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

FORM 6-K

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

October 11, 2022

Commission File Number: 001-39363

IMMATICS N.V.

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

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

Form 20-F ☒ Form 40-F ☐

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

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

INFORMATION CONTAINED IN THIS REPORT ON FORM 6-K

On October 10, 2022, Immatics N.V. (the "Company", "Immatics", "we") announced a clinical data update for the ACTengine IMA203 TCR-T monotherapy targeting an HLA-A*02-presented peptide derived from the tumor antigen PRAME covering:

- The completed Phase 1a dose escalation part of the clinical trial, during which we treated 27 patients, including 7 patients at the provisional recommended Phase 2 dose ("RP2D") (being dose level 4). The Phase 1a patients were heavily pre-treated, had a particularly high baseline tumor burden and an average of 4.2 prior lines of treatment, and patients treated at the RP2D had an average of 4.6 prior lines of treatment.

- Initial data from the first 5 patients in the ongoing Phase 1b dose expansion cohort A (monotherapy). These Phase 1b patients were heavily pre-treated, had high to moderate baseline tumor burden and an average of 4.0 prior lines of treatment.

The cutoff date for clinical data update is September 6, 2022.

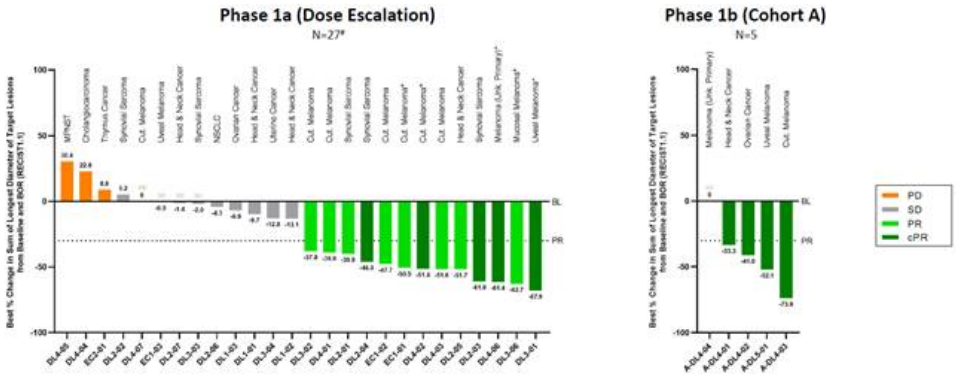
Moving from Phase 1a to Phase 1b, we are continuing to introduce planned improvements that may influence clinical outcomes including (1) applying higher cell doses (DL4 and exploratory DL5), (2) optimizing the cell product through manufacturing enhancements, and (3) working with disease area experts to gradually reduce the fraction of very heavily pre-treated patients with extreme tumor burden who have exhausted standard of care and have undergone multiple clinical trials. In addition, the focus in Phase 1b is also shifting from initial ORR determined at ~6-week scan to confirmed ORR determined at the ~12-week scan.

We observed a higher overall response rate ("ORR") and confirmed ORR ("cORR") in patients who received doses above 1 billion TCR-T cells, being dose levels 4 and 5. The table below sets forth the observed overall response rates, as measured by RECIST v1.1:

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

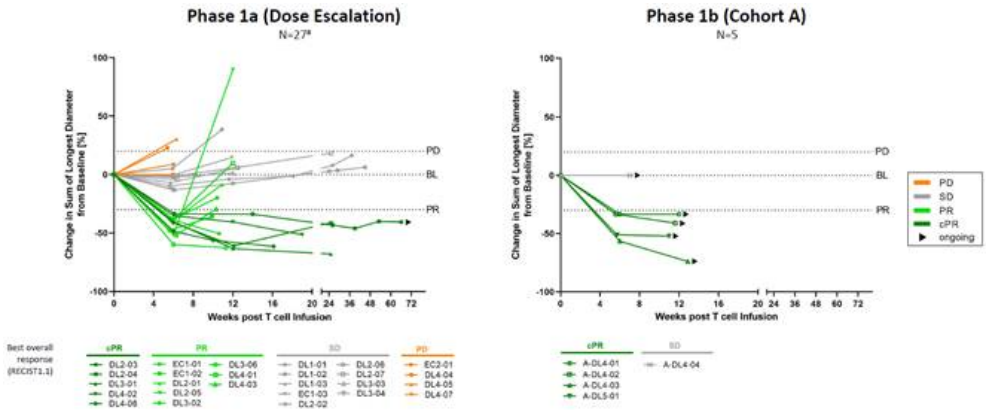
[1] All patients received >1 billion total TCR-T cells; [2] confirmed ORR (cORR), * 1 patient with SD at ~6-week scan with pending ~12-week scan considered as non-responder for cORR; DL – dose level.

We observed confirmed objective responses in patients with a broad spectrum of different tumor types, including cutaneous melanoma, ovarian cancer, head and neck cancer, uveal melanoma and synovial sarcoma. The graphs below show the best percentage change in target lesions:



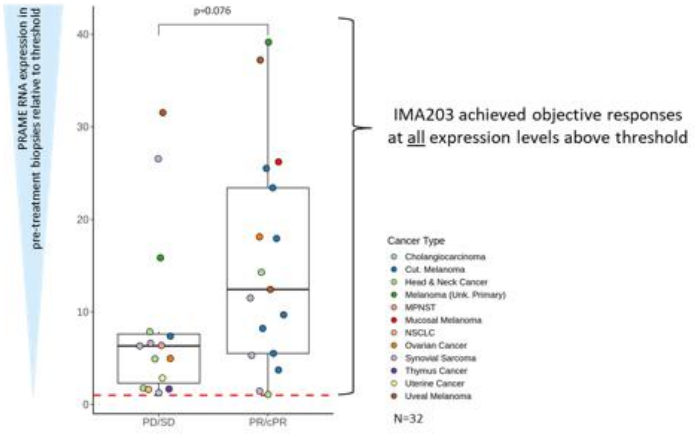
* Maximum change of target lesions and RECIST 1.1 BOR response at different time points; #Synovial sarcoma patient (DL3) PD at week 6 not shown as target lesions were not evaluable; PD: Progressive disease; SD: Stable disease; PR: Partial response; cPR: Confirmed partial response; BL: Baseline

In addition, we observed encouraging early signs of improved durability at higher doses and in Phase 1b patients. The graphs below show the change in sum of longest diameter of lesions over time:

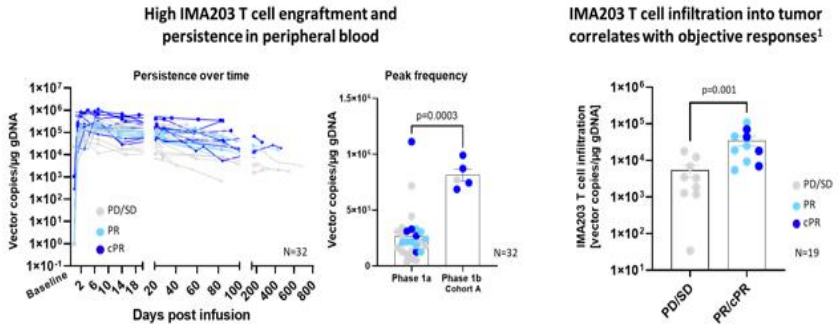


Synovial sarcoma patient (DL3) PD at week 6 not shown 12 as target lesions were not evaluable; PD: Progressive disease; SD: Stable disease; PR: Partial response; cPR: Confirmed partial response; BL: Baseline

Translational data obtained during the Phase 1a and Phase 1b cohort A trial further provide clinical validation of PRAME as a highly promising T cell target for solid cancers. Confirmed clinical responses were observed at high and low PRAME-expression levels above threshold, as shown in the following graph, indicating IMA203's potential to provide clinical benefit for all PRAME biomarker-positive cancer patients.



The predicted high PRAME prevalence across key indications has so far been supported by prevalence rates obtained during the clinical screening of patients. Biological data including T cell engraftment, persistence and tumor infiltration were consistent with clinical outcomes, as shown in the following graphs, and support the proposed mechanism of action for IMA203.



Mann-Whitney U test; [1] T cell infiltration for 19 patients (9 non-responder, 10 responder) with 6-week post infusion biopsy available (1 patient with ~5-week post infusion biopsy)

The most frequent treatment-emergent adverse events ("TEAEs") were as expected for cell therapies, and we believe that IMA203 demonstrated a favorable tolerability profile. Specifically, we observed that:

- All 32 infused patients experienced cytopenia (Grade 1-4) associated with lymphodepletion;
- 31 patients (97%) experienced cytokine release syndrome ("CRS") of any grade:
  - 29 patients had low to moderate CRS (Grade 1-2)
  - 2 patients had Grade 3 CRS that occurred in Phase 1a, with both patients having recovered to Grade ≤ 2 after three and four days, respectively;
- 5 patients (16%) experienced a low to moderate (Grade 1-2) immune effector cell associated neurotoxicity syndrome (ICANS);
- No dose-dependent increase of CRS and ICANS was observed;
- No additional dose limiting toxicities ("DLT") were observed since the initial data release in March 2021;
- No IMA203-related Grade 5 adverse events.

The tables below show the Grade ≥3 TEAEs observed regardless of relatedness to study treatment:

TEAEs by maximum severity (N=33)[1*]

Adverse event	≥ Grade 3 No.	≥ Grade 3 %
Patients with any adverse event	33	100.0
Adverse Events of Special Interest		
Cytokine release syndrome	2	6.1
ICANS[2]	0	0.0
Blood and lymphatic system disorders		
Neutropenia	27	81.8
Lymphopenia	22	66.7
Leukopenia	20	60.6
Anaemia	17	51.5
Thrombocytopenia	13	39.4
Cytopenia	1	3.0
Leukocytosis	1	3.0
Lymphocytosis	1	3.0
Infections and infestations		
Appendicitis	1	3.0
COVID-19	1	3.0
Enterococcal infection	1	3.0
Orchitis	1	3.0
Sepsis[4,5]	1	3.0
Septic shock[4]	1	3.0
Respiratory, thoracic and mediastinal disorders		
Hypoxia	2	6.1
Bronchial obstruction	1	3.0
Laryngeal inflammation	1	3.0
Pleural effusion	1	3.0
Respiratory failure	1	3.0
General disorders and administration site conditions		
Condition aggravated[4]	1	3.0
Fatigue	1	3.0
Pyrexia	1	3.0
Swelling face	1	3.0
Gastrointestinal disorders		
Abdominal pain	1	3.0
Diarrhoea	1	3.0
Vomiting	1	3.0

Adverse event	≥ Grade 3 No.	≥ Grade 3 %
table continued...		
Investigations		
Blood alkaline phosphatase increased	1	3.0
Blood creatinine increased	1	3.0
Blood fibrinogen decreased	1	3.0
Metabolism and nutrition disorders		
Hypokalaemia	2	6.1
Failure to thrive	1	3.0
Vascular disorders		
Hypertension	2	6.1
Hypotension	1	3.0
Injury, poisoning and procedural complications		
Fracture	1	3.0
Infusion related reaction	1	3.0
Renal and urinary disorders		
Acute kidney injury	1	3.0
Proteinuria	1	3.0
Cardiac disorders		
Atrial fibrillation[3]	1	3.0
Endocrine disorders		
Inappropriate antidiuretic hormone secretion	1	3.0
Eye disorders		
Ulcerative keratitis	1	3.0
Hepatobiliary disorders		
Cholangitis	1	3.0
Immune system disorders		
Contrast media allergy	1	3.0
Musculoskeletal and connective tissue disorders		
Muscle spasms	1	3.0
Reproductive system and breast disorders		
Vaginal haemorrhage	1	3.0
Skin and subcutaneous tissue disorders		
Rash maculo-papular	1	3.0

[1] 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 only Grade 1-2 occurred; 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 of 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 (06-Sep-2022); [2] ICANS: Immune effector cell-associated neurotoxicity syndrome; [3] DLT: Dose limiting toxicity in phase 1a at DL2 reported on March 17, 2021; [4] Fatal Adverse events in N=3 patients were not considered related to any study drug; [5] Patient did not receive IMA203 TCR-T cells; * 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, Diarrhoea, Cytokine release syndrome, Hypokalaemia, Proteinuria; Second patient: Fracture, Muscle spasms, Neutropenia, Thrombocytopenia.

IMA203 is currently being evaluated in an ongoing Phase 1b trial including three expansion cohorts: (A) IMA203 as a monotherapy, (B) IMA203 in combination with an immune checkpoint inhibitor and (C) IMA203CD8, a next-generation cell therapy where IMA203 engineered T cells are co-transduced with a CD8αβ co-receptor. We expect further data read-outs on the individual cohorts in the IMA203 trial throughout 2023.

In addition to the ACTengine IMA203 programs, we are addressing PRAME-positive cancers with a second therapeutic modality: TCR Bispecifics. Our TCER IMA402 is a next-generation, half-life extended TCR Bispecific which is expected enter the clinic in 2023. Both approaches, ACTengine and TCER, are distinct therapeutic modalities that have the potential to provide innovative treatment options for a variety of cancer patient populations with different medical needs.

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

INCORPORATION BY REFERENCE

This Report on Form 6-K (other than Exhibits 99.1 and 99.2) shall be deemed to be incorporated by reference into the registration statements on Form F-3 (Registration Nos. 333-258351 and 333-240260) of Immatics

N.V. and to be a part thereof from the date on which this report is filed, to the extent not superseded by documents or reports subsequently filed or furnished.

EXHIBIT INDEX

Exhibit No.	**Description**
99.1	Press release dated October 10, 2022
99.2	Presentation dated October 10, 2022

SIGNATURES

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

IMMATICS N.V.

Date: October 11, 2022

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

PRESS RELEASE

Immatics Reports Interim Clinical Data Update on ACTengine® IMA203 TCR-T Monotherapy Targeting PRAME

*Company to host **conference call** **today, October 10, at 8:30 am EDT / 2:30 pm CEST***

- Clinical validation of PRAME as multi-tumor target with large potential for TCR-based therapies: confirmed responses in different solid cancers, in patients with high and low PRAME expression
- Update covers data from 27 patients in completed Phase 1a dose escalation and first 5 patients in Phase 1b dose expansion (cohort A) treated with IMA203 monotherapy
- Confirmed objective response rate (cORR): 50% (6/12) at target dose or above with at least 1 billion infused TCR-T cells across Phase 1a and 1b; thereof 80% cORR (4/5) in Phase 1b patients alone with all responses ongoing at data cut-off
- Confirmed responses across different solid tumor types: cutaneous melanoma, ovarian cancer, head and neck cancer, uveal melanoma, and synovial sarcoma
- Treatment with IMA203 continues to show manageable tolerability; biological data including T cell engraftment, persistence and tumor infiltration consistent with clinical data
- IMA203 TCR-T is part of Immatics' strategy to leverage the full clinical potential of targeting PRAME; next data read-outs on IMA203 monotherapy, IMA203 in combination with a checkpoint inhibitor and 2nd generation IMA203CD8 planned during 2023

Houston, Texas and Tuebingen, Germany, October 10, 2022 – Immatics N.V. (NASDAQ: IMTX, "Immatics"), a clinical-stage biopharmaceutical company active in the discovery and development of T cell-redirecting cancer immunotherapies, today announced a clinical data update for the IMA203 monotherapy covering the completed Phase 1a dose escalation part of the trial and initial data from the first 5 patients in the ongoing Phase 1b dose expansion cohort A (monotherapy). In the Phase 1 trial with ACTengine® IMA203, Immatics is treating recurrent and/or refractory solid cancer patients utilizing TCR-T cells directed against an HLA-A*02-presented peptide derived from PRAME, which is frequently expressed across several solid cancer indications. Overall, IMA203 continues to be well tolerated and achieved confirmed

objective responses across multiple solid cancers such as cutaneous melanoma, ovarian cancer, head and neck cancer, uveal melanoma, and synovial sarcoma. Encouraging early signs of improved durability were seen with a 50% (6/12) confirmed objective response rate, when patients were infused at the target dose or above with more than 1 billion TCR-T cells.

Key clinical findings from IMA203 TCR-T monotherapy

The data obtained during the Phase 1a and Phase 1b cohort A trial provide clinical validation of PRAME as a highly promising T cell target for solid cancers. Confirmed clinical responses were observed at high and low PRAME-expression levels above threshold, indicating IMA203's potential to provide clinical benefit for all PRAME biomarker-positive cancer patients. The predicted high PRAME prevalence across key indications has so far been supported by prevalence rates obtained during the clinical screening of patients.

Moving from Phase 1a to Phase 1b, Immatics has continued to introduce planned improvements that may influence clinical outcomes including (1) applying higher cell doses (DL4 and exploratory DL5), (2) optimizing the cell product through manufacturing enhancements and (3) working with disease area experts to gradually reduce the fraction of very heavily pre-treated patients with extreme tumor burden who have exhausted standard of care and have undergone multiple clinical trials. In addition, the focus in Phase 1b is also shifting from initial objective response rate (ORR) determined at the ~6-week scan to confirmed ORR determined at the ~12-week scan.

Preliminary Objective Response Rates (ORR; RECIST 1.1) in Phase 1a and Phase 1b Cohort A

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

*[1] All patients received >1 billion total TCR-T cells; [2] confirmed ORR (cORR), * 1 patient with SD at ~6-week scan with pending ~12-week scan considered as non-responder for cORR; DL – dose level*

Positively evolving durability profile for IMA203 was observed at higher doses: 6 of 12 patients (50%) treated with more than 1 billion infused TCR-T cells (DL4 and DL5) in the Phase 1a and Phase 1b cohort A part of the trial experienced a confirmed objective response (partial response according to RECIST 1.1). In the Phase 1b part of the trial alone, 4 of 5 patients (80%) had a confirmed objective response which were all ongoing at the timepoint of data cut-off.

"The data presented today highlight the clinical potential of PRAME as one of the most promising multi-tumor targets to achieve meaningful benefits for a large cancer patient population," commented Cedrik Britten, MD, Chief Medical Officer at Immatics. "In addition to this first data from IMA203 monotherapy today, we are awaiting data from two additional dose expansion cohorts: IMA203 together with an immune checkpoint inhibitor and our 2nd generation product candidate IMA203CD8. As we continue to shift our focus from Phase 1a to Phase 1b, we look forward to reporting meaningful data throughout 2023, including safety and response rates, as well as durability of response with a longer follow-up time. In addition, we are excited to start a first-in-human trial with our half-life extended Bispecific against PRAME, TCER® IMA402, also in 2023."

Safety data for IMA203 monotherapy across Phase 1a and Phase 1b: *Treatment with IMA203 continues to show manageable tolerability profile.*

- At data cut-off on September 6, 2022, 32 patients were infused with IMA203 TCR-T cells.
- Most frequent treatment-emergent adverse events (TEAEs) were as expected for cell therapies.
- All patients experienced expected cytopenia (Grade 1-4) associated with lymphodepletion. 31 patients (97%) experienced cytokine release syndrome (CRS) of any grade: 29 patients had low to moderate (Grade 1-2), and 2 patients had Grade 3 CRS that occurred in Phase 1a; both recovered to Grade ≤2 after 3 and 4 days. 5 patients (16%) experienced a low to moderate (Grade 1-2) immune effector cell associated neurotoxicity syndrome (ICANS). No dose-dependent increase of CRS and ICANS was observed.
- No additional dose limiting toxicities (DLT) were observed since the initial data release in March 2021.

Phase 1a - Clinical activity: *IMA203 demonstrated a high initial objective response rate in several solid tumor types.*

- At data cut-off on September 6, 2022, a total of 27 patients received IMA203 monotherapy in the Phase 1a dose escalation trial:
    - High initial objective response rate (ORR; partial responses according to RECIST 1.1) of 48% (13/27) was observed at the first CT scan post infusion at ~week 6, and a confirmed ORR of 19% (5/27) the second CT scan at ~week 12.
    - 7 out of 27 patients received doses above 1 billion TCR-T cells (DL4); initial ORR was 57% (4/7) and confirmed ORR was 29% (2/7) in these patients.
- Patients were heavily pre-treated with a mean of 4.2 lines of prior systemic treatment and a particularly high baseline tumor burden.

- The provisional recommended Phase 2 dose (RP2D) for Phase 1b dose expansion was determined to be DL4.

Phase 1b Cohort A - Clinical activity: *IMA203 monotherapy demonstrates high confirmed objective response rate of 80% with early signs of prolonged durability.*

- At data cut-off on September 6, 2022, 5 patients received IMA203 monotherapy at DL4 and DL5 in the Phase 1b cohort A dose expansion trial:
    - 4 out of 5 patients (80%) experienced an initial objective response at ~week 6 (PR according to RECIST 1.1).
    - In all 4 patients, objective responses were confirmed at ~week 12 and were ongoing at data cut-off: confirmed ORR was 80% (4/5).
    - All 4 responses were observed in different solid tumor types: cutaneous melanoma, ovarian cancer, uveal melanoma and head and neck cancer.
- Patients were heavily pre-treated with a mean of 4.0 lines of prior systemic treatment and high to moderate baseline tumor burden.

ACTengine® IMA203 is currently being evaluated in an ongoing Phase 1b study including three expansion cohorts: (A) IMA203 as a monotherapy, (B) IMA203 in combination with an immune checkpoint inhibitor and (C) IMA203CD8, a next-generation cell therapy where IMA203 engineered T cells are co-transduced with a CD8ab co-receptor. Further data read-outs on the individual cohorts are planned throughout 2023. In addition to the ACTengine® programs, Immatics is addressing PRAME-positive cancers with a second therapeutic modality: TCR Bispecifics. The company's TCER® IMA402 is a next-generation, half-life extended TCR Bispecific which will enter the clinic in 2023. Both approaches, ACTengine® and TCER®, are distinct therapeutic modalities that have the potential to provide innovative treatment options for a variety of cancer patient populations with different medical needs.

Immatics conference call

Immatics will host a conference call today, October 10, 2022, at 8:30 am EDT / 2:30pm CEST to discuss these clinical data. The webcast and presentation can be accessed directly through this link. Participants may also access the slides and the webcast on the Immatics website in the Investors section under "Presentations" at www.investors.immatics.com/events-presentations. A replay of the webcast will be made available shortly after the conclusion of the call and archived on the Company's website for at least 90 days.

About IMA203 and target PRAME

ACTengine® IMA203 T cells are directed against an HLA-A*02-presented peptide derived from preferentially expressed antigen in melanoma (PRAME), a protein frequently expressed in a large variety of solid cancers, thereby supporting the programs' potential to address a broad cancer patient population. Immatics' PRAME peptide is present at a high copy number per tumor cell and is homogenously and specifically expressed in tumor tissue. The peptide has been identified and characterized by Immatics' proprietary mass spectrometry-based target discovery platform XPRESIDENT®. Through its proprietary TCR discovery and engineering platform XCEPTOR®, Immatics has generated a highly specific T cell receptor (TCR) against this target for its TCR-based cell therapy approach, ACTengine® IMA203.

About ACTengine®

ACTengine® is a personalized cell therapy approach for patients with advanced solid tumors. The patient's own T cells are genetically engineered to express a novel, proprietary TCR directed against a defined cancer target. The modified T cells are then reinfused into the patient to attack the tumor. The approach is also known as TCR-engineered cell therapy (TCR-T). All Immatics' ACTengine® product candidates can be rapidly manufactured utilizing a proprietary manufacturing process designed to enhance T cell engraftment and persistence *in vivo*.

The ACTengine® T cell products are manufactured at the Evelyn H. Griffin Stem Cell Therapeutics Research Laboratory in collaboration with UTHealth. The ACTengine® Programs are co-funded by the Cancer Prevention and Research Institute of Texas (CPRIT).

- END -

About Immatics

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

For regular updates about Immatics, visit www.immatics.com. You can also follow us on Twitter and LinkedIn.

Forward-Looking Statements:

Certain statements in this press release may be considered forward-looking statements. Forward-looking statements generally relate to future events or Immatics' future financial or operating performance. For example, statements concerning the timing of product candidates and Immatics' focus on partnerships to advance its strategy are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may", "should", "expect", "intend", "will", "estimate", "anticipate", "believe", "predict", "potential" or "continue", or the negatives of these terms or variations of them or similar terminology. Such forward-looking statements are subject to risks, uncertainties, and other factors which could cause actual results to differ materially from those expressed or implied by such forward looking statements. These forward-looking statements are based upon estimates and assumptions that, while considered reasonable by Immatics and its management, are inherently uncertain. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Factors that may cause actual results to differ materially from current expectations include, but are not limited to, various factors beyond management's control including general economic conditions and other risks, uncertainties and factors set forth in filings with the SEC. Nothing in this presentation should be regarded as a representation by any person that the forward-looking statements set forth herein will be achieved or that any of the contemplated results of such forward-looking statements will be achieved. You should not place undue reliance on forward-looking statements, which speak only as of the date they are made. Immatics undertakes no duty to update these forward-looking statements. All the scientific and clinical data presented within this press release are – by definition prior to completion of the clinical trial and a clinical study report – preliminary in nature and subject to further quality checks including customary source data verification.

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ACTengine® IMA203 TCR-T Targeting PRAME

– Monotherapy Interim Data Update

Cedrik Britten, Chief Medical Officer
Harpreet Singh, Chief Executive Officer

October 10, 2022

Delivering the Power of T cells to Cancer Patients

Forward-Looking Statement

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.

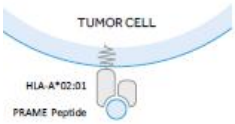
Forward-Looking Statements. Certain statements in this presentation may be considered forward-looking statements. Forward-looking statements generally relate to future events or the Company's future financial or operating performance. For example, statements concerning timing of data read-outs for product candidates, the timing of IND or CTA filing for pre-clinical stage 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", "intend", "will", "estimate", "anticipate", "believe", "predict", "potential" or "continue", or the negatives of these terms or variations of them or similar terminology. Such forward-looking statements are subject to risks, uncertainties, and other factors which could cause actual results to differ materially from those expressed or implied by such forward looking statements. These forward-looking statements are based upon estimates and assumptions that, while considered reasonable, Immatics and its management, are inherently uncertain. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Factors that may cause actual results to differ materially from current expectations include, but are not limited to, various factors beyond management's control including general economic conditions and other risks, uncertainties and factors set forth in the Company's 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.

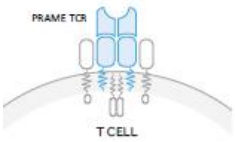
Multi-Tumor Target PRAME

Promising Opportunity for TCR-based Therapies



PRAME Peptide Target

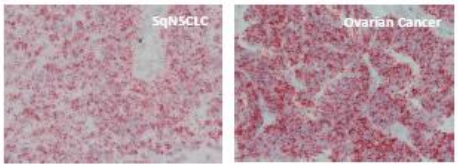
- HLA-A*02:01-presented peptide identified by XPRESIDENT® quant. mass spectrometry
- Presented at high target density in tumor tissue (100-1000 copies/cell)
- Homogenously expressed
- Highly cancer-specific, not expressed in normal tissue at relevant levels
- Highly prevalent across many solid cancers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



IMA203 T cell Receptor (TCR):

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

PRAME RNA detection in tumor samples (ISH)



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

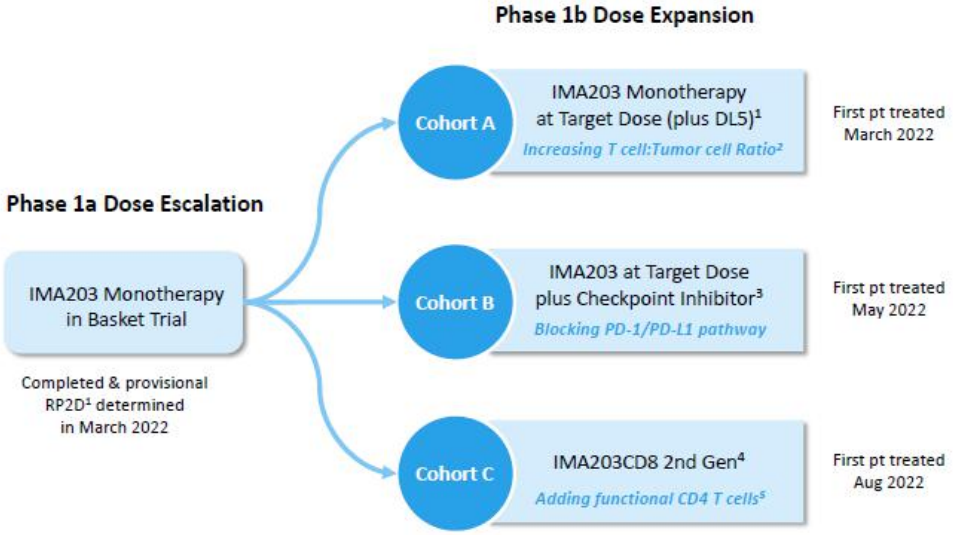
Uterine Carcinoma	90%
Cut. Melanoma	95%
Uveal Melanoma[2]	90%
Ovarian Carcinoma	70%

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

[1] PRAME target prevalence is based on TCGA (for SCLC: in-house) RNAseq data combined with a proprietary mass spec-guided RNA expression threshold; [2] 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.* 2016 Clinical Cancer Research; NSCLC: Non-small cell lung cancer, TNBC: Triple-negative breast cancer, HNSCC: Head and neck squamous cell carcinoma; HCC: Hepatocellular carcinoma

IMA203 TCR-T Phase 1 Design

Three Phase 1b Expansion Cohorts to Establish Durable Objective Responses

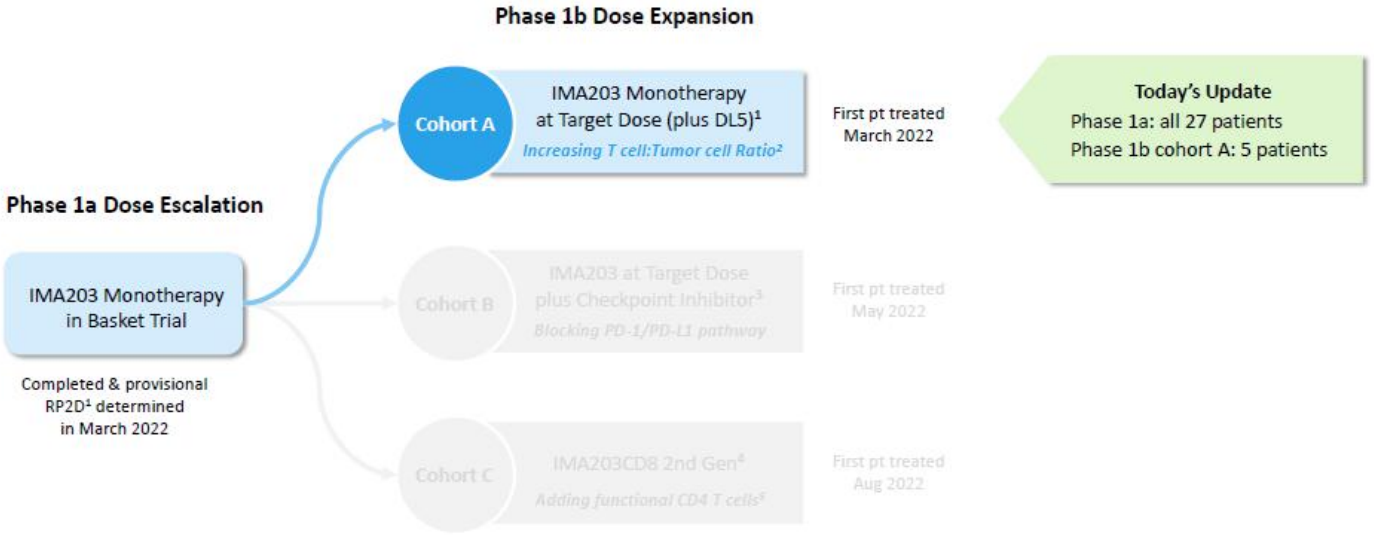


Each expansion cohort is designed to establish safety, evaluate the observed objective response rate, demonstrate durability & provide the trigger for registration trials

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

IMA203 TCR-T Phase 1 Design

Interim Clinical Data Update Focused on Phase 1a and Expansion Cohort A



Data cut-off – 06-Sept-2022

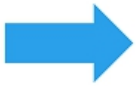
[1] RP2D (target dose) determined at DL4, exploration of higher dose (DL5) ongoing; [2] Demonstrated to be associated with durable response: Locke *et al.* 2020 Blood Advances; [3] Opdivo® (nivolumab): programmed death-1 (PD-1) immune checkpoint inhibitor; [4] Treatment of *n*=3 patients in DL3 prior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

Moving from Phase 1a to Phase 1b

Continuous Improvement of Key Aspects that May Influence Clinical Outcome

Our Focus in Phase 1a

- Safety
- Biological activity
- Initial signs of clinical activity



Our Focus in Phase 1b

- Safety
- Durability of response at 6 months and beyond to pave the way for registration trials

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

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

ACTengine® IMA203 – Interim Monotherapy Update

Phase 1a

Dose Escalation Data from 27 Patients

- Acceptable & manageable treatment-emergent adverse events (TEAEs)
- DL4 defined as provisional RP2D
- 48% (13/27) initial ORR[1] across all doses and multiple solid cancers
- Limited number of confirmed responses

Phase 1b Cohort A

Initial Data from 5 Patients

- Acceptable & manageable TEAEs
- Patients treated at RP2D (DL4) and exploratory DL5
- 80% (4/5) initial ORR[1] in patients with 4 different solid tumors
- 80% (4/5) confirmed ORR[2]: Confirmation of all objective responses after ~3 months; all responses ongoing

Key Take Aways

IMA203 Monotherapy

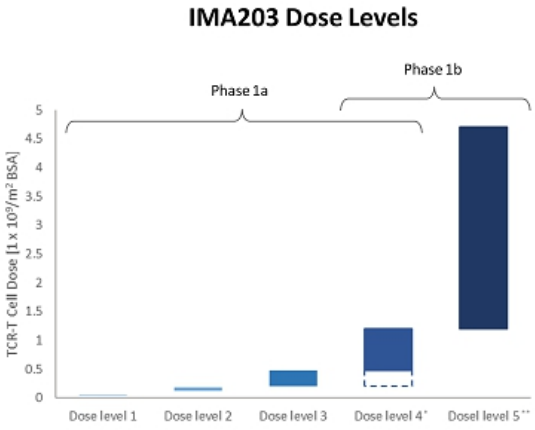
- Favorable tolerability profile
- Confirmed responses in multiple heavily pre-treated solid tumor types *(cut. melanoma, uveal melanoma, head and neck cancer, ovarian cancer, synovial sarcoma)*
- Positively evolving durability profile for IMA203
  - above 1 bn TCR-T cells (DL4/5)* in phase 1a and phase 1b: **50% (6/12) confirmed ORR[2]**
  - in phase 1b patients only: **80% (4/5) confirmed ORR[2]**

Data cut-off – 06-Sept-2022

[1] ORR: Objective response rate (partial responses) according to RECIST 1.1 at first scan post infusion (~6 weeks); [2] confirmed ORR: Confirmed objective response rate (confirmed partial responses) according to RECIST 1.1 at second scan post infusion (~12 weeks), 1 patient with SD at ~ 6-week scan with pending ~12-week scan considered as non-responder for confirmed ORR; * Total transduced viable CD8 T cells, all patients in Phase 1a DL4 and Phase 1b DL4/DL5; RPD2: Recommended Phase 2 dose; DL: Dose level

ACTengine® IMA203 Monotherapy – Patient and Product Characteristics

	Phase 1a Dose Escalation		Phase 1b (Cohort A) Dose Expansion
	All pts (DL1-4)	DL4 pts only	All pts (DL4/DL5)
Patients treated	27	7	5
Prior lines of treatment Mean (min, max)	4.2 (1, 8)	4.6 (1, 7)	4.0 (1, 10)
LDH at baseline >1 x ULN [% of patients]	66.7	85.7	40.0
Baseline tumor burden Mean target lesion sum of diameter [mm] (min, max)	130.3 (29.0, 219.7)	115.8 (37.0, 197.6)	55.2 (21.0, 102.9)
Dose Mean transduced viable CD8 T cells infused [x10^9] (min, max)	0.65 (0.08, 2.09)	1.48 (1.07, 2.09)	2.22 (1.30, 4.16)
Manufacturing Process	Prior versions[1]		Current version



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

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

Data cut-off – 06-Sept-2022

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

IMA203 Tolerability Profile – Most Frequent Adverse Events

Acceptable and Manageable Treatment-emergent Adverse Events (TEAEs)

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

Data cut-off – 06-Sept-2022

One patient that started lymphodepletion in Phase 1a died from sepsis of unknown origin and did not receive IMA203 T cells, patient reported earlier and not shown; CRS and ICANS graded by CARTOX criteria (Neelapu *et al.*, 2018);
[1] ICANS: Immune effector cell-associated neurotoxicity syndrome; [2] DLT: dose-limiting toxicity, one DLT in phase 1a at DL2 reported on March 17, 2021

Frequency of Observed Objective Responses

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

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

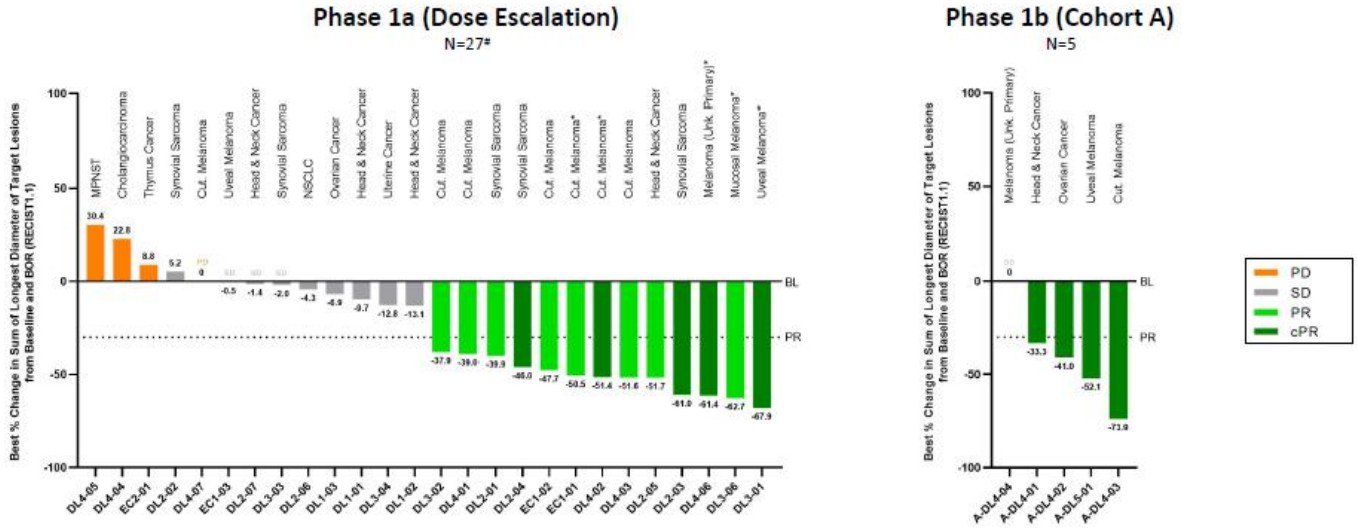
- Higher ORR and confirmed ORR observed at doses above 1 billion TCR-T cells (DL4, DL5)
- Early trends towards higher ORR and confirmed ORR observed in Phase 1b vs. Phase 1a patients

Data cut-off – 06-Sept-2022

[1] All patients received >1 x 10^9 total transduced viable CD8 T cells; [2] ORR: Objective response rate (partial responses) according to RECIST 1.1 at first scan post infusion (~6 weeks); [3] Confirmed ORR (cORR): Confirmed objective response rate (confirmed partial responses) according to RECIST 1.1 at second scan post infusion (~12 weeks); * 1 patient with SD at ~ 6-week scan with pending ~12-week scan considered as non-responder for cORR.

Best Overall Response

IMA203 Continues to Deliver Objective Responses in Major Solid Tumor Types



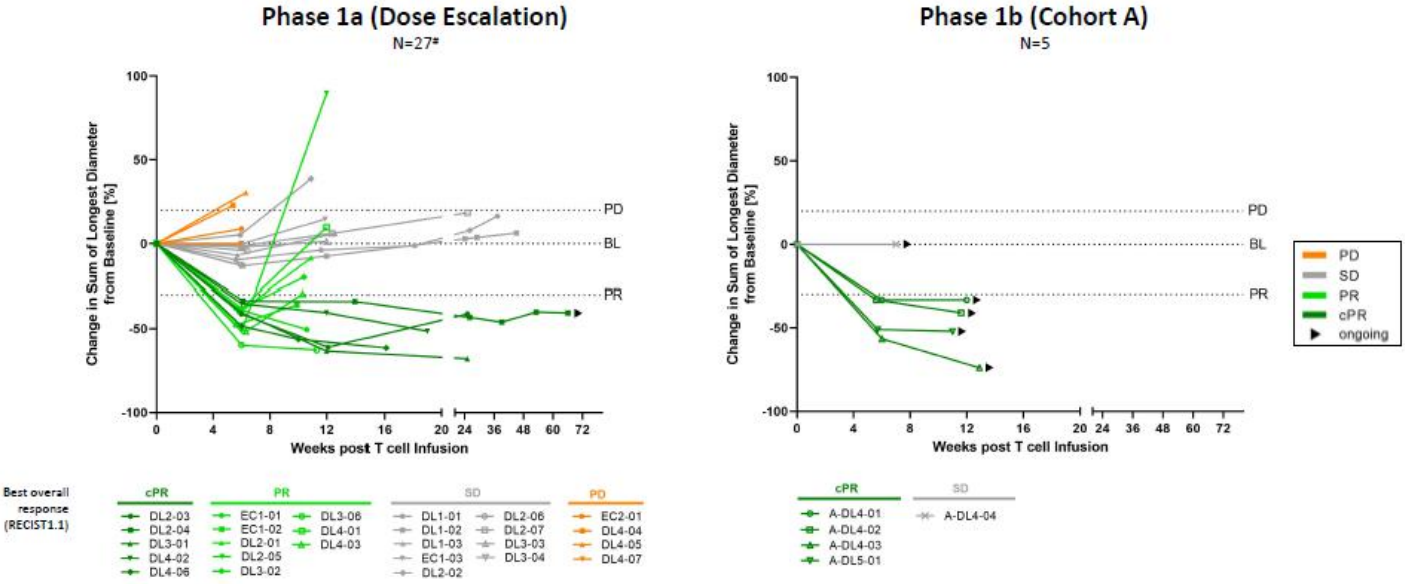
Confirmed objective responses across a broad spectrum of different tumor types such as cutaneous melanoma, uveal melanoma, head and neck cancer, ovarian cancer, synovial sarcoma

Data cut-off – 06-Sept-2022

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

Responses over Time

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



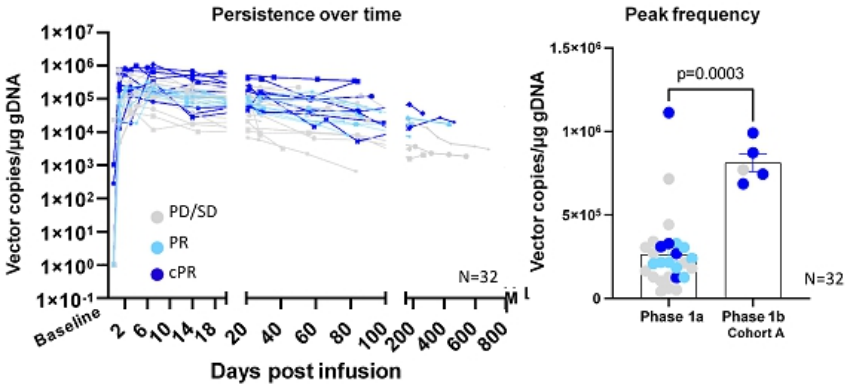
Data cut-off – 06-Sept-2022

Synovial sarcoma patient (DL3) PD at week 6 not shown as target lesions were not evaluable; PD: Progressive disease; SD: Stable disease; PR: Partial response; cPR: Confirmed partial response; BL: Baseline

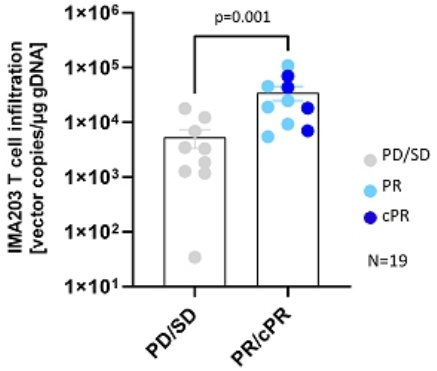
Translational Data Consistent with Clinical Outcomes

Supporting Proposed Mechanism of Action for IMA203

High IMA203 T cell engraftment and persistence in peripheral blood



IMA203 T cell infiltration into tumor correlates with objective responses[1]

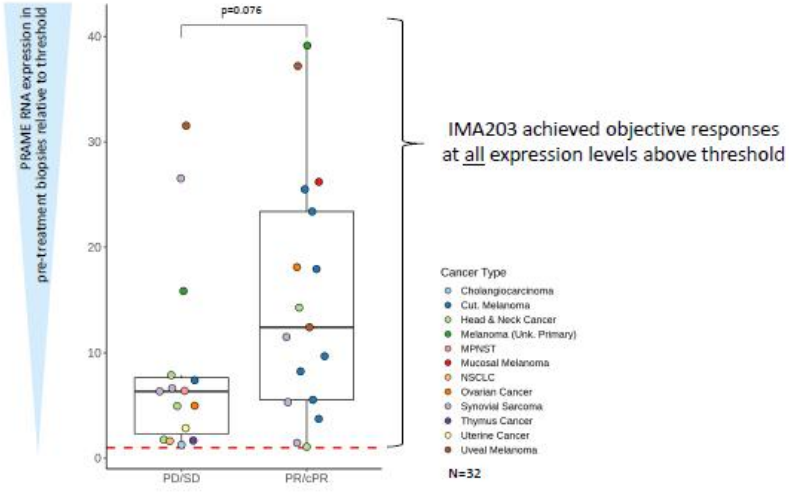


Data cut-off – 06-Sept-2022

Mann-Whitney U test; [1] T cell infiltration for 19 patients (9 non-responder, 10 responder) with 6-week post infusion biopsy available (1 patient with ~5-week post infusion biopsy)

PRAME Expression in Tumors from Screened Patients

Clinical Validation of Immatics' Mass Spectrometry-guided RNA Threshold for PRAME



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

Data cut-off – 06-Sept-2022

Mann-Whitney U test, p=0.076

Moving from Phase 1a to Phase 1b

Our Focus in Phase 1a

- Safety
- Biological activity
- Initial signs of clinical activity

Our Focus in Phase 1b

- Safety
- Durability of response at 6 months and beyond to pave the way for registration trials

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

1. **Higher T cell dose:** Only RP2D or exploratory DL5
2. **Enhanced cell product:** Implementation of manufacturing enhancements (e.g. monocyte depletion, see appendix) focusing on robustness, quality, and speed of product release
3. **"Real life" patients:** Working with more disease area experts to reduce the fraction of very heavily pre-treated patients with extreme disease burden who have exhausted standard of care and have undergone multiple clinical trials
4. **Transition to indication-specific development strategy:** Based on PRAME prevalence, patient population size and observed responses

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

~39,000 Patients per Year in the US only

Initial indications of interest based on PRAME prevalence, patient population size and observed clinical responses

Selected Indications	Incidence	R/R Incidence	PRAME Positive	Patient Population (Based on R/R Incidence; PRAME and HLA-A*02:01+)
Cut. Melanoma	99,800	7,700	95%	2,999
Uveal Melanoma	1,500	800	90%	295
Ovarian Carcinoma	19,900	12,800	80%	4,198
Uterine Carcinoma	62,700	10,700	100%	4,387
Uterine Carcinosarcoma	3,300	1,900	100%	779
Synovial Sarcoma	1,000	400	100%	164
Squamous NSCLC	57,000	34,600	65%	9,221
Small Cell Lung Cancer	31,900	19,400	55%	4,375
Cholangiocarcinoma	8,000	7,000	35%	1,005
Adeno NSCLC	91,200	55,300	25%	5,668
Breast Carcinoma	290,600	43,800	25% TNBC: 60%	4,490
HNSCC	66,500	15,100	25%	1,548

TOTAL ~39,000 annually in the US

Multiple opportunities to broaden patient reach and patient benefit:

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

Incidences based on public estimates and Immatics internal model; Relapsed/refractory (R/R) or last-line patient population approximated by annual mortality; Estimated 41% HLA-A*02:01 positive population in the US; PRAME target prevalence is based on TCGA (for SCLC: in-house) RNAseq data combined with a proprietary mass spectrometry-guided RNA expression threshold; Uveal melanoma target prevalence is based on IMADetect® qPCR testing of screening biopsies from clinical trial patients (n=21)

IMA203 Monotherapy – Conclusions

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

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

- IMA203 continues to be well tolerated with manageable safety profile
- Confirmed responses across a broad spectrum of different solid tumor types in heavily pre-treated patients
- Positively evolving durability profile for patients treated with higher doses and in phase 1b
- Clinical validation of PRAME biomarker threshold and associated prevalences

➢ **We have clinically validated PRAME as one of the largest known T cell targets for solid cancers to date**

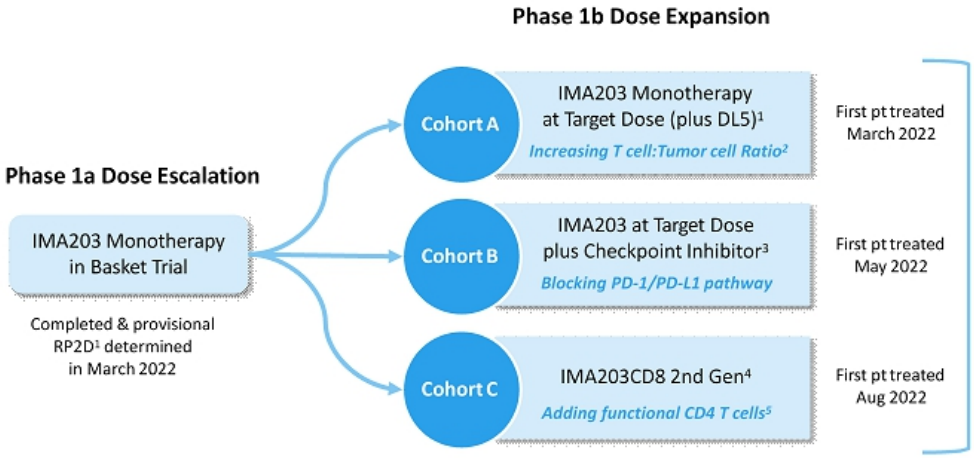
IMA203 development strategy:

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

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

Comprehensive PRAME Strategy

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



Upcoming Value Inflection Points for Our PRAME Programs

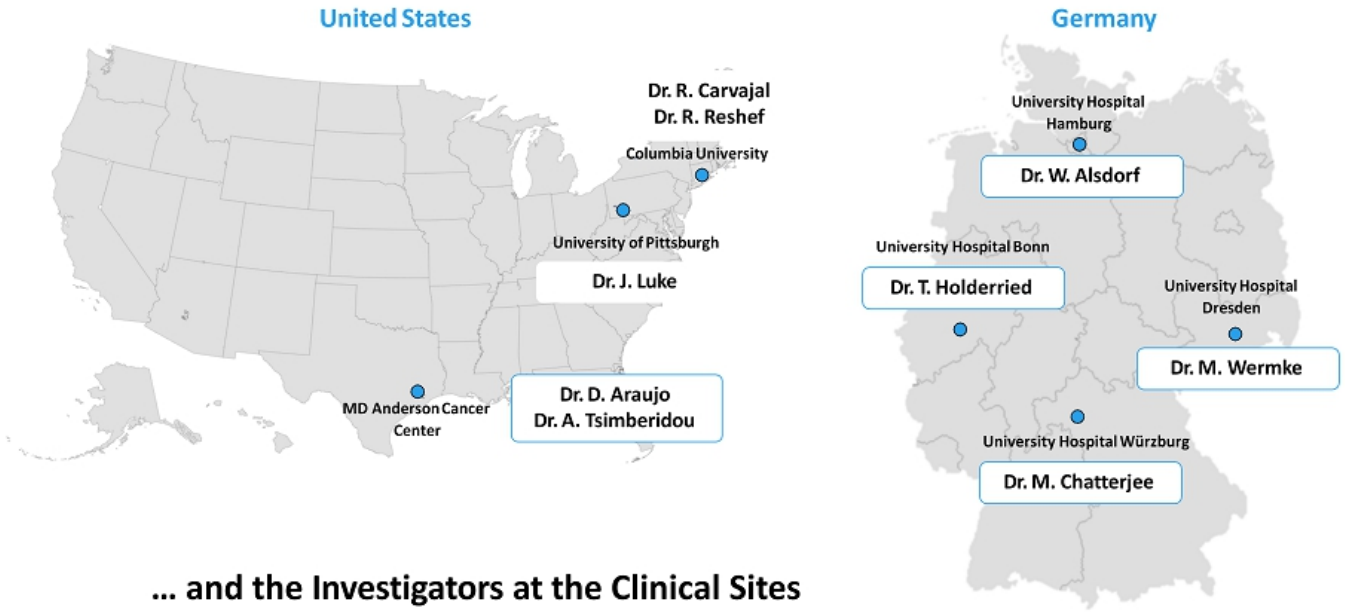
ACTengine® IMA203: Next data read-outs with meaningful data across all cohorts in 2023

⊕

TCER® IMA402: Entering clinical development in 2023

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

We are Immensely Grateful to the Patients, Their Families …



… and the Investigators at the Clinical Sites

Delivering

the Power of T cells to Cancer Patients

www.immatics.com

ACTengine® IMA203 Product Manufacturing

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

Accelerated Product Release

Leukapheresis

ACTengine® clinical programs: ~3 weeks

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

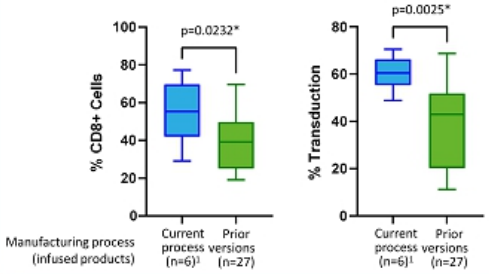
Faster ACTengine®: expected ~2 weeks

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

Implementation planned

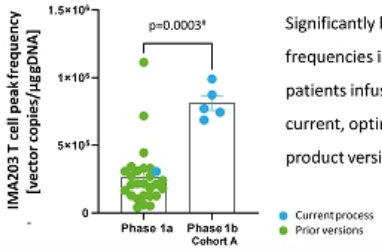
Infusion-Ready

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



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

- ✓ Monocyte depletion
- ✓ Serum-free transduction



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

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

IMA203 Tolerability Profile – All ≥Grade 3 Adverse Events

TEAEs by maximum severity (N=33)[1*]

Adverse event	≥ Grade 3 No.	≥ Grade 3 %
Patients with any adverse event	33	100.0
Adverse Events of Special Interest		
Cytokine release syndrome	2	6.1
ICANS[2]	0	0.0
Blood and lymphatic system disorders		
Neutropenia	27	81.8
Lymphopenia	22	66.7
Leukopenia	20	60.6
Anaemia	17	51.5
Thrombocytopenia	13	39.4
Cytopenia	1	3.0
Leukocytosis	1	3.0
Lymphocytosis	1	3.0
Infections and infestations		
Appendicitis	1	3.0
COVID-19	1	3.0
Enterococcal infection	1	3.0
Orchitis	1	3.0
Sepsis[4,5]	1	3.0
Septic shock[4]	1	3.0
Respiratory, thoracic and mediastinal disorders		
Hypoxia	2	6.1
Bronchial obstruction	1	3.0
Laryngeal inflammation	1	3.0
Pleural effusion	1	3.0
Respiratory failure	1	3.0
General disorders and administration site conditions		
Condition aggravated[4]	1	3.0
Fatigue	1	3.0
Pyrexia	1	3.0
Swelling face	1	3.0
Gastrointestinal disorders		
Abdominal pain	1	3.0
Diarrhoea	1	3.0
Vomiting	1	3.0

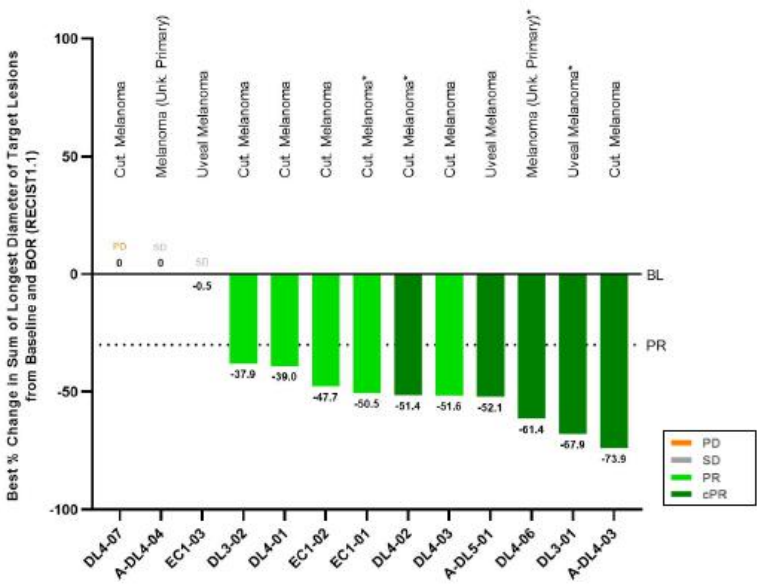
Adverse event	≥ Grade 3 No.	≥ Grade 3 %
table continued…		
Investigations		
Blood alkaline phosphatase increased	1	3.0
Blood creatinine increased	1	3.0
Blood fibrinogen decreased	1	3.0
Metabolism and nutrition disorders		
Hypokalaemia	2	6.1
Failure to thrive	1	3.0
Vascular disorders		
Hypertension	2	6.1
Hypotension	1	3.0
Injury, poisoning and procedural complications		
Fracture	1	3.0
Infusion related reaction	1	3.0
Renal and urinary disorders		
Acute kidney injury	1	3.0
Proteinuria	1	3.0
Cardiac disorders		
Atrial fibrillation[3]	1	3.0
Endocrine disorders		
Inappropriate antidiuretic hormone secretion	1	3.0
Eye disorders		
Ulcerative keratitis	1	3.0
Hepatobiliary disorders		
Cholangitis	1	3.0
Immune system disorders		
Contrast media allergy	1	3.0
Musculoskeletal and connective tissue disorders		
Muscle spasms	1	3.0
Reproductive system and breast disorders		
Vaginal haemorrhage	1	3.0
Skin and subcutaneous tissue disorders		
Rash maculo-papular	1	3.0

- IMA203 was well tolerated
- No ≥Grade 3 Adverse Events in ≥ 10% of patients except for expected events associated with lymphodepletion
- No IMA203-related Grade 5 Adverse Events

[1] 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 only Grade 1-2 occurred; 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 of 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 (06-Sep-2022); [2] ICANS: Immune effector cell-associated neurotoxicity syndrome; [3] DLT: Dose limiting toxicity in phase 1a at DL2 reported on March 17, 2021; [4] Fatal Adverse events in N=3 patients were not considered related to any study drug; [5] Patient did not receive IMA203 TCR-T cells; * 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, Diarrhoea, Cytokine release syndrome, Hypokalaemia, Proteinuria; Second patient: Fracture, Muscle spasms, Neutropenia, Thrombocytopenia.

Focus on Melanoma Patients

High ORR and cORR in Heavily Pre-Treated Patients with High Tumor Burden



Patient Characteristics (n=13)	
Prior lines of treatment Mean (min, max)	4.5 (1, 7)
Previous lines of CPI Mean (Min, Max)	2.5 (1, 4)
LDH at baseline >1 x ULN [% of patients]	69%

Particular hard-to-treat patient population enrolled so far

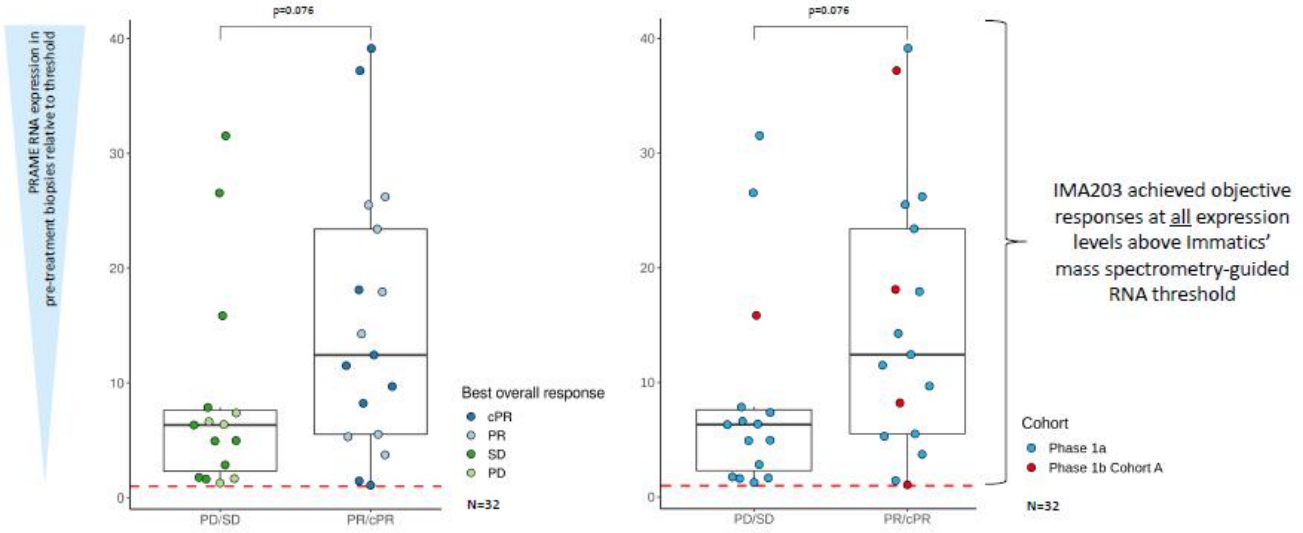
Melanoma Subtype	ORR (~6 weeks)[1]	cORR (~12 weeks)[2]
Melanoma (DL4/DL5)[3]	**6/8 (75%)**	**4/8 (50%)#**
Melanoma (all DL)	**10/13 (77%)**	**5/13 (38%)#**
Cutaneous Melanoma	7/8 (88%)	2/8 (25%)
Uveal Melanoma	2/3 (67%)	2/3 (67%)
Unknown Primary	1/2 (50%)	1/2 (50%)#

Data cut-off – 06-Sept-2022

* Maximum change of target lesions and RECIST1.1 response at different timepoints; [1] ORR: Objective response rate (partial responses) according to RECIST 1.1 at first scan post infusion (~6 weeks); [2] Confirmed ORR (cORR): Confirmed objective response rate (confirmed partial responses) according to RECIST 1.1 at second scan post infusion (~12 weeks); [3] All patients received >1x10[8] total transduced viable CD8 T cells; # 1 patient with SD at ~ 6-week scan with pending ~12-week scan considered as non-responder for cORR; CPI: checkpoint inhibitor

PRAME Expression in Tumors from Screened Patients

Highlighting Type of Best Overall Response (left) and Study Cohort (right)



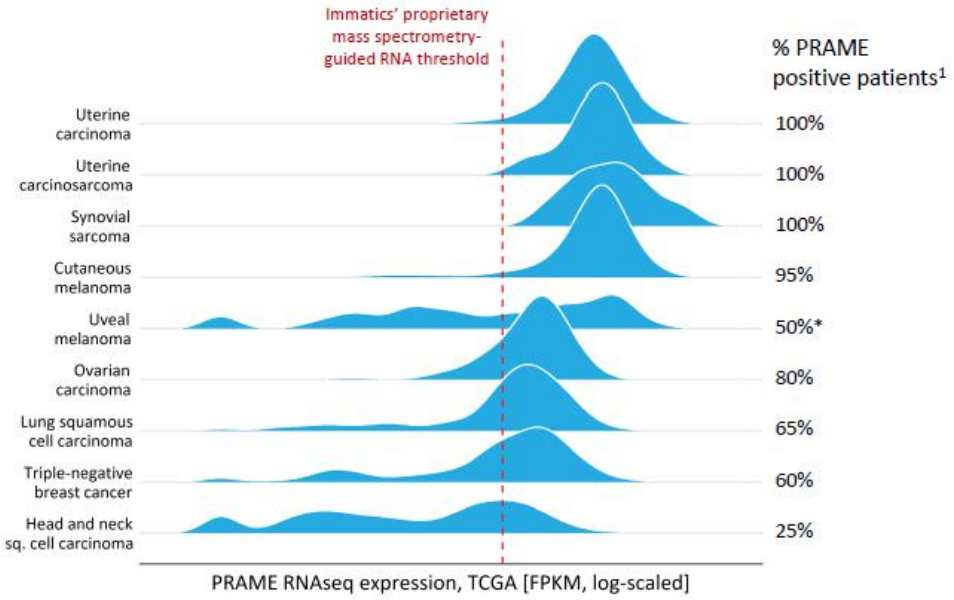
IMA203 has the potential to provide clinical benefit for all PRAME biomarker-positive cancer patients

Data cut-off – 06-Sept-2022

Mann-Whitney U test, p=0.076

PRAME Expression – RNAseq Data

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



[1] PRAME target prevalence is based on TCGA RNAseq data combined with a proprietary mass spectrometry-guided RNA expression threshold; * PRAME target prevalence in uveal melanoma based on IMADetect® qPCR testing of screening biopsies from clinical trial patients (n=21) demonstrates substantial higher prevalence of 90%, 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.* 2016 Clinical Cancer Research