CD8 $\alpha\beta$  alongside PRAME TCR
- Activated CD4 T cells aid activity of other immune cells by releasing cytokines and acquire cytotoxic functions
- Functional CD4 T cells mediate longer anti-tumor activity than CD8 T cells and potentiate the anti-tumor activity of the cell product in preclinical studies<sup>1</sup>
- Data from CD19 CAR-T-treated leukaemia patients suggest a relevant role of engineered CD4 T cells in long-term durability<sup>2</sup>

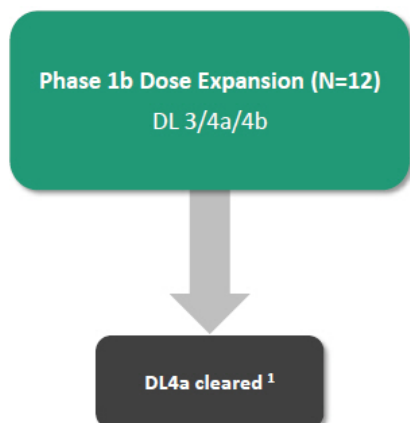
# IMA203CD8 (GEN2) – Preclinical Assessment of Anti-Tumor Efficacy

Functional CD4 T cells Mediate Longer Anti-Tumor Activity than CD8 T cells *in vitro*



# IMA203CD8 (GEN2) – Overview of Patient Characteristics

Data cut-off as of Sep 30, 2023



	All Comers
<b>Efficacy population*</b>	N=12
<b>Prior lines of systemic treatment</b> (median, min, max)	3 (1, 5)
<b>LDH at baseline</b> >1 x ULN [% of patients]	50.0
<b>Baseline tumor burden</b> Median target lesion sum of diameter [mm] (min, max)	79.8 (20.0, 182.0)
<b>Dose level</b>	DL3/DL4a/DL4b



## Tolerability Data – IMA203CD8 (GEN2)

### All ≥Grade 3 Adverse Events (N=12)

TEAEs by maximum severity for all patients (N=12)

Adverse event (System organ class, preferred term)	≥ Grade 3	
	No.	%
Patients with any adverse event	12	100.0
Adverse events of special interest	3	25.0
Cytokine release syndrome <sup>1</sup>	3	25.0
Immune effector cell-associated neurotoxicity syndrome	0	0.0
<b>Blood and lymphatic system disorders</b>	<b>11</b>	<b>91.7</b>
Neutropenia	9	75.0
Anaemia	8	66.7
Lymphopenia	8	66.7
Thrombocytopenia	4	33.3
Leukopenia	2	16.7
<b>Investigations</b>	<b>4</b>	<b>33.3</b>
Aspartate aminotransferase increased	2	16.7
Neutrophil count decreased	2	16.7
Alanine aminotransferase increased	1	8.3
Blood alkaline phosphatase increased	1	8.3
Blood bilirubin increased	1	8.3
Gamma-glutamyltransferase increased	1	8.3
<b>Metabolism and nutrition disorders</b>	<b>2</b>	<b>16.7</b>
Hypermagnesaemia	1	8.3
Hypoalbuminaemia	1	8.3
Hypophosphataemia	1	8.3
<b>Nervous system disorders</b>	<b>2</b>	<b>16.7</b>
Neurotoxicity <sup>2</sup>	1	8.3
Syncope	1	8.3
<b>Immune system disorders</b>	<b>1</b>	<b>8.3</b>
Haemophagocytic lymphohistiocytosis <sup>2</sup>	1	8.3
<b>Infections and infestations</b>	<b>1</b>	<b>8.3</b>
Infection	1	8.3

- Manageable tolerability
- Most frequent ≥Grade 3 AEs were expected cytopenia associated with lymphodepletion
- No IMA203CD8-related Grade 5 Adverse Events<sup>1</sup>
- Dose escalation ongoing

All treatment-emergent adverse events (TEAEs) with ≥ Grade 3 regardless of relatedness to study treatment that occurred in at least 1 patient (except for ICANS, where no event was documented; listed for completeness due to being an adverse event of special interest) are presented. Adverse events were coded using the Medical Dictionary for Regulatory Activities. Grades were determined according to National Cancer Institute Common Terminology Criteria for Adverse Events, version 5.0. Grades for CRS and ICANS were determined according to CARTOX criteria (Neelapu et al., 2018). Patients are counted only once per adverse event and severity classification. Based on interim data extracted from open clinical database (30-Sep-2023); <sup>1</sup> DLT: Dose limiting toxicity in patient DL4b-04. <sup>2</sup> DLTs in patient DL4b-01;

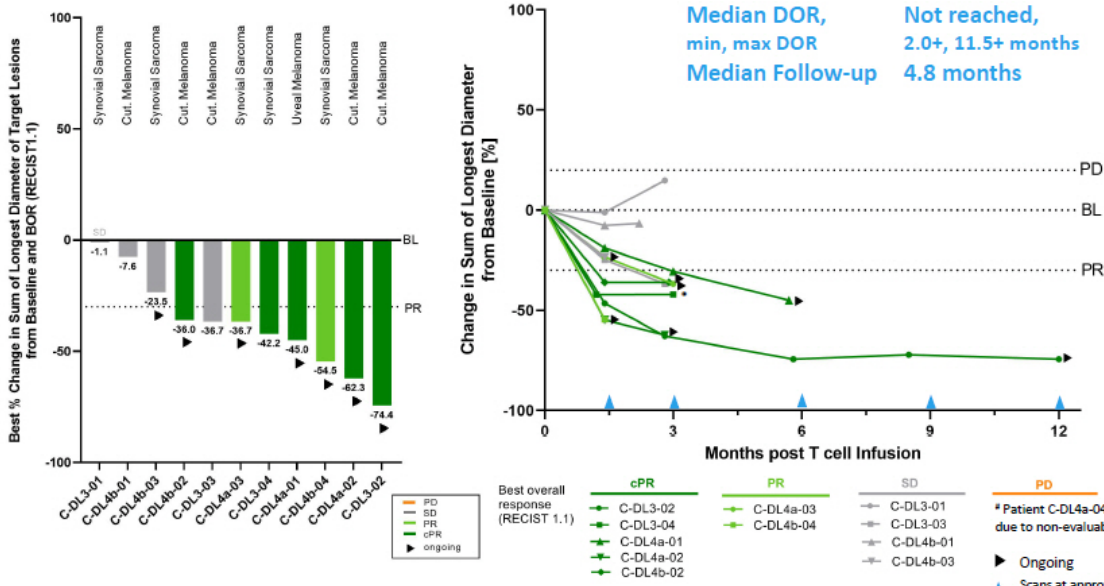
IMA203CD8

<sup>1</sup> Subsequent to data cut-off a Grade 5 event, possibly related to treatment, was observed. The patient's immediate cause of death was considered to be fatal sepsis, aggravated by the immunosuppression, a high-grade Immune Effector Cell-Associated Hemophagocytic Lymphohistiocytosis-Like Syndrome (IEC-HS), and the fast-progressing disease.

Data cut-off Sep 30, 2023 23

# IMA203CD8 (GEN2) (N=12#) – BOR and Response over Time

Data cut-off Sep 30, 2023



Median DOR, min, max DOR  
 Median Follow-up  
 Not reached, 2.0+, 11.5+ months  
 4.8 months

ORR 58% (7/12)  
 cORR 56% (5/9)

- 6 out of 7 responses ongoing
- 11/12 patients show tumor shrinkage
- Deepening of response from SD to PR in two patients (C-DL4a-01, C-DL4a-03)
- Ongoing durable response 12+ months after infusion

# IMA203CD8 (GEN2): Translational Data Shows Enhanced Pharmacology

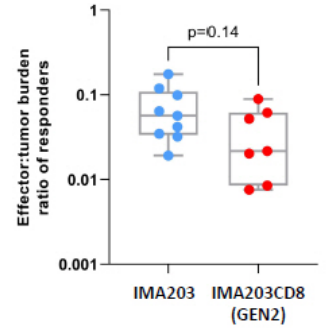
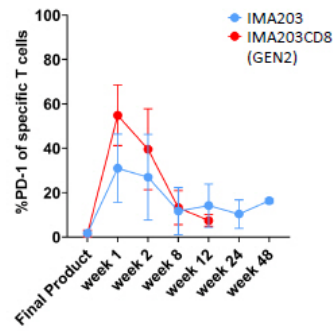
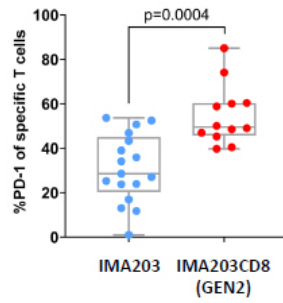
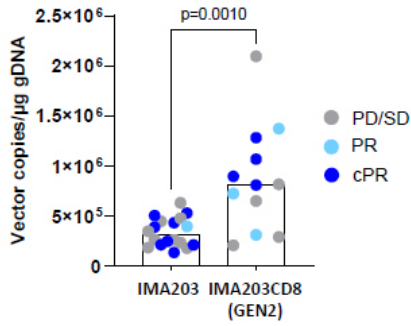
## IMA203 Phase 1b vs IMA203CD8 (GEN2)

Higher peak expansion ( $C_{max}$ ) of IMA203CD8 T cells when normalized to infused dose

Higher activation levels in IMA203CD8 T cells at week 1...

...without exhaustion over time

Trend towards responses at lower cell dose and higher tumor burden with IMA203CD8



Initial translational data indicates higher biological and clinical activity of IMA203CD8 (GEN2)

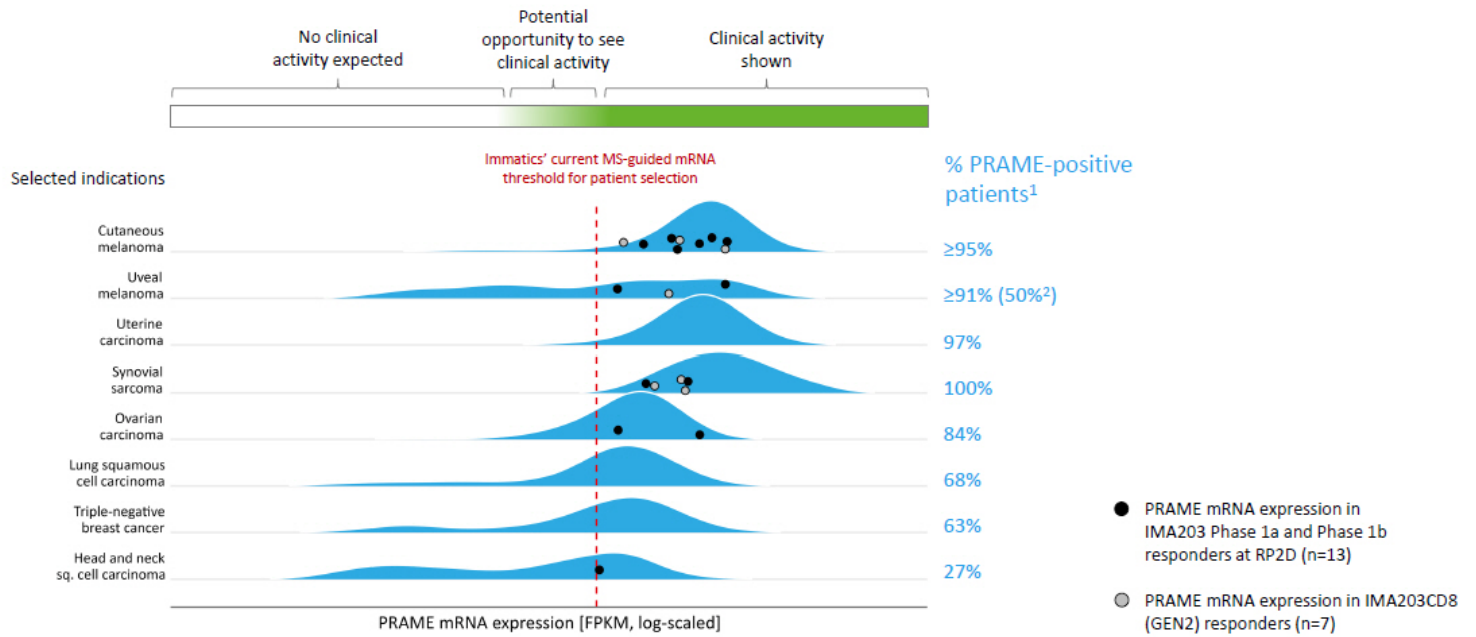
- Enhanced primary and secondary pharmacology when compared to IMA203
- Manageable tolerability (2 DLTs at DL4b, dose escalation ongoing)
- Initial clinical activity observed with differentiated response pattern
  - 56% (5/9) cORR
  - 6 out of 7 responses ongoing at data cut-off, durable response at 12+ months
  - SD converting to PR over time (N=2)
  - Enhanced biological efficacy with PRs at lower T cell:tumor cell ratio compared to IMA203

### Next Step

Clinical footprint expansion outside of melanoma in addition to treating melanoma patients

# Potential of IMA203 in Additional Solid Cancer Indications

## Based on PRAME Expression in IMA203 and IMA203CD8 (GEN2) Responders



IMA203

PRAME target expression distribution (blue histogram) based on TCGA RNAseq data, patient data (black dots) based on IMADetect® qPCR testing of screening biopsies; <sup>1</sup> PRAME target prevalence is based on TCGA RNAseq data combined with a proprietary MS-guided RNA expression threshold; <sup>2</sup> PRAME target prevalence in uveal melanoma based on IMADetect® qPCR testing of screening biopsies from clinical trial patients (n=33) demonstrates substantial higher prevalence of 91% compared to prevalence based on TCGA data of 50%. TCGA: 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. 2018 Clinical Cancer Research. MS mass spectrometry.

Data cut-off Sep 30, 2023 27

## Development Strategy

### Step 1

IMA203 in cutaneous melanoma (potentially bundled with uveal melanoma) as first tumor type targeted to enter registration-enabling trial

### Step 2

Further dose escalation in melanoma followed by signal finding in ovarian cancer and uterine cancer in dedicated dose expansion cohorts with IMA203CD8 (GEN2)

### Step 3

Pursue tumor-agnostic label in PRAME+ solid cancers to leverage full breadth of PRAME - including NSCLC, triple-negative breast cancer and others

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

~39,000 Patients per Year in the US only

## Selected Indications

	<u>Incidence</u>	<u>R/R Incidence</u>	<u>PRAME Positive</u>
Cut. Melanoma	99,800	7,700	95%
Uveal Melanoma	1,500	800	91%
Ovarian Carcinoma	19,900	12,800	84%
Uterine Carcinoma	62,700	10,700	97%
Uterine Carcinosarcoma	3,300	1,900	100%
Squamous NSCLC	57,000	34,600	68%
Small Cell Lung Cancer	31,900	19,400	45%
Adeno NSCLC	91,200	55,300	25%
HNSCC	66,500	15,100	27%
Breast Carcinoma	290,600	43,800	26% TNBC: 63%
Synovial Sarcoma	1,000	400	100%
Cholangiocarcinoma	8,000	7,000	33%

## Patient Population

Based on R/R Incidence;  
PRAME and HLA-A\*02:01+

2,999  
298  
4,408  
4,255  
779  
9,646  
3,579  
5,668  
1,672  
4,669  
164  
947

**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, other liver cancers, other sarcoma subtypes through indication-specific or indication-agonistic label expansion
- Move into earlier lines of therapy (R/R Incidence → Incidence)
- Inclusion of patients with lower PRAME-threshold

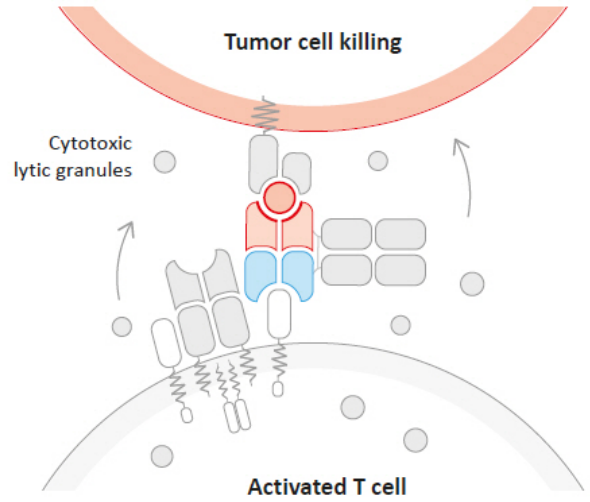
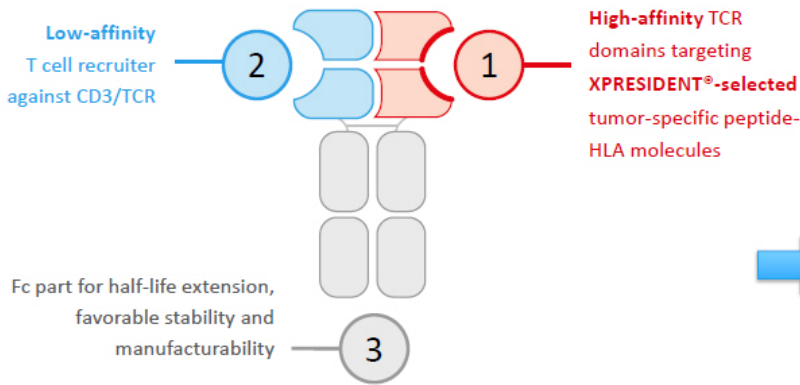


## TCER<sup>®</sup> – TCR Bispecifics

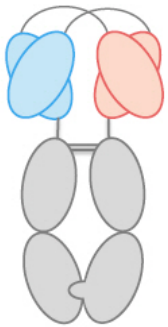


# TCER® – Immatics' Next-generation, Half-Life Extended Bispecifics

Proprietary TCER® Format Consisting of Three Distinct Elements



Next-gen, half-life extended TCER® format designed to  
→ safely apply high drug doses for activity in a broad range of tumors  
→ achieve optimized scheduling



1

### pHLA targeting TCR

- ✓ **High-affinity** (single digit nM) TCR targeting **XPRESIDENT®-selected** tumor-specific peptide-HLA molecules
- ✓ Broad therapeutic window through **XPRESIDENT®-guided** affinity maturation (>1000x)<sup>1</sup>
- ✓ **Complete tumor eradication** in mouse xenograft models at low doses

2

### T cell recruiting antibody

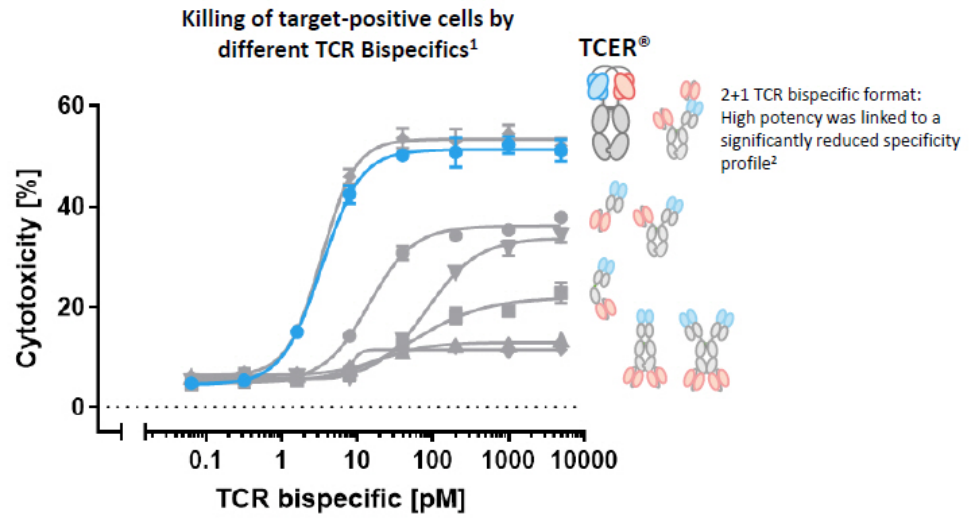
- ✓ **Low-affinity** (triple digit nM) T cell recruiter against both **TCR & CD3**
- ✓ **Optimized biodistribution** aiming for enrichment at tumor site and **prevention of CRS**<sup>2</sup>
- ✓ **Superior anti-tumor activity** in mouse models as compared to widely used CD3 recruiters

3

### Next-generation TCER® format

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

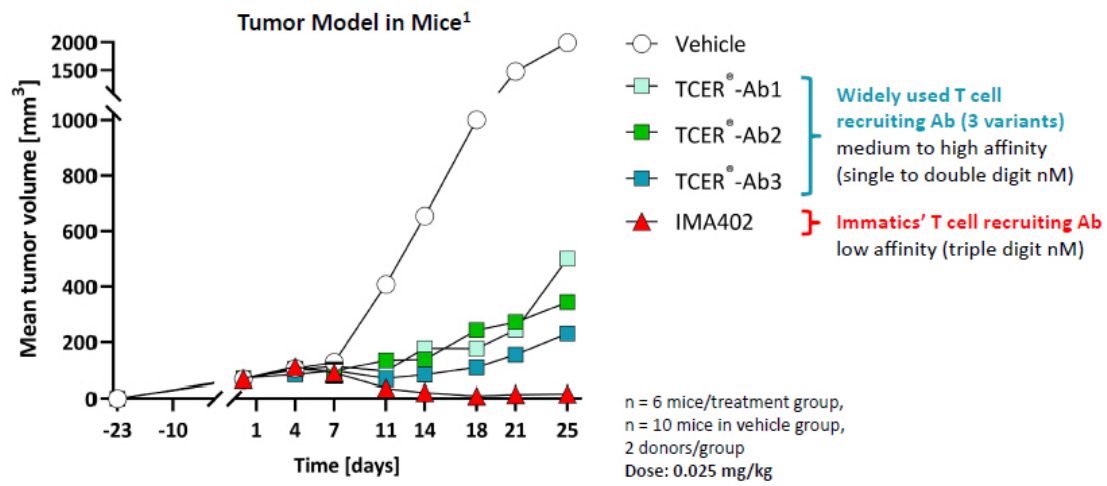
Our TCER® format is designed to maximize efficacy while minimizing toxicities in patients



- Seven different TCR Bispecific formats were evaluated with a pHLA targeting TCR and the identical T cell recruiting antibody
  - TCER<sup>®</sup> format had higher combination of potency and specificity<sup>2</sup> than six alternative TCR Bispecific format designs evaluated
- Flexible Plug-and-play platform: TCER<sup>®</sup> format successfully validated for different TCRs & different T cell recruiting antibodies**

# TCER<sup>®</sup> Format Is Designed for Optimized Efficacy and Safety

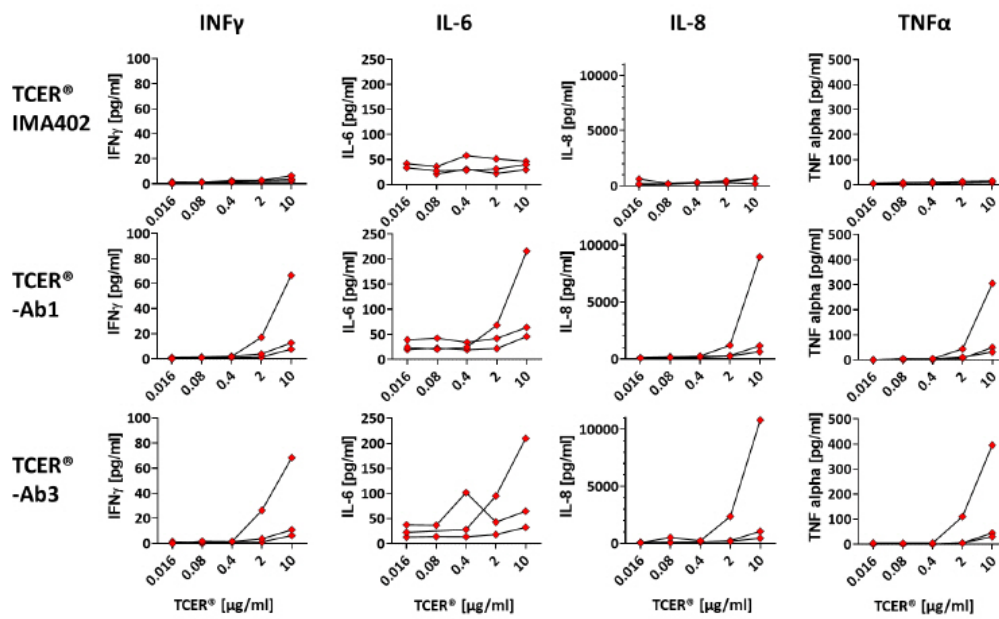
## Superior Tumor Control Using a Novel, Low-Affinity Recruiter



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

# TCER<sup>®</sup> Format Is Designed for Optimized Efficacy and Safety

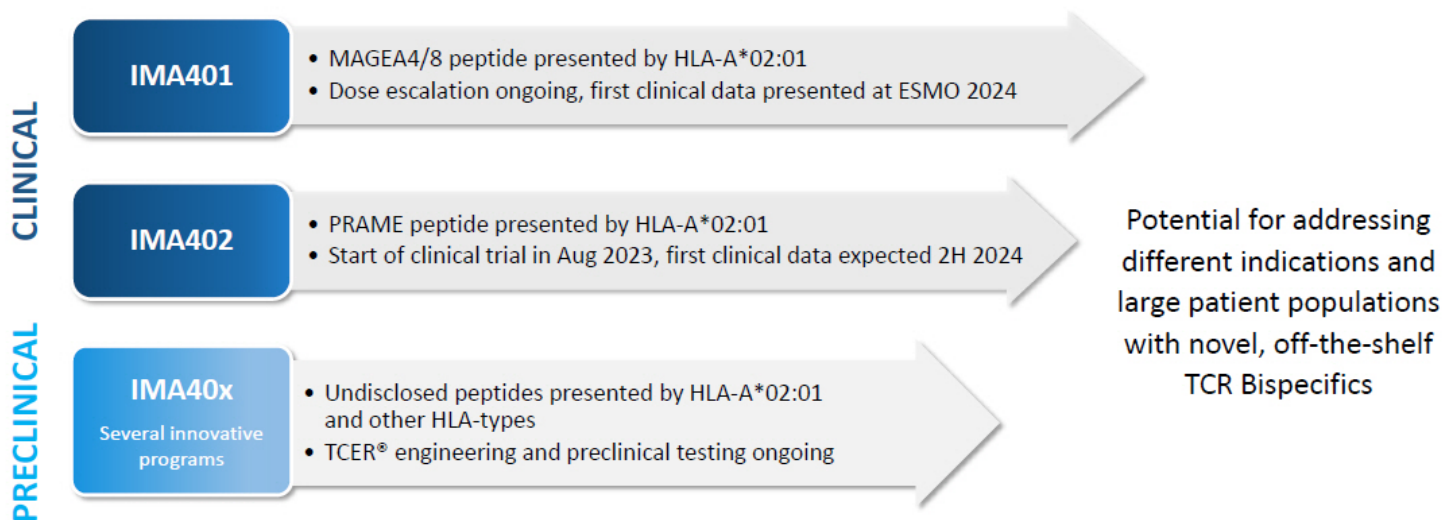
Reduced Target-Unrelated Recruiter-Mediated Cytokine Release using a Low-Affinity Recruiter



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

## Our TCER® Portfolio

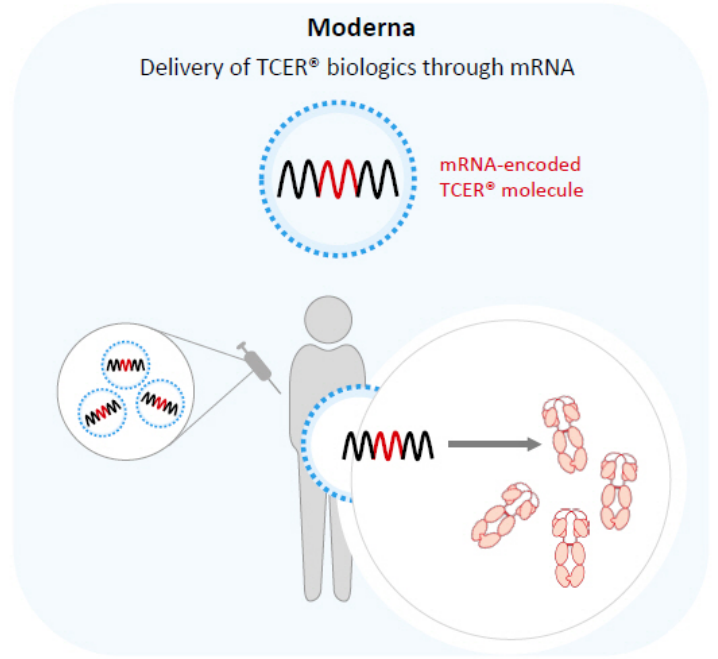
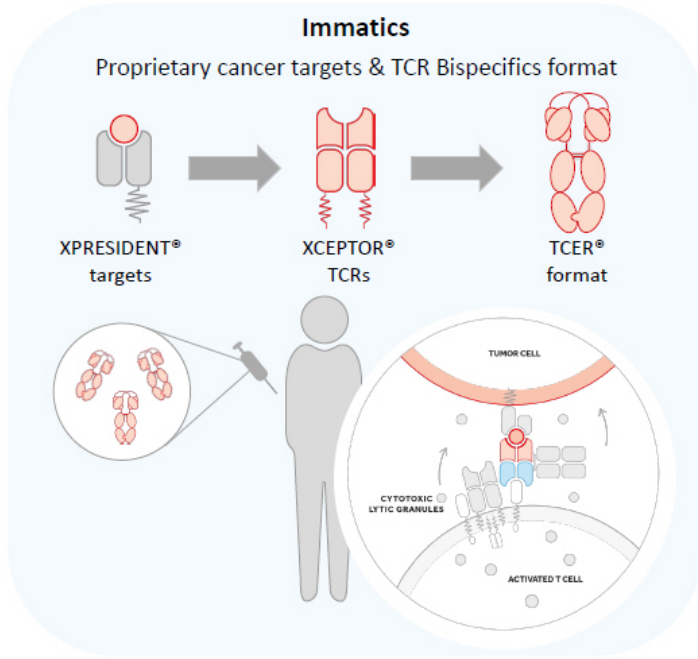
### Broad Pipeline of Next-Gen Half-Life Extended TCR Bispecifics



The current collaboration with Moderna includes the development of mRNA-enabled *in vivo* expressed TCER® molecules

# In Vivo Expressed TCER<sup>®</sup> Molecules Targeting Cancer-specific pHLA Targets

## Combining Immatics' Target and TCR Platforms with Moderna's mRNA Technology





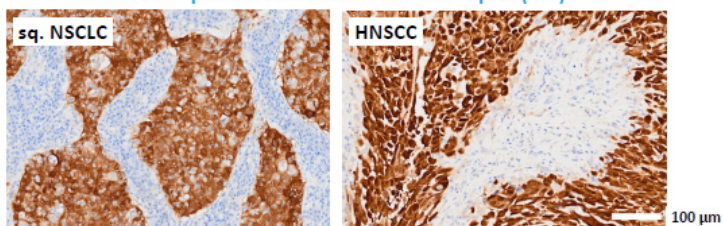
## TCER<sup>®</sup> IMA401 Targeting MAGEA4/8



# TCER® IMA401 Targeting MAGEA4/8

## Higher Target Density of MAGEA4/8 Peptide

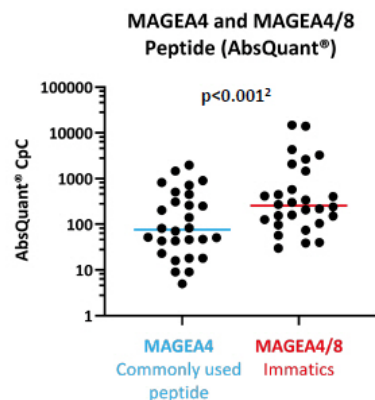
MAGEA4 protein detection in tumor samples (IHC)



MAGEA4/8 target prevalence in selected cancer indications

Indications	Target prevalence <sup>1</sup> [%]	Number of addressable patients*
Squamous non-small cell lung carcinoma	52%	22k
Head and neck squamous cell carcinoma	36%	7k
Bladder carcinoma	29%	9k
Ovarian carcinoma	23%	4k
Esophageal carcinoma	23%	3k
Small cell lung cancer	21%	4k
Triple-negative breast cancer	20%	2k
Gastric adenocarcinoma	14%	3k
Cutaneous melanoma	18%	2k
Non-small cell lung adenocarcinoma	9%	6k

\*1L+ Unresectable or Metastatic Addressable Patient Populations (US, UK, EU4 in 2025), total MAGE A4/A8+ and HLA-A\*02+



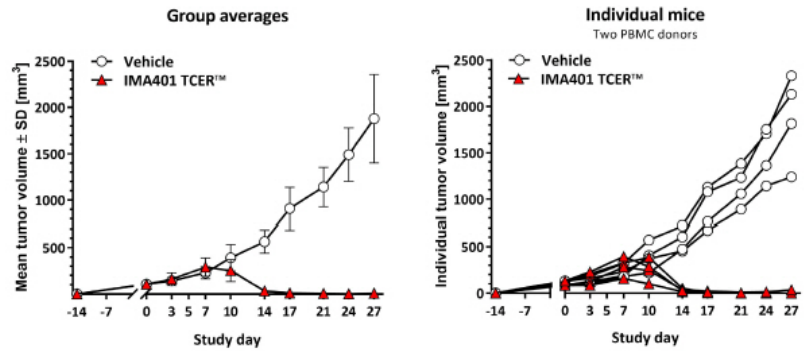
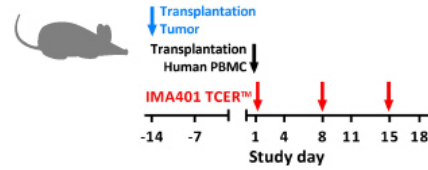
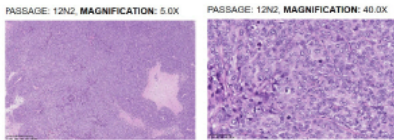
MAGEA4/8 target is presented at >5-fold higher target density<sup>3</sup> than a commonly used MAGEA4 target peptide

# TCER® IMA401 (MAGEA4/8) – Assessment of Anti-Tumor Activity *in vitro*

## Patient-Derived Tumor Model

### NSCLC adenocarcinoma:

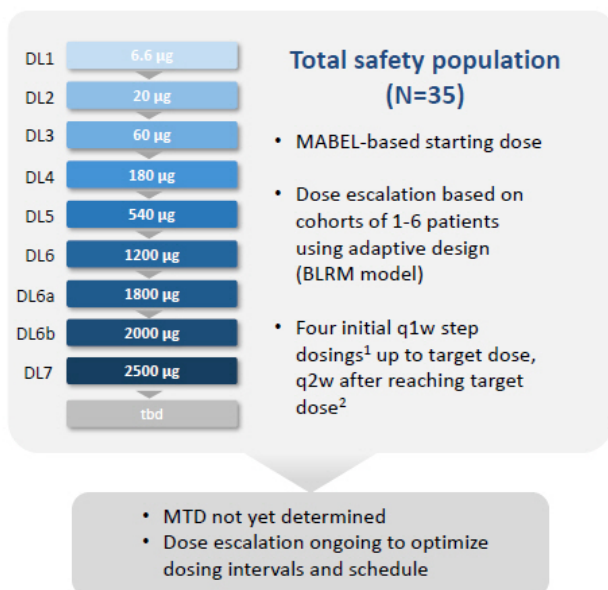
- Male, Caucasian, age 58, no therapy prior to surgery
- Site of origin: lung, differentiation poor
- Date of surgery: 1987, Freiburg Medical Center
- Volume doubling time: 7.3 day
- Histology:
  - Stroma content, 4%
  - Vascularization, high
  - Grading, undifferentiated



- TCER® IMA401 shows **high anti-tumor activity in Patient-derived xenograft model** of non-small cell lung adenocarcinoma
- **Remission observed in all mice (3 out of 4 mice with complete remission)**

# Trial Design – IMA401-101 Phase 1a Dose Escalation

## First-in-Human Basket Trial Targeting the MAGEA4/8 Peptide in Solid Tumors



### Objectives

**Primary:**

- Determine MTD and/or RP2D

**Secondary:**

- Tolerability
- Pharmacokinetics
- Initial anti-tumor activity

### Key Eligibility Criteria

- Recurrent and/or refractory **solid tumors**
- HLA-A\*02:01 positive
- MAGEA4/8-positive as confirmed by mRNA-based assay<sup>3</sup>
- ECOG status 0-2
- Received or not eligible for all available indicated standard of care treatments

## Baseline Characteristics

### Heavily Pre-treated Patients with a Broad Range of Tumor Types

Characteristic	Safety Population N=35	Efficacy-evaluable Population <sup>1</sup> N=29	Patients with relevant IMA401 doses and MAGEA4/8 <sup>high</sup> levels <sup>2</sup> N=17
<b>Age</b>			
Median (min, max)	62 (19, 82)	63 (35, 82)	64 (35, 82)
<b>ECOG performance status</b>			
0 - n [%]	10 [28.6]	6 [20.7]	3 [17.6]
1 - n [%]	23 [65.7]	21 [72.4]	12 [70.6]
2 - n [%]	2 [5.7]	2 [6.9]	2 [11.8]
<b>Prior lines of systemic treatment</b>			
Median (min, max)	4 (2, 8)	3 (2, 8)	4 (2, 8)
<b>LDH at baseline</b>			
≤ 1xULN [%]	51.4	55.2	41.2
1-2xULN [%]	40.0	41.4	58.8
> 2xULN [%]	8.6	3.4	0.0
<b>Baseline tumor burden</b>			
Median target lesion sum of diameter [mm] (min, max)	74 (15, 202.8)	80 (15, 202.8)	84 (18, 202.8)
<b>Number of organs with metastases</b>			
Median (min, max)	3 (1, 6)	3 (1, 6)	3 (1, 6)
<b>Liver/ Brain Lesions</b> [% of patients]	40.0	41.4	47.1

IMA401

<sup>1</sup>Efficacy Analysis Set (EAS) prospectively defined in the study protocol: patients who received at least four IMA401 infusions and had at least one post-baseline efficacy assessment or clinical progression. Three patients did not receive all four infusions due to clinical progression and three patients awaiting their first scans as of the data cut-off date are not included in the EAS; <sup>2</sup>Patients in this analysis had received IMA401 infusions at ≥1 mg and showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold. LDH: Lactate dehydrogenase; ULN: Upper limit of normal.

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# IMA401 Demonstrates Manageable Tolerability in N=35 Patients

## Most Frequent Related AEs were Lymphopenia, CRS and Neutropenia

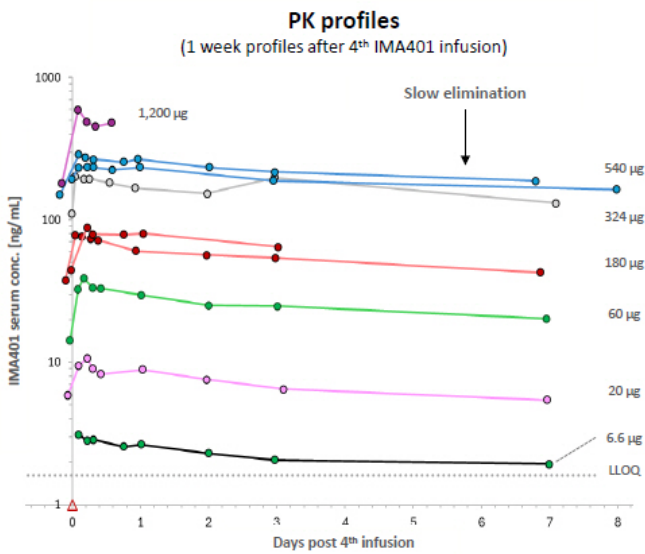
Treatment-related AEs <sup>1</sup> , n [%]	All Grades	≥ Grade 3
Lymphopenia	12 [34]	11 [31]
Cytokine release syndrome	11 [31]	0
Neutropenia	8 [23]	5 [14]
Facial pain	6 [17]	2 [6]
Anaemia	5 [14]	4 [11]
Thrombocytopenia	5 [14]	2 [6]
Headache	5 [14]	1 [3]
Hypertension	4 [11]	2 [6]
Leukopenia	4 [11]	2 [6]
Fatigue	4 [11]	0
Nausea	3 [9]	0
Hypoxia	2 [6]	1 [3]
Aspartate aminotransferase increased	1 [3]	1[3]
Febrile neutropenia	1 [3]	1[3]
Pneumonia	1 [3]	1[3]
Sinus tachycardia	1 [3]	1[3]

TEAEs, n [%]	All Grades	≥ Grade 3
Any	32 [91]	26 [74]
Treatment-related	28 [80]	19 [54]

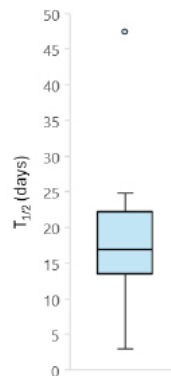
- Overall **manageable tolerability** profile
- **Most frequent/relevant related AEs** were
  - transient lymphopenia,
  - mild to moderate CRS (23% Grade 1, 9% Grade 2, **no Grade ≥ 3**), majority at first dose
  - neutropenia<sup>2</sup> occurred mostly at initial target dose and fully resolved in all cases except one (see below)
  - one possibly related death (pneumonia in the context of lung tumor progression and concurrent neutropenia) as previously reported<sup>3</sup>
- **MTD not reached** based on the BLRM

# IMA401 Pharmacokinetics

## TCER® Format Shows Extended Half-Life in Solid Cancer Patients



**Median half-life:**  
16.9 days (N=16)<sup>1</sup>



**Observed  $T_{1/2} > 2$  weeks**

- Confirms “antibody-like” half-life predicted by preclinical *in-vivo* data<sup>2</sup>
- Supports exploring increased dosing intervals of up to q4w and pursuing alignment with typically applied CPI dosing regimens

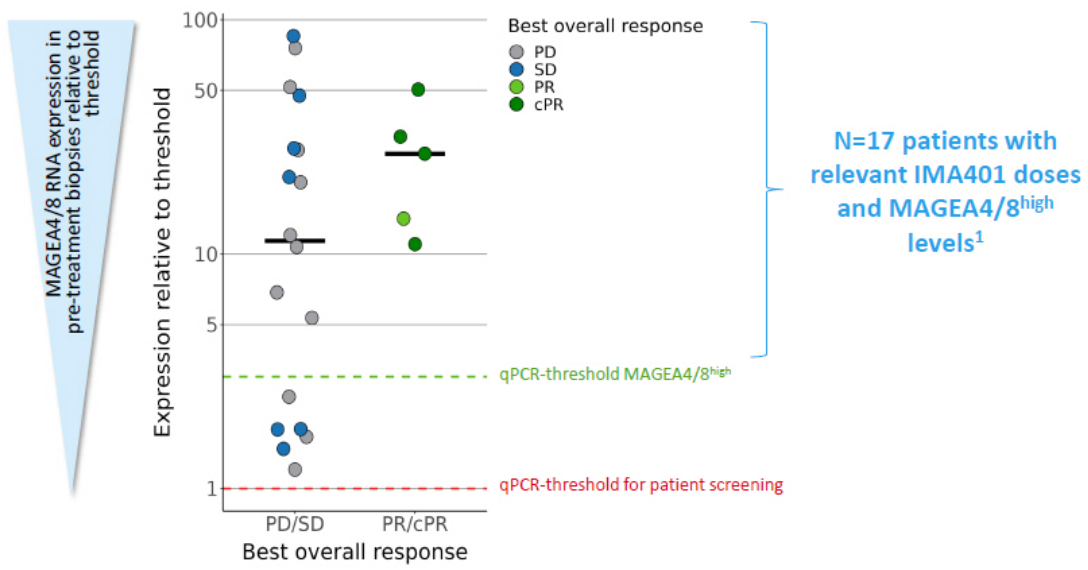
IMA401

<sup>1</sup>Half-lives derived from 2nd PK profiles close to steady-state. Calculated by non-compartmental analysis (NCA) using Phoenix WinNonlin (Certara); Interquartile range (25%-75% percentile): 13.5-22.2 days; <sup>2</sup>Data presented at European Antibody Congress 2020; Zinn et al., *Nature Cancer*, 2023: <https://doi.org/10.1038/s43018-023-00516-z>; LLOQ: lower limit of quantification; q4w: once every four weeks. CPI: Checkpoint inhibitor

Data cut-off Jul 23, 2024

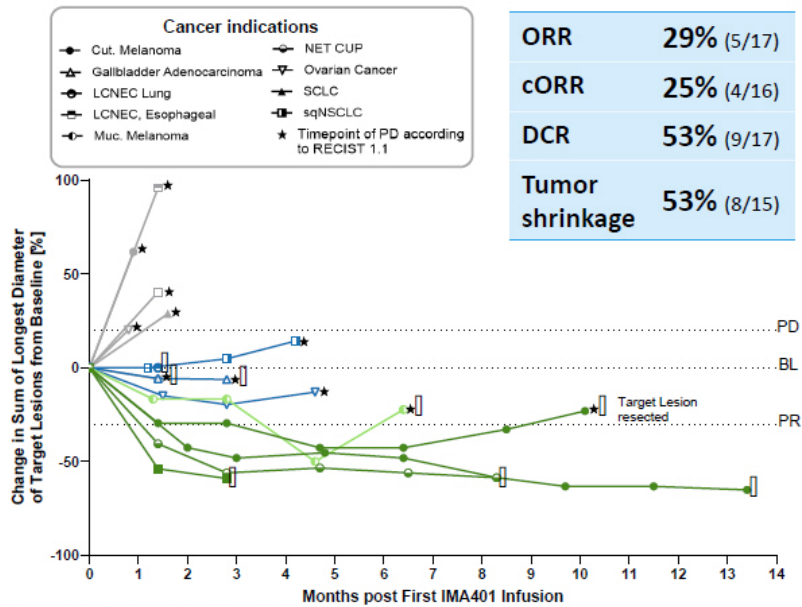
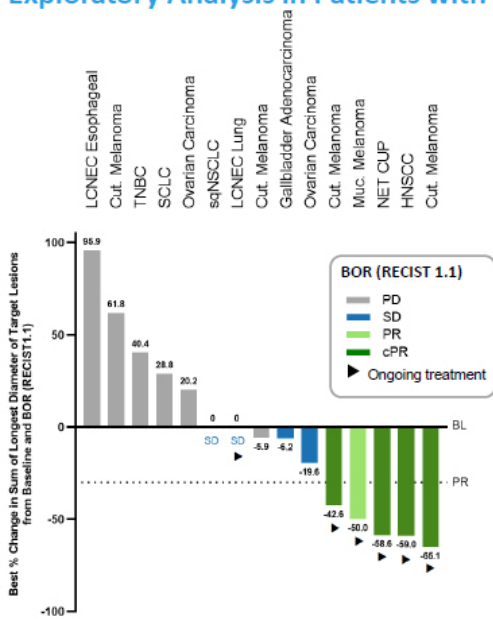
# Objective Responses are Associated with Target Expression

Exploratory Analysis in Patients with MAGEA4/8<sup>high</sup> Expression at Relevant IMA401 Doses (DL6-7; N=17)



# IMA401 Demonstrates Initial Anti-Tumor Activity in Multiple Tumor Types

## Exploratory Analysis in Patients with MAGEA4/8<sup>high</sup> Expression at Relevant IMA401 Doses (DL6-7; N=17\*)



Cancer Indications: Cut.: Cutaneous; HNSCC: Head & Neck Squamous Cell Carcinoma; LCNEC: Large Cell Neuroendocrine Carcinoma; Muc.: Mucosal; NET CUP: Neuroendocrine Tumor, Cancer of Unknown Primary; SCLC: Small Cell Lung Cancer; sqNSCLC: Squamous Non-small Cell Lung Cancer; TNBC: Triple Negative Breast Cancer.

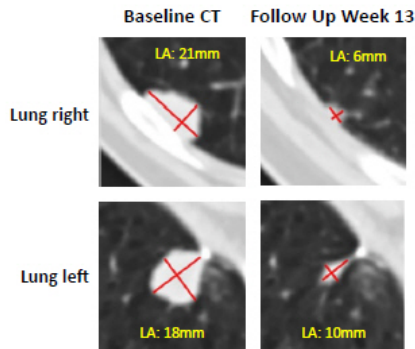
IMA401

\*Patients in this analysis are part of the efficacy analysis set with at least one post-treatment tumor assessment and had received IMA401 infusions at ≥1 mg and showed MAGEA4/8 target expression higher than the MAGEA4/8 qPCR threshold (n=17). Confirmed ORR (cORR): Confirmed objective response rate according to RECIST 1.1 for patients with at least two available post infusion scans or patients with progressive disease (PD) at any prior timepoint; two patients not included in tumor shrinkage calculation or shown in the figures as they had clinical progression and post-treatment tumor assessment is not available; PR: Partial Response; cPR: Confirmed Partial Response; SD: Stable Disease.

Data cut-off  
Jul 23, 2024



## 63-year-old male, HNSCC, MAGEA4/8<sup>high</sup>



### Patient Characteristics

HNSCC, Hypopharynx

Lesions in lung

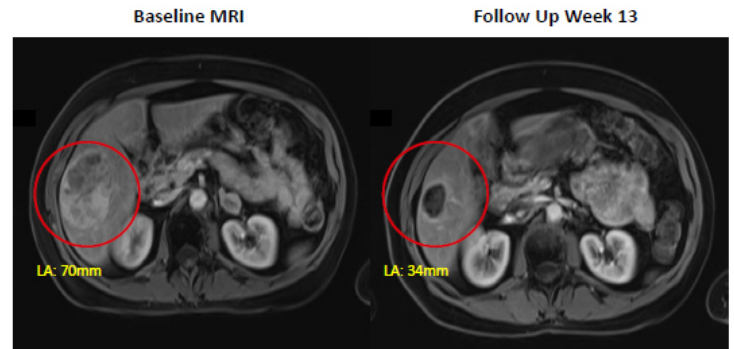
3 prior lines of therapy: Platinum chemotherapy, anti-PD-1/chemotherapy, anti-EGFR/chemotherapy

### Outcomes

cPR -59% reduction

cPR ongoing at week 12 post-treatment start

## 60-year-old female, NET CUP, MAGEA4/8<sup>high</sup>



### Patient Characteristics

NET CUP

Lesions in liver, lung, bone, pancreas, adrenal gland, lymph nodes

4 prior lines of therapy: Two lines of radiopharmaceuticals, chemotherapy, mTOR inhibitor

### Outcomes

cPR -56% reduction (BOR: -58.6%)

cPR ongoing at week 36 post-treatment start

IMA401

CT and MRI scans courtesy of treating physicians (Dr. Manik Chatterjee, University Hospital Wuerzburg and Dr. Max-Felix Häring, Eberhard Karls University Tuebingen); HNSCC: Head and neck squamous cell carcinoma; NET CUP: Neuroendocrine tumor-cancer of unknown primary; LA: Long axis; cPR: confirmed Partial response; BOR: Best overall response

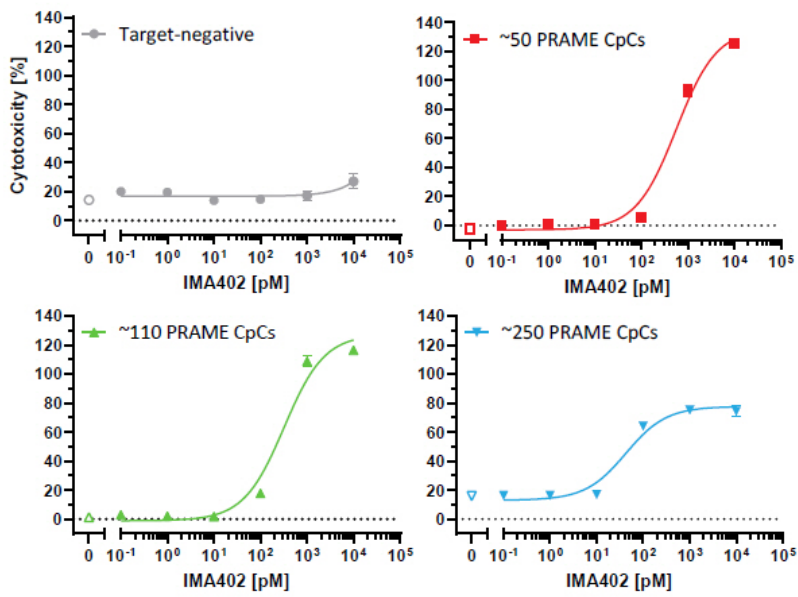
Data cut-off Jul 23, 2024 47



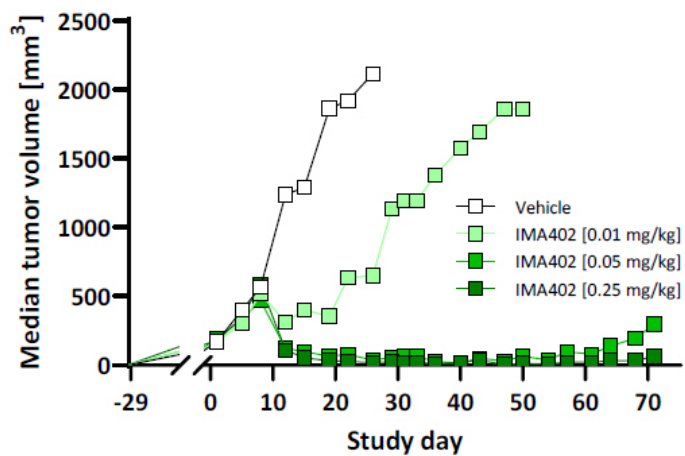
## TCER<sup>®</sup> IMA402 Targeting PRAME

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

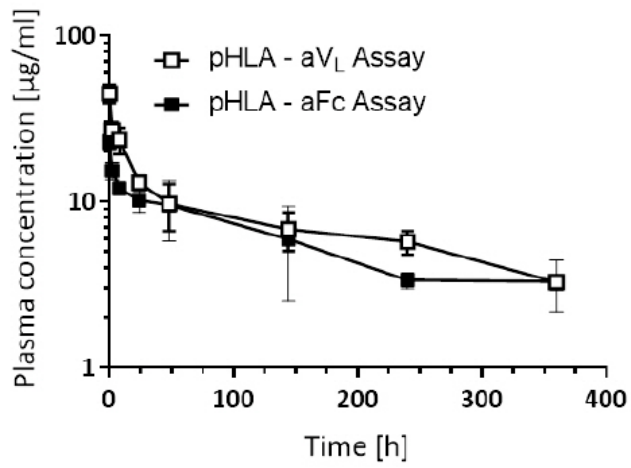
## Tumor Cell Killing at Low Physiological PRAME Peptide Levels



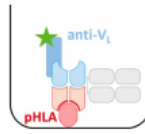
- TCER® IMA402 induces killing of tumor cells with PRAME target copies as low as 50 CpCs
- Physiological PRAME levels detected in majority of cancer tissues from patients are 100 – 1000 CpCs
- Preclinical activity profile enables targeting of a broad variety of tumor indications, such as lung cancer, breast cancer, ovarian cancer, uterine cancer, melanoma and others



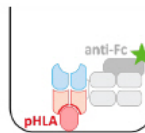
- Dose-dependent efficacy of IMA402 in cell line-derived *in vivo* mouse model
- Durable shrinkage of large tumors including complete responses over prolonged period
- Sufficiently high drug doses are key to achieving desired anti-tumor effect



pHLA - aV<sub>L</sub> Assay



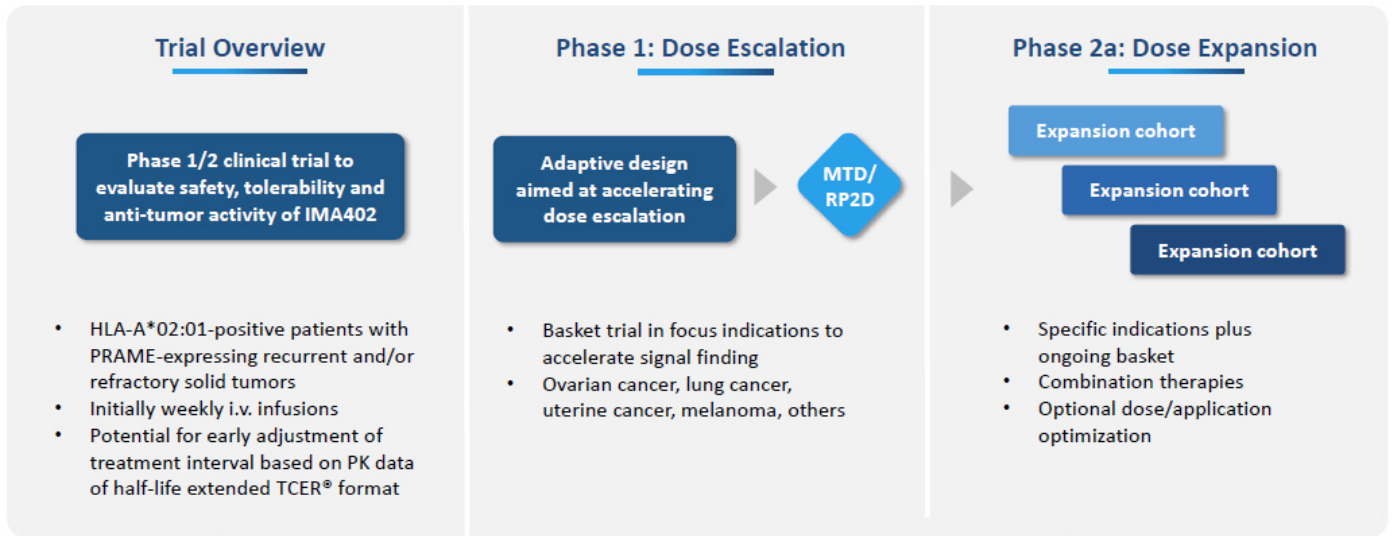
pHLA - aFc Assay



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

# Phase 1/2 Clinical Trial to Evaluate TCER® IMA402 Targeting PRAME

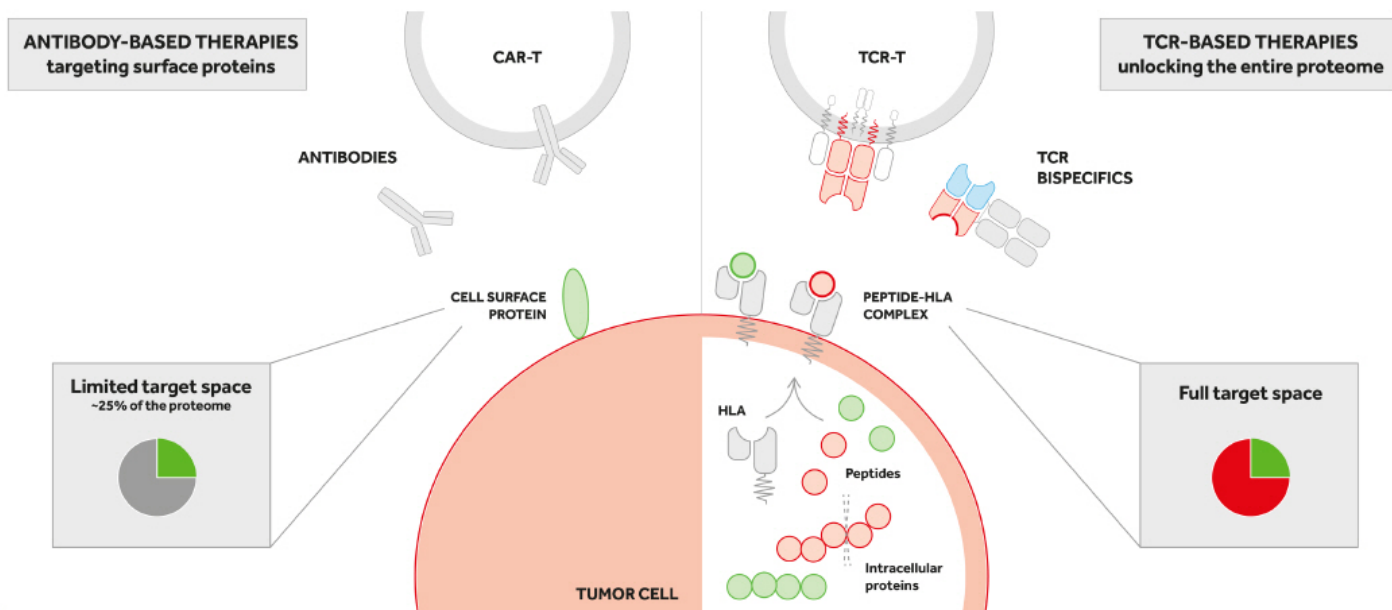
First Clinical Data Planned in 2H 2024





## Immatics' Proprietary Target and TCR Discovery Platforms

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





## 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

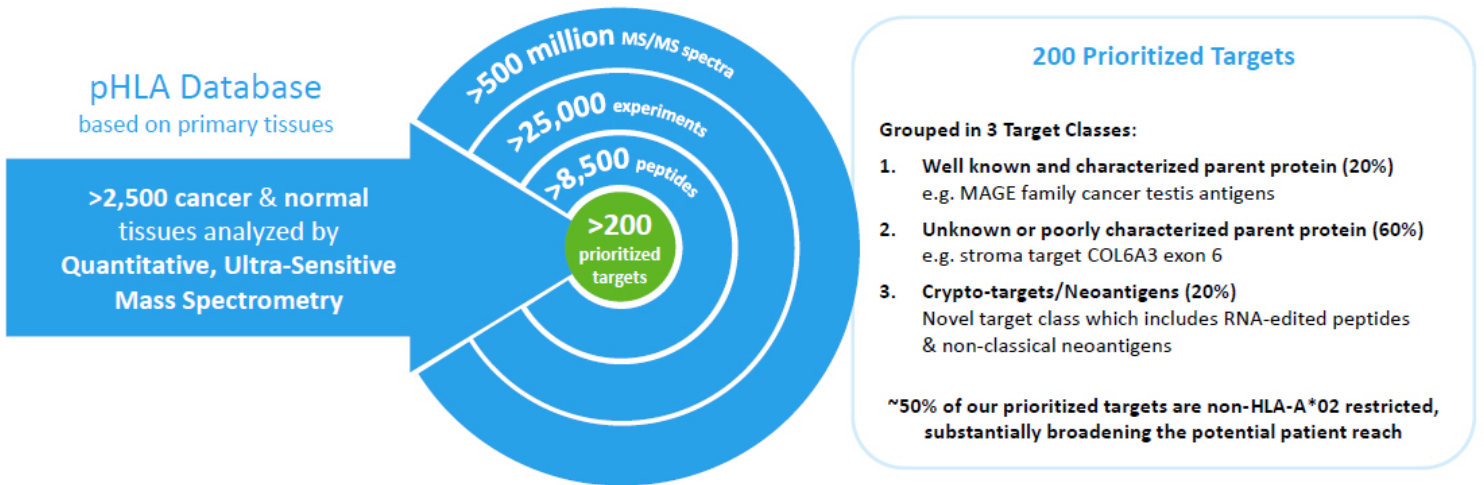
- are naturally presented on tumor tissues as identified by mass-spec
- are absent or presented at only low levels on normal tissues
- are presented at high copy numbers to trigger a pharmacological response

### 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

# Pool of 200 Prioritized Targets as Foundation for Future Value Generation

XPRESIDENT® Target Platform



This large data set is leveraged by our bioinformatics & AI-platform XCUBE™ – „AI is where the data is“

## IMA203 / IMA402 PRAME

Uterine Carcinoma – 97%  
 Uterine Carcinosarcoma – 100%  
 Sarcoma Subtypes – up to 100%  
 Cut. Melanoma ≥ 95%  
 Uveal Melanoma<sup>1</sup> ≥ 91%  
 Ovarian Carcinoma – 84%  
 Squamous NSCLC – 68%  
 TNBC – 63%  
 Small Cell Lung Cancer – 45%  
 Kidney Carcinoma – up to 40%  
 Cholangiocarcinoma – 33%  
 HNSCC – 27%  
 Esophageal Carcinoma – 27%  
 Breast Carcinoma – 26%  
 Adeno NSCLC – 25%  
 HCC – 18%  
 Bladder Carcinoma – 18%

## IMA401 MAGEA4/8

Squamous NSCLC – 52%  
 Sarcoma Subtypes – up to 60%  
 HNSCC – 36%  
 Bladder Carcinoma – 29%  
 Uterine Carcinosarcoma – 29%  
 Esophageal Carcinoma – 23%  
 Ovarian Carcinoma – 23%  
 Melanoma – 18%

## IMA204 COL6A3 Exon 6

Pancreatic Carcinoma – 76%  
 Breast Carcinoma – 77%  
 Stomach Carcinoma – 67%  
 Sarcoma – 63%  
 Colorectal Carcinoma – 60%  
 Esophageal Carcinoma – 60%  
 Squamous NSCLC – 55%  
 Adeno NSCLC – 57%  
 HNSCC – 56%  
 Uterine Carcinosarcoma – 50%  
 Mesothelioma – 44%  
 Cholangiocarcinoma – 36%  
 Melanoma – 35%  
 Bladder Carcinoma – 34%  
 Ovarian Carcinoma – 31%

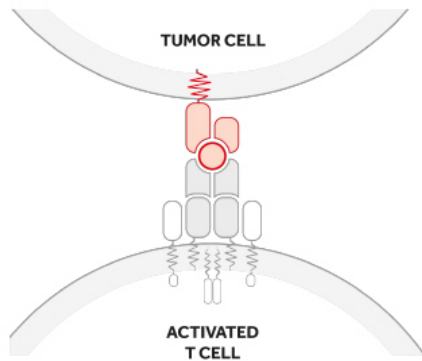
**ACTengine® and TCER® targets demonstrate high prevalence in multiple solid cancers**

### Technology

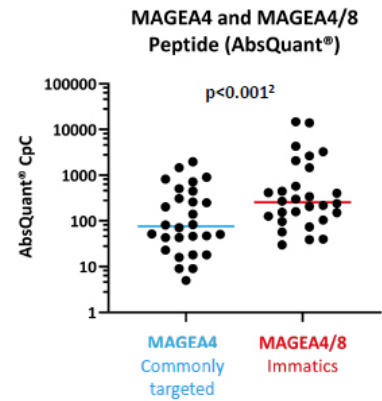
Target prevalence for selected solid cancer indications are based on TCGA (for SCLC: in-house) RNAseq data combined with a proprietary mass spec-guided RNA expression threshold;  
<sup>1</sup> Uveal melanoma target prevalence is based on IMADetect® qPCR testing of screening biopsies from clinical trial patients (n=33)

# Immatics' Unique Capability – Identification of the most Relevant Target

## Example of MAGEA4/8 Peptide Target



Ranking of pHLA targets

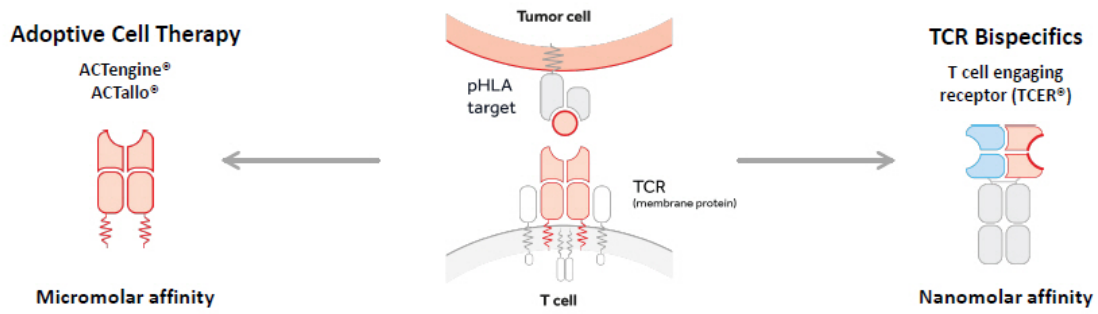


XPRESIDENT® quantitative information on target density<sup>1</sup> between peptides originating from the same source protein

MAGEA4/8 target is presented at >5-fold higher target density<sup>1</sup> than a commonly targeted MAGEA4 target peptide

# Development of the Right TCR – XCEPTOR® Technology

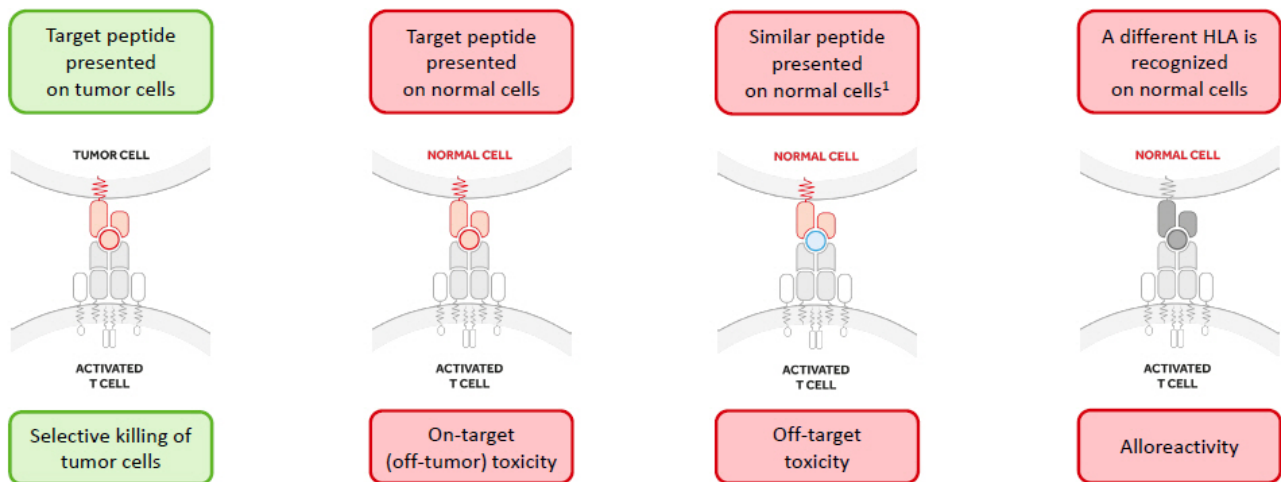
## TCR Discovery and Engineering for ACT and TCR Bispecifics



- 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 discovery<sup>1</sup> and TCR maturation<sup>2</sup> (empowered by our bioinformatics & AI-platform XCUBE™)

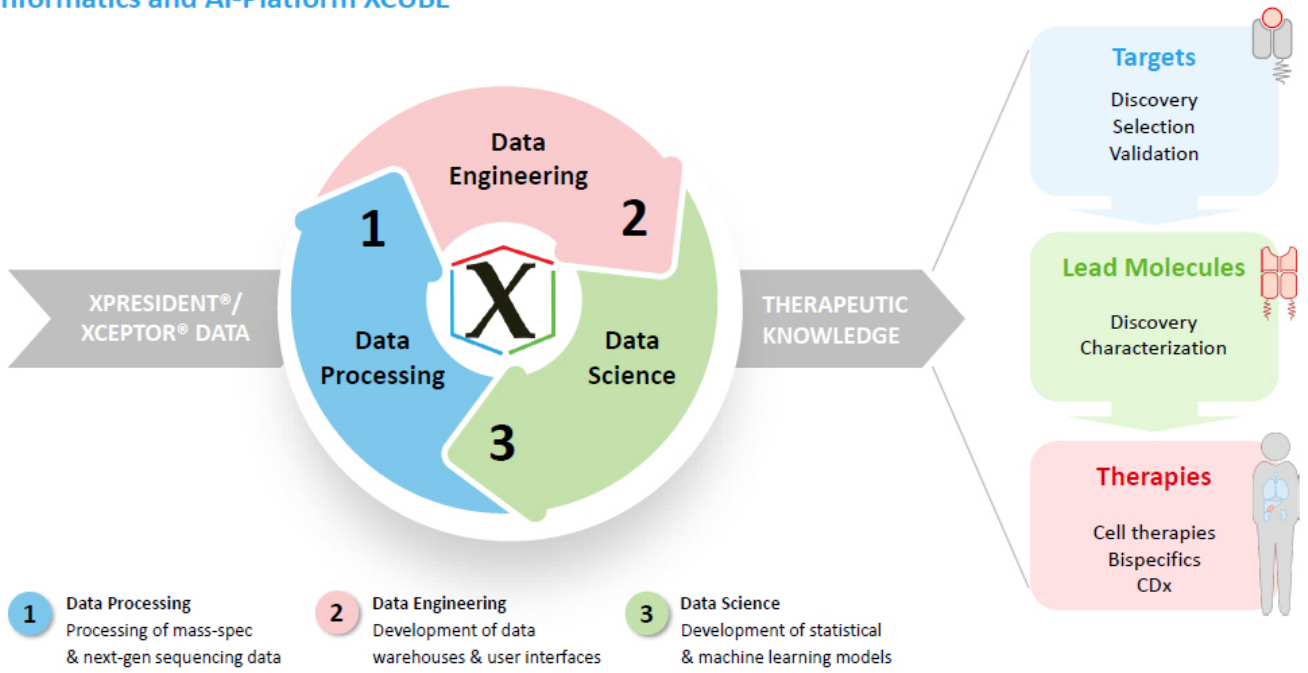
# Optimal Target Selection & TCR Specificity for Minimizing Safety Risks

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



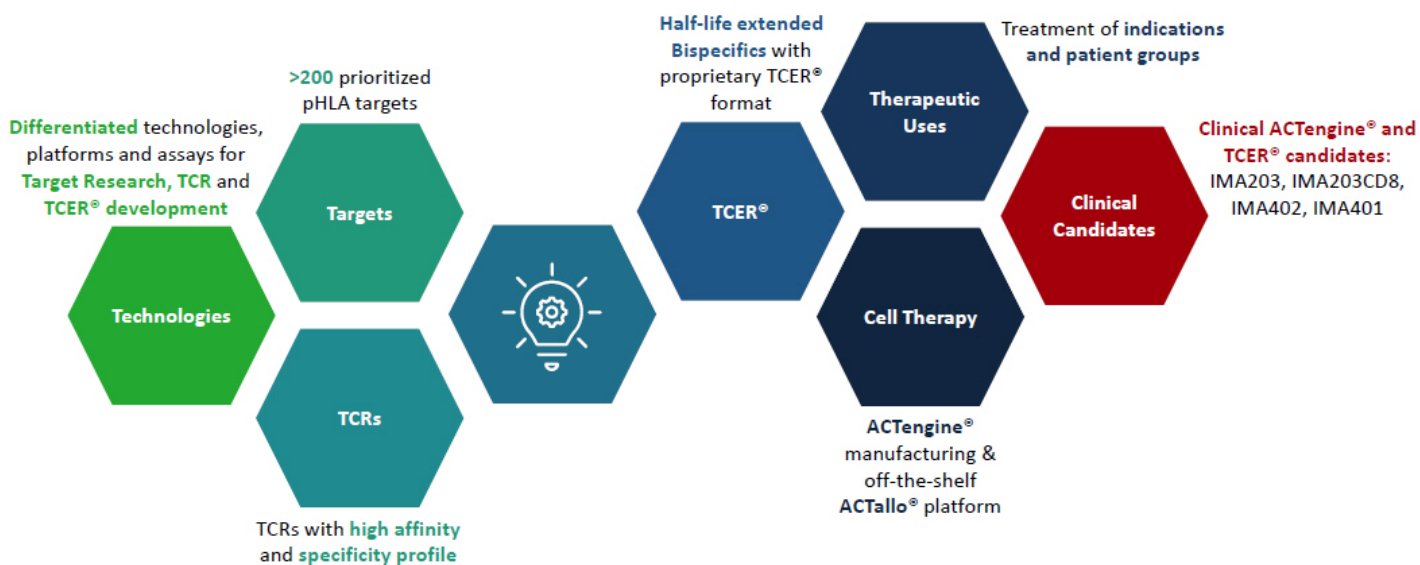
**XPRESIDENT<sup>®</sup>-guided screening** for on- and off-target toxicities of TCRs based on the extensive database of peptides presented on normal tissues

**“AI Is Where the Data Is®”**  
Bioinformatics and AI-Platform XCUBE™



# Immatics' Robust Intellectual Property Portfolio

## Protection Strategy of Key Assets in Major Markets and Beyond







## ACTengine® IMA204 – TCR-T Targeting COL6A3 Exon 6

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

## Key Features

### TARGET

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

Naturally and specifically presented on tumors at high target density<sup>1</sup>:  
**100-700 copies/cell**

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

### TCR

High-affinity, specific TCR targeting COL6A3 exon 6

**Affinity-maturated, CD8-independent TCR**

High functional avidity<sup>2</sup>:  
**~0.01ng/ml**

Identified and characterized by XCEPTOR® TCR discovery and engineering platform

### PRECLINICAL DATA

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

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

Complete tumor eradication in *in vivo* mouse models

### PATIENT POPULATION<sup>3</sup>

Pancreatic Carcinoma – 76%

Breast Carcinoma – 77%

Stomach Carcinoma – 67%

Sarcoma – 63%

Colorectal Carcinoma – 60%

Esophageal Carcinoma – 60%

Squamous NSCLC– 55%

Adeno NSCLC– 57%

HNSCC – 56%

Uterine Carcinosarcoma – 50%

Mesothelioma – 44%

Cholangiocarcinoma – 36%

Melanoma – 35%

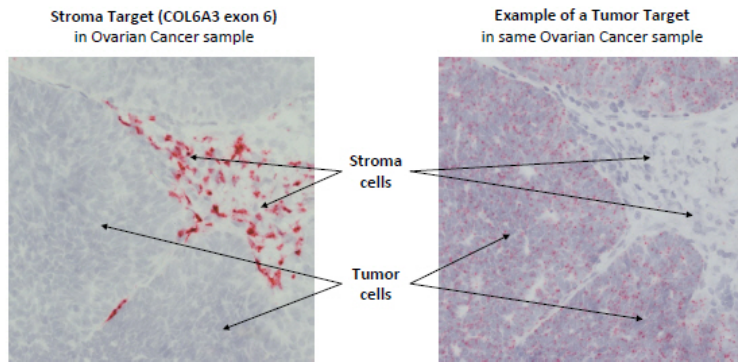
Bladder Carcinoma – 34%

Ovarian Carcinoma – 31%

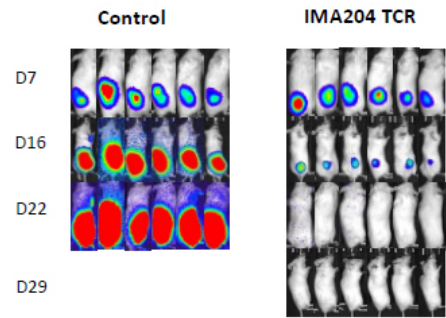
IMA204 provides a promising therapeutic opportunity for a broad patient population as monotherapy or in combination with TCR-T cells directed against tumor targets

# ACTEngine® IMA204 – High Affinity, CD8-independent TCR

Complete Tumor Eradication *in vitro* & *in vivo*<sup>1</sup> by Affinity-enhanced IMA204 TCR



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



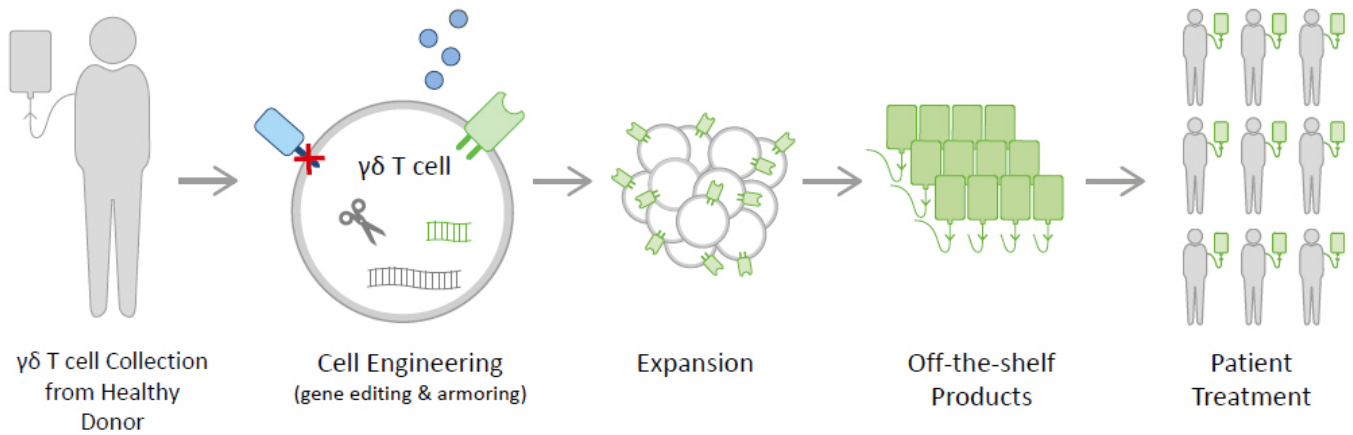
CD8-independent TCR leads to tumor eradication in all mice treated

**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



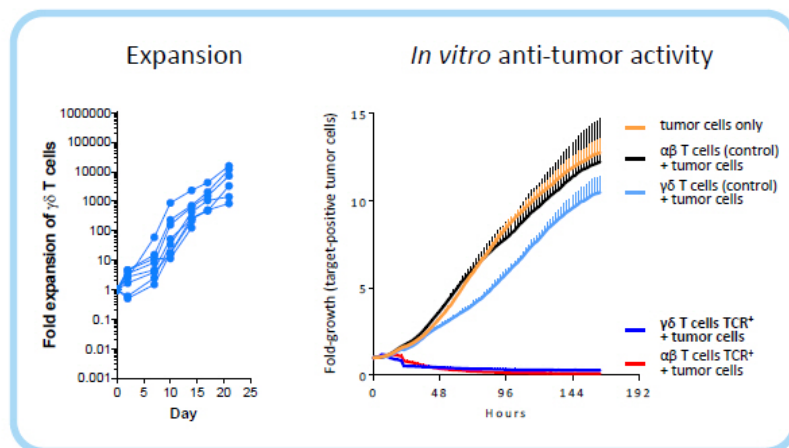
- **Off-the-shelf cell therapy**, no need for personalized manufacturing → reduced logistics and time to application
- **Potential for hundreds of doses** from one single donor leukapheresis → lower cost of goods
- **Use of healthy donor material** provides standardized quality and quantity of starting material
- Strategic collaborations combining Immatics' proprietary ACTallo® platform with Bristol Myers Squibb's next-gen technologies and Editas Medicine's CRISPR gene editing technology to develop next-gen allogeneic γδ TCR-T/CAR-T programs

## 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





## 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**  
>15 yrs pharma & biotech experience  
(GSK, BioNTech)



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



**Steffen Walter**  
**Chief Operating 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



# Delivering

## the Power of T cells to Cancer Patients



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