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

March 22, 2023

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 March 22, 2023, Immatics N.V. (the "Company") issued a press release announcing its full year 2022 financial results and providing certain corporate updates. A copy of the press release is attached hereto as Exhibit 99.1. In addition, the Company made available an updated investor presentation. A copy of the presentation is attached hereto as Exhibit 99.2. The fact that the presentation is being made available and furnished herewith is not an admission as to the materiality of any information contained in the presentation. The information contained in the presentation is being provided as of March 22, 2023 and the Company does not undertake any obligation to update the presentation in the future or to update forward-looking statements to reflect subsequent actual results.

EXHIBIT INDEX

Exhibit No.	**Description**
99.1	Press release dated March 22, 2023
99.2	Corporate presentation dated March 2023

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: March 22, 2023

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

Immatics Announces Full Year 2022 Financial Results and Corporate Update

- ACTengine® IMA203 TCR-T monotherapy against PRAME showed 50% confirmed objective response rate (cORR) at or above target dose in different solid cancers in an interim clinical update in Phase 1a and Phase 1b in October 2022
- ACTengine® IMA203 TCR-T clinical data update on all three ongoing IMA203 Phase 1b cohorts (Cohort A: 1st-gen monotherapy, Cohort B: combination with a checkpoint inhibitor, Cohort C: 2nd-gen monotherapy), and identification of most promising cohort to advance towards pivotal trials is planned for 2H 2023; prioritization of patient treatment with 1st and 2nd-generation monotherapy
- Expansion of cell therapy manufacturing capabilities with construction of an in-house GMP manufacturing facility for registration-directed and commercial production of ACTengine® TCR-T products expected to be operational in 2024
- Phase 1 clinical trial for first TCR Bispecific candidate, TCER® IMA401 targeting MAGEA4/8 developed in collaboration with Bristol Myers Squibb commenced in May 2022; TCER® IMA402 targeting PRAME on track for CTA[1] submission in 2Q 2023
- Strategic collaboration with Bristol Myers Squibb has been expanded in June 2022 to develop allogeneic and autologous cell therapy programs; Immatics received $80 million upfront payment and is eligible for milestone payments as well as tiered royalties
- $110 million underwritten offering successfully completed in October 2022
- Cash and cash equivalents as well as other financial assets amount to $386.3 million[2] (€362.2 million) as of December 31, 2022, and projects cash runway into 2025

Tuebingen, Germany and Houston, TX, March 22, 2023 – Immatics N.V. (NASDAQ: IMTX; "Immatics"), a clinical-stage biopharmaceutical company active in the discovery and development of T cell-redirecting cancer immunotherapies, today provided a business update and reported financial results for the quarter and full year ended December 31, 2022.

Harpreet Singh, Ph.D., CEO and Co-Founder of Immatics commented, "Our ACTengine® IMA203 clinical trial has gained significant traction over the past year with promising data for our

[1] Clinical Trial Application (CTA) is the European equivalent of an Investigational New Drug (IND) application

[2] All amounts translated using the exchange rate published by the European Central Bank in effect as of December 31, 2022 (1 EUR = 1,0666 USD).

monotherapy candidate targeting PRAME. As we continue demonstrating the potential of our first- and second-generation product candidates in patients, we have commenced establishing our in-house GMP cell therapy manufacturing facility in Houston, TX. This positions us to scale our cell therapies for registration-directed trials and commercial supply. In addition, we have significantly advanced our clinical TCR Bispecifics pipeline with one TCER® program targeting MAGEA4/8 now in the clinic and a second TCER® program targeting PRAME commencing clinical studies this year. We demonstrated our ability to execute and deliver on our goals in 2022 and look forward to continuing on this path in 2023."

Full Year 2022 and Subsequent Company Progress

Adoptive Cell Therapy Programs

- **ACTengine® IMA203 (PRAME)** – Immatics is investigating IMA203 TCR-T in a Phase 1b trial including three ongoing dose expansion cohorts. Immatics' focus for 2023 is to advance its monotherapy product candidates, 1st-generation IMA203 TCR-T (Cohort A) and 2nd-generation IMA203CD8 TCR-T (Cohort C) in the last-line therapy setting. Data generated throughout 2023 with longer follow-up to assess durability of response is intended to identify the most promising cohort to advance towards pivotal trials and potential commercialization. The clinical data update on all three cohorts is planned for 2H 2023.

  IMA203 TCR-T monotherapy (Cohort A):

  - In October 2022, Immatics provided an interim update on the ongoing IMA203 TCR-T monotherapy trial covering data from 27 patients in the completed Phase 1a dose escalation and the first 5 patients in the Phase 1b dose expansion trial.
  - Treatment with IMA203 continued to show a manageable tolerability profile in a heavily pre-treated patient population.
  - A confirmed objective response rate (cORR) of 50% (6/12) was observed at target dose or above across Phase 1a and Phase 1b.
  - Confirmed responses were observed in 4/5 (80%) patients in the Phase 1b trial alone with early signs of prolonged durability at 12 weeks of follow-up with all responses ongoing at data cut-off.
  - Manufacturing enhancements implemented in Phase 1b (including monocyte depletion) resulted in higher infused T cell doses and significantly higher T cell peak expansion and persistence.
  - Confirmed responses were observed across different solid tumor types: cutaneous melanoma, ovarian cancer, head and neck cancer, uveal melanoma, and synovial sarcoma.

IMA203 TCR-T in combination with nivolumab (Cohort B):

- In May 2022, the first patient was treated with IMA203 in combination with the PD-1 immune checkpoint inhibitor nivolumab at the provisional recommended Phase 2 dose (RP2D).
- Immatics is currently prioritizing patient treatment with IMA203 and IMA203CD8 TCR-T monotherapy in a last-line therapy setting but is considering further investigation of a combination with nivolumab as a front-line therapy.

IMA203CD8 2nd-generation TCR-T monotherapy (Cohort C):

- IMA203CD8 is Immatics' 2nd-generation monotherapy product candidate directed against PRAME in which IMA203 engineered T cells are co-transduced with a CD8αβ co-receptor that engages functional CD4 and CD8 T cells.
- The first patient was treated in August 2022. As IMA203CD8 is a novel product candidate under a new IND amendment, a staggered enrollment was implemented; the treatment of three patients at dose level 3 (DL3) has been completed. Patients are currently being treated at DL4a (up to $0.8x10^9$ TCR-T cells/m^2 body surface area).

- **Cell Therapy Manufacturing** – Immatics is further enhancing its cell therapy manufacturing process and capabilities.
  - Immatics proprietary manufacturing process is designed to produce T cells within one week, followed by a recently implemented one-week quality control release testing (previously two weeks). This allows Immatics to shorten the turnaround time and to provide the cell therapy product candidate to patients faster.
  - Immatics is building a state-of-the-art 100,000 square foot research and commercial GMP manufacturing facility in the metropolitan area of Houston, Texas. The facility is intended to manufacture Immatics' ACTengine® IMA203 products as well as other future autologous and allogeneic cell therapy product candidates for early-stage and registration-directed clinical trials as well as for initial commercial supply. The facility is designed for flexibility and can be expanded in a modular fashion. The GMP manufacturing facility is expected to be operational in 2024.

- **ACTengine® IMA201 (MAGEA4/8) –** The Phase 1a dose escalation cohort at target dose is ongoing. Immatics plans to discontinue this program after treatment of the remaining patients already enrolled in the clinical trial in order to focus on its TCR Bispecific program TCER® IMA401 addressing the identical target peptide derived from MAGEA4/8 as IMA201.

- **ACTengine® IMA204 (COL6A3 exon 6)** – Immatics and the University of Pennsylvania co-authored a research paper published in the peer-reviewed journal, Science Translational Medicine highlighting the identification of a novel proprietary HLA-A*02:01-presented target,

collagen type VI alpha-3 (COL6A3) using Immatics' proprietary discovery platforms, XPRESIDENT® and XCEPTOR®. COL6A3 is expressed at high target density across multiple solid cancer indications and specific to the tumor stroma. Targeting tumor stroma provides an innovative therapeutic opportunity to disrupt the tumor microenvironment. The COL6A3-directed TCR-T candidate ACTengine® IMA204, developed by Immatics, was able to eliminate tumor cells at physiological target levels in *in vitro* studies and *in vivo* mouse models. The company has delayed the IND submission for IMA204 to consolidate its clinical resources on accelerating the clinical development of its PRAME-directed product candidates.

- **ACTallo® pipeline** – In June 2022, Immatics entered into two strategic collaborations with the goal of developing transformative next-generation allogeneic gamma delta TCR-T/CAR-T programs with enhanced persistence, safety and potency, by combining Immatics' proprietary ACTallo® platform with Bristol Myers Squibb's next-generation technologies and Editas Medicine's CRISPR gene editing technology.

  - Immatics entered into a new multi-program collaboration with Bristol Myers Squibb to develop allogeneic TCR-T/CAR-T programs using Immatics' proprietary ACTallo® platform and Bristol Myers Squibb's technologies. Immatics received $60 million upfront payment and is eligible for up to $700 million per program in milestone payments as well as tiered royalties. Immatics may also develop its own ACTallo®-based programs outside of the collaboration.

  - The strategic research collaboration and licensing agreement with Editas Medicine, Inc., combines Immatics' ACTallo® platform with Editas Medicine's CRISPR gene editing technology.

Autologous TCR-T pipeline

- Immatics and Bristol Myers Squibb expanded their autologous T cell receptor-based therapy (TCR-T) collaboration signed in 2019 by including one additional TCR-T target discovered by Immatics. Immatics received an upfront payment of $20 million and is eligible for milestone payments as well as royalties.

- In October 2022, GSK provided Immatics with notice of its decision to terminate their collaboration. Initially announced on February 20, 2020, the terms of the agreement included a €45 million (~$50 million) upfront payment to Immatics and the potential for additional milestone and royalty payments in return for access to two of Immatics' TCR-T programs. As communicated to Immatics, GSK's decision was made unrelated to the programs and the progress achieved in the collaboration to date. The termination was effective on December 26, 2022. GSK transferred the rights for both TCR-T programs back to Immatics.

TCR Bispecifics Programs

Immatics' TCER® candidates are next-generation, half-life extended TCR Bispecific molecules designed to maximize efficacy while minimizing toxicities in patients through its proprietary format using a low-affinity T cell recruiter and a high-affinity TCR domain.

- **TCER® IMA401 (MAGEA4/8)** – Immatics initiated a Phase 1 trial in May, to evaluate safety, tolerability and initial anti-tumor activity of its T cell engaging receptor (TCER®) IMA401 for patients with recurrent and/or refractory solid tumors. IMA401 is being developed in collaboration with Bristol Myers Squibb.

- **TCER® IMA402 (PRAME)** – A comprehensive preclinical data set was presented at the European Society for Medical Oncology (ESMO) congress in September 2022. The TCER® candidate IMA402 showed potent and selective activity against PRAME-positive tumor cell lines *in vitro*, high anti-tumor activity in *in vivo* mouse models, low target-independent T cell engager-associated cytokine release and favorable pharmacodynamic characteristics. The submission of the CTA[1] application for the Phase 1/2 trial is on track for 2Q 2023. Immatics plans to start the trial in 2H 2023 with a flexible dose escalation scheme for accelerated clinical development.

- **TCER® IMA403 and TCER® IMA40x** – Immatics continues to develop several innovative preclinical TCER® product candidates against so far undisclosed targets for their proprietary and/or partnered pipeline. IMA403 is in advanced preclinical development with proof-of-concept studies ongoing. Additionally, TCER® engineering and preclinical testing is ongoing for further TCER® candidates, IMA40x, targeting peptides presented by HLA-A*02:01 and other HLA-types.

Corporate Development

- Immatics successfully completed an underwritten public offering in October 2022, raising approximately $110 million before deducting underwriting discount and offering expenses. The offering included participation from investors including Armistice Capital Master Fund Ltd., Dellora Investments, EcoR1 Capital, Nantahala Capital, Perceptive Advisors, Rock Springs Capital, RTW Investments, LP, Samsara BioCapital, SilverArc Capital, Sofinnova Investments, Wellington Management, 683 Capital and other specialist biotech investors.

- Pursuant to Dievini Hopp Biotech Holding's rights under the business combination in 2020, dievini has designated Mathias Hothum, Ph.D., for election as a director at the 2023 annual general meeting of the shareholders in June 2023, as successor to Friedrich von Bohlen und Halbach, Ph.D. Dr. Hothum has been the Managing Director of dievini Hopp Biotech Holding, which manages the life science activities and investments of Dietmar Hopp and his family. He is also the Managing Director of several investment and consulting companies. Dr. Hothum holds a Ph.D. in Pharmaceutical Economics and Medical Sociology from the University of Magdeburg, Germany.

Full Year 2022 Financial Results

Cash Position: Cash and cash equivalents as well as other financial assets total €362.2 million ($386.3 million[2]) as of December 31, 2022 compared to €145.1 million ($154.8 million[2]) as of December 31, 2021. The increase is mainly due to our public offering and upfront payments for collaborations, partly offset by our ongoing research and development activities. The Company projects a cash runway into 2025.

Revenue: Total revenue, consisting of revenue from collaboration agreements, was €172.8 million ($184.3 million[2]) for the year ended December 31, 2022, compared to €34.8 million ($37.1 million[2]) for the year ended December 31, 2021.

Research and Development Expenses: R&D expenses were €106.8 million ($113.9 million[2]) for the year ended December 31, 2022, compared to €87.6 million ($93.4 million[2]) for the year ended December 31, 2021. The increase mainly resulted from higher costs associated with the advancement of the clinical and pre-IND pipeline of ACTengine® and TCER® candidates.

General and Administrative Expenses: G&A expenses were €36.1 million ($38.5 million[2]) for the year ended December 31, 2022, compared to €33.8 million ($36.1 million[2]) for the year ended December 31, 2021.

Net Profit and Loss: Net profit was €37.5 million ($40.0 million[2]) for the year ended December 31, 2022, compared to a net loss of €93.3 million ($99.5 million[2]) for the year ended December 31, 2021. The improvement resulted mainly from the one-time license fee income in connection with the IMA401 collaboration with Bristol Myers Squibb, as well as the recognition of remaining deferred revenue in connection with the termination of the GSK collaboration.

Full financial statements can be found in the Annual Report on Form 20-F filed with the Securities and Exchange Commission (SEC) and published on the SEC website under www.sec.gov.

[2] All amounts translated using the exchange rate published by the European Central Bank in effect as of December 31, 2022 (1 EUR = 1,0666 USD).

Upcoming Investor Conferences
Kempen Life Sciences Conference, Amsterdam – April 25-26, 2023
Bank of America Health Care Conference, Las Vegas (NV) – May 9-11, 2023
Jefferies Global Healthcare Conference, New York (NY) – June 7-9, 2023

To see the full list of events and presentations, visit www.investors.immatics.com/events-presentations.

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 as a means of disclosing material non-public information. For regular updates you can also follow us on Twitter, Instagram and LinkedIn.

Forward-Looking Statements

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

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Immatics N.V. and subsidiaries
Condensed Consolidated Statement of Profit/(Loss) of Immatics N.V.

	Year ended December 31,		
	2022	**2021**	**2020**
	(Euros in thousands, except share and per share data)		
Revenue from collaboration agreements	172,831	34,763	31,253
Research and development expenses	(106,779)	(87,574)	(67,085)
General and administrative expenses	(36,124)	(33,808)	(34,186)
Other income	26	325	303
Operating result	**29,954**	**(86,294)**	**(69,715)**
Change in fair value of liabilities for warrants	10,945	(10,990)	17,775
Share listing expense	—	—	(152,787)
Other financial income	9,416	5,675	2,949
Other financial expenses	(8,279)	(1,726)	(10,063)
Financial result	**12,082**	**(7,041)**	**(142,126)**
Profit/(loss) before taxes	**42,036**	**(93,335)**	**(211,841)**
Taxes on income	(4,552)	—	—
Net profit/(loss)	37,514	**(93,335)**	**(211,841)**
Attributable to:			
Equity holders of the parent	*37,514*	*(93,335)*	*(211,284)*
Non-controlling interest		—	*(557)*
Net profit/(loss) per share:			
Basic	0.56	(1.48)	(4.40)
Diluted	0.55	(1.48)	(4.40)

Immatics N.V. and subsidiaries
Condensed Consolidated Statement of Comprehensive Income/(Loss) of Immatics N.V.

	Year ended December 31,		
	2022	2021	2020
	(Euros in thousands)		
Net profit/(loss)	**37,514**	**(93,335)**	**(211,841)**
Other comprehensive income/(loss)			
Items that may be reclassified subsequently to profit or loss			
Currency translation differences from foreign operations	2,464	3,514	(6,689)
Total comprehensive income/(loss) for the year	**39,978**	**(89,821)**	**(218,530)**
Attributable to:			
Equity holders of the parent	*39,978*	*(89,821)*	*(217,973)*
Non-controlling interest	—	—	*(557)*

Immatics N.V. and subsidiaries
Condensed Consolidated Statement of Financial Position of Immatics N.V.

	As of	
	December 31, 2022	**December 31, 2021**
	(Euros in thousands)	
Assets		
Current assets		
Cash and cash equivalents	148,519	132,994
Other financial assets	213,686	12,123
Accounts receivables	1,111	682
Other current assets	13,838	6,408
Total current assets	**377,154**	**152,207**
Non-current assets		
Property, plant and equipment	13,456	10,506
Intangible assets	1,632	1,315
Right-of-use assets	13,033	9,982
Other non-current assets	2,545	636
Total non-current assets	**30,666**	**22,439**
Total assets	**407,820**	**174,646**
Liabilities and shareholders' equity		
Current liabilities		
Accounts payables	13,056	11,624
Deferred revenue	64,957	50,402
Liabilities for warrants	16,914	27,859
Lease liabilities	2,159	2,711
Other current liabilities	9,366	2,552
Total current liabilities	106,242	**95,148**
Non-current liabilities		
Deferred revenue	75,759	48,225
Lease liabilities	12,403	7,142
Other non-current liabilities	42	68
Total non-current liabilities	**88,204**	**55,435**
Shareholders' equity		
Share capital	767	629
Share premium	714,177	565,192
Accumulated deficit	(500,299)	(537,813)
Other reserves	(1,481)	(3,945)
Total shareholders' equity	**213,164**	**24,063**
Total liabilities and shareholders' equity	**407,820**	**174,646**

Immatics N.V. and subsidiaries
Condensed Consolidated Statement of Cash Flows of Immatics N.V.

	Year ended December 31,		
	2022	2021	2020
	(Euros in thousands)		
Cash flows from operating activities			
Net profit/(loss)	37,514	(93,335)	(211,841)
Taxes on income	4,522	—	—
Profit/(loss) before tax	**42,340**	**(93,335)**	**(211,841)**
Adjustments for:			
Interest income	(2,476)	(133)	(850)
Depreciation and amortization	6,967	5,260	4,424
Interest expenses	1,038	566	289
Share listing expense	—	—	152,787
Equity settled share-based payment	22,570	26,403	22,908
MD Anderson compensation expense	—	—	45
(Decrease) Increase in other liabilities resulting from share appreciation rights	—	—	(2,036)
Payment related to share-based compensation awards previously classified as equity-settled	—	—	(4,322)
Net foreign exchange differences and expected credit losses	2,953	(2,408)	437
Change in fair value of liabilities for warrants	(10,945)	10,990	(17,775)
Changes in:			
(Increase)/decrease in accounts receivables	(429)	569	(294)
(Increase) in other assets	(7,872)	(483)	(1,600)
Increase/(decrease) in deferred revenue, accounts payables and other liabilities	45,559	(31,784)	(23,387)
Interest received	1,649	175	808
Interest paid	(695)	(566)	(289)
Income tax paid	(224)	—	—
Net cash provided by/(used in) operating activities	**100,131**	**(84,746)**	**(80,696)**
Cash flows from investing activities			
Payments for property, plant and equipment	(5,738)	(5,106)	(7,420)
Payments for investments classified in Other financial assets	(216,323)	(11,298)	(58,087)
Proceeds from maturity of investments classified in Other financial assets	12,695	24,448	49,662
Payments for intangible assets	(477)	(551)	(104)
Proceeds from disposal of property, plant and equipment	52	—	—
Net cash (used in)/provided by investing activities	**(209,791)**	**7,493**	**(15,949)**
Cash flows from financing activities			
Proceeds from issuance of shares to equity holders	134,484	94	217,918
Transaction costs deducted from equity	(7,931)	—	(7,939)
Repayment of lease liabilities	(2,843)	(2,707)	(2,096)
Net cash provided by/(used in) financing activities	**123,710**	**(2,613)**	**207,883**
Net increase/(decrease) in cash and cash equivalents	**14,050**	**(79,866)**	**111,238**
Cash and cash equivalents at beginning of the year	**132,994**	**207,530**	**103,353**
Effects of exchange rate changes on cash and cash equivalents and expected credit losses	1,475	5,330	(7,061)
Cash and cash equivalents at end of the year	**148,519**	**132,994**	**207,530**

Immatics N.V. and subsidiaries
Condensed Consolidated Statement of Changes in Shareholders' equity (deficit) of Immatics N.V.

(Euros in thousands)	Share capital	Share premium	Accumulated deficit	Other reserves	Total equity (deficit) attributable to shareholders of the parent	Non-controlling interest	Total share-holders' equity (deficit)
Balance as of January 1, 2020	**1,164**	**190,945**	**(233,194)**	**(770)**	**(41,855)**	**1,020**	**(40,835)**
Other comprehensive loss	—	—	—	(6,689)	(6,689)	—	(6,689)
Net loss	—	—	(211,284)	—	(211,284)	(557)	(211,841)
Comprehensive loss for the year	**—**	**—**	**(211,284)**	**(6,689)**	**(217,973)**	**(557)**	**(218,530)**
Reorganization	(833)	833	—	—	—	—	—
Issue of share capital							
MD Anderson Share Exchange	7	501	—	—	508	(508)	—
PIPE Financing, net of transaction costs	104	89,973	—	—	90,077	—	90,077
ARYA Merger, net of transaction costs	180	237,864	—	—	238,044	—	238,044
SAR conversion	7	(7)	—	—	—	—	—
Total issuance of share capital	**298**	**328,331**	**—**	**—**	**328,629**	**(508)**	**328,121**
Equity-settled share-based compensation	—	22,908	—	—	22,908	—	22,908
Payments related to share-based compensation awards previously classified as equity-settled	—	(4,322)	—	—	(4,322)	—	(4,322)
MD Anderson milestone compensation expense	—	—	—	—	—	45	45
Balance as of December 31, 2020	**629**	**538,695**	**(444,478)**	**(7,459)**	**87,387**	**—**	**87,387**
Balance as of January 1, 2021	**629**	**538,695**	**(444,478)**	**(7,459)**	**87,387**	**—**	**87,387**
Other comprehensive income	—	—	—	3,514	3,514	—	3,514
Net loss	—	—	(93,335)	—	(93,335)	—	(93,335)
Comprehensive loss for the year	**—**	**—**	**(93,335)**	**3,514**	**(89,821)**	**—**	**(89,821)**
Equity-settled share-based compensation	—	26,403	—	—	26,403	—	26,403
Share options exercised	—	94	—	—	94	—	94
Balance as of December 31, 2021	**629**	**565,192**	**(537,813)**	**(3,945)**	**24,063**	**—**	**24,063**
Balance as of January 1, 2022	**629**	**565,192**	**(537,813)**	**(3,945)**	**24,063**	**—**	**24,063**
Other comprehensive income	—	—	—	2,464	2,464	—	2,464
Net profit	—	—	37,514	—	37,514	—	37,514
Comprehensive income for the year	**—**	**—**	**37,514**	**2,464**	**39,978**	**—**	**39,978**
Equity-settled share-based compensation	—	22,570	—	—	22,570	—	22,570
Share options exercised	—	311	—	—	311	—	311
Issue of share capital – net of transaction costs	138	126,104	—	—	126,242	—	126,242
Balance as of December 31, 2022	**767**	**714,177**	**(500,299)**	**(1,481)**	**213,164**	**—**	**213,164**

Immatics Corporate Presentation

March 22, 2023

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.

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Building a Leading TCR Therapeutics Company

Two Clinical-Stage Modalities

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

Clinical PoC for Cell Therapy

High rate of confirmed objective responses across multiple solid tumors in early TCR-T clinical development

Differentiated Platforms

Unique technologies to identify true cancer targets and right TCRs

Therapeutic Opportunity

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

Our Near-Term Focus – Clinical Development of Our Lead Assets from Our Autologous TCR-T (ACTengine®) and TCR Bispecifics (TCER®) Pipeline

ACTengine® IMA203 (PRAME)

Three IMA203 Ph1b cohorts:
- Monotherapy
- Checkpoint combo
- 2nd-gen IMA203CD8

Update on all three cohorts and identification of most promising cohort to advance towards pivotal trials is planned for 2H 2023

TCER® IMA401 (MAGEA4/8)

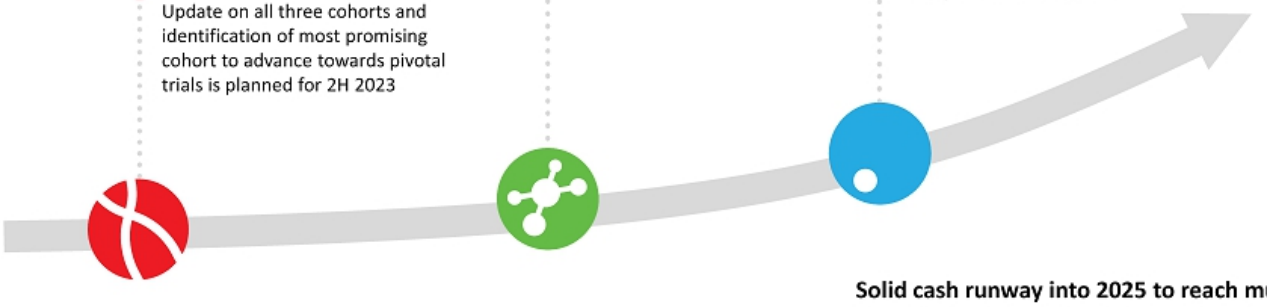
Advance ongoing Phase 1 clinical trial

Establish clinical PoC

TCER® IMA402 (PRAME)

Submission of CTA[1] application planned in 2Q 2023

Start of Phase 1/2 clinical trial planned in 2H 2023



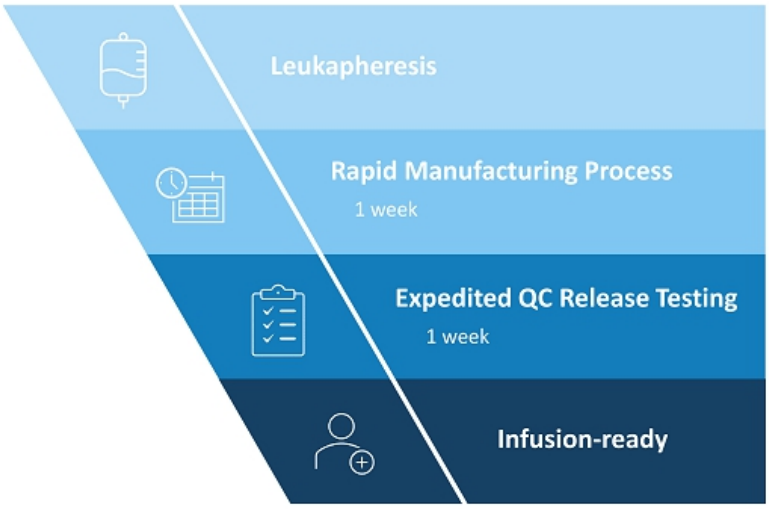
Solid cash runway into 2025 to reach multiple value inflections points across our portfolio

[1] Clinical Trial Application (CTA) is the European equivalent of an Investigational New Drug (IND) application

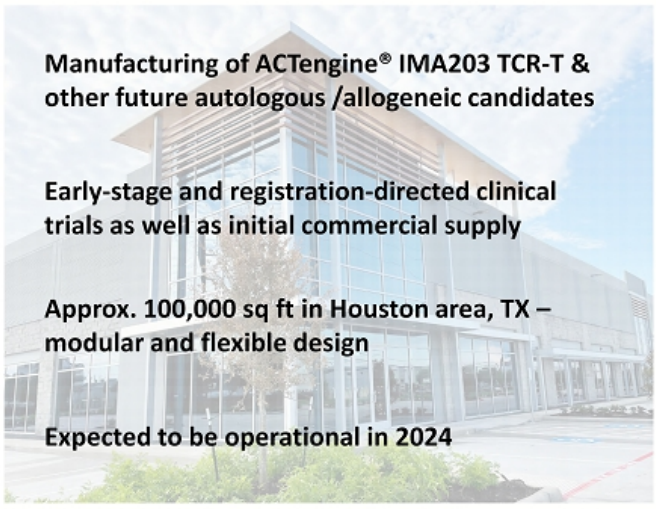
ACTengine® IMA203 TCR-T Product Manufacturing

Enhancing Manufacturing Process and Capabilities

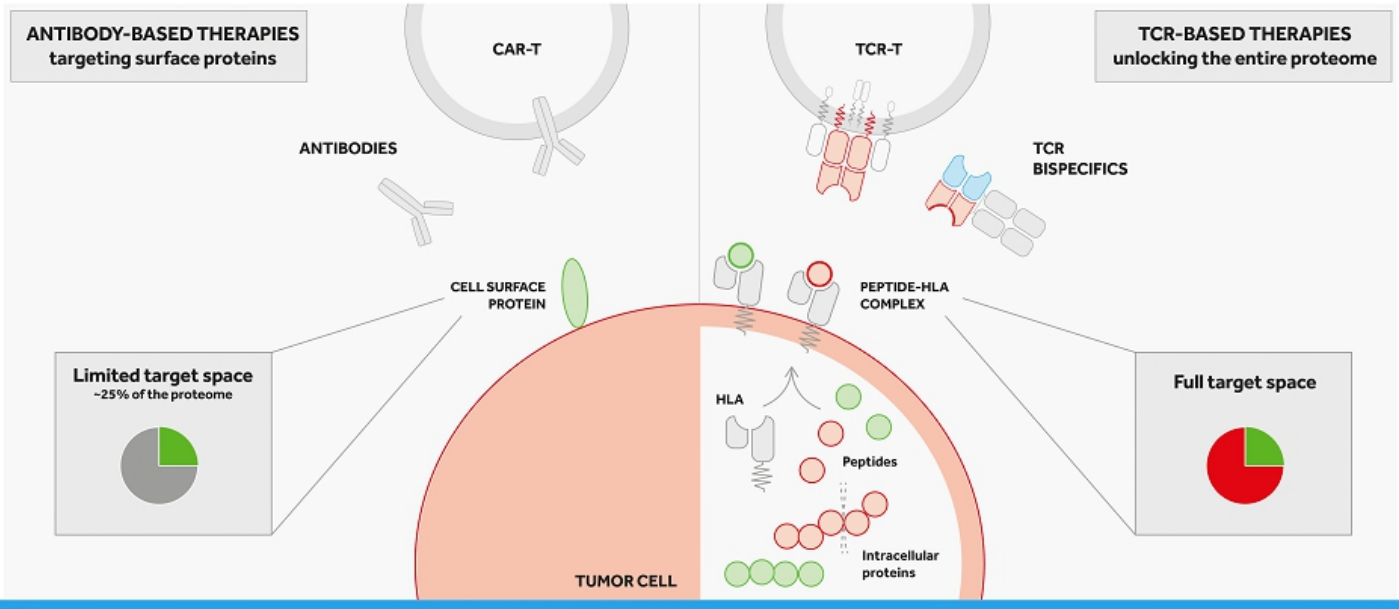
Short manufacturing turnaround time



State-of-the-art research & GMP manufacturing facility



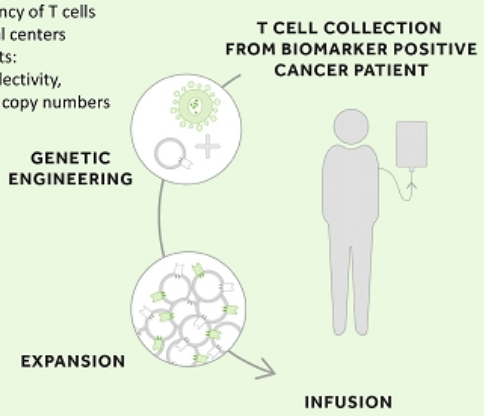
Our TCR-based Approaches Leverage the Full Target Space beyond the Cancer Cell Surface



Two Distinct TCR-based Therapeutic Modalities in Clinical Development

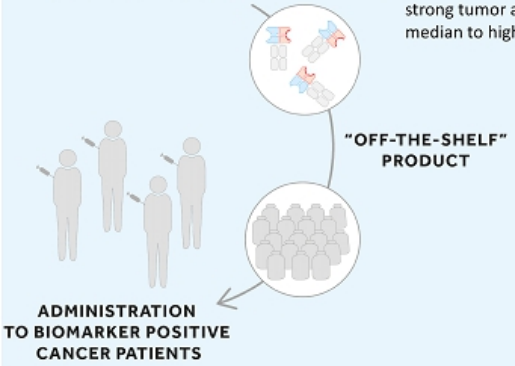
Autologous TCR-T (ACTengine®)

- Strong clinical activity in patients with high tumor burden[1]
- Single dose[2]
- Proprietary manufacturing process for enhanced potency of T cells
- Specialized medical centers
- Target requirements: stringent tumor selectivity, low, medium, high copy numbers



TCR Bispecifics (TCER®)

- Off-the-shelf biologic for immediate treatment
- Repeat dosing
- All hospitals and out-patient, opportunity for larger patient reach
- Favorable commercial characteristics
- Target requirements: strong tumor association, median to high copy numbers



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

[1] Interim data update from the ACTengine® IMA203 TCR-T Phase 1 trial with a 50% (6/12) confirmed ORR target dose or above with at least 1 billion infused TCR-T cells across several solid tumor indications, 80% (4/5) confirmed ORR in Phase 1b patients only; [2] Initial manufacturing may provide sufficient quantity for potential repeat dosing.

Our Pipeline of TCR-based Adoptive Cell Therapies and Bispecifics

Modality	Product Candidate	Target	Preclinical	Phase 1a[1]	Phase 1b[1]	Phase 2	Phase 3
Autologous ACT	ACTengine® IMA203	PRAME			+ Checkpoint Inhibitor[2]		
	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® IMA403	Undisclosed					
	Multiple programs	Undisclosed					

[1] Phase 1a: Dose escalation, Phase 1b: Dose expansion; [2] Opdivo® (nivolumab): programmed death-1 (PD-1) immune checkpoint inhibitor;
* Immatics proprietary ACTallo® platform utilizing Editas' CRISPR gene editing technology

Potential for Large Patient Populations across Multiple Solid Cancers

IMA203 / IMA402
PRAME

Uterine Carcinoma – 100%
Sarcoma Subtypes – up to 100%
Cut. Melanoma – 95%
Uveal Melanoma[1] – 90%
Ovarian Carcinoma – 80%
Squamous NSCLC – 65%
TNBC – 60%
Small Cell Lung Cancel – 55%
Kidney Carcinoma – up to 45%
Cholangiocarcinoma – 35%
Adeno NSCLC – 25%
Breast Carcinoma– 25%
HNSCC – 25%
Esophageal Carcinoma – 20%
HCC – 20%
Bladder Carcinoma – 20%

IMA401
MAGEA4/8

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

IMA204
COL6A3 Exon 6

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

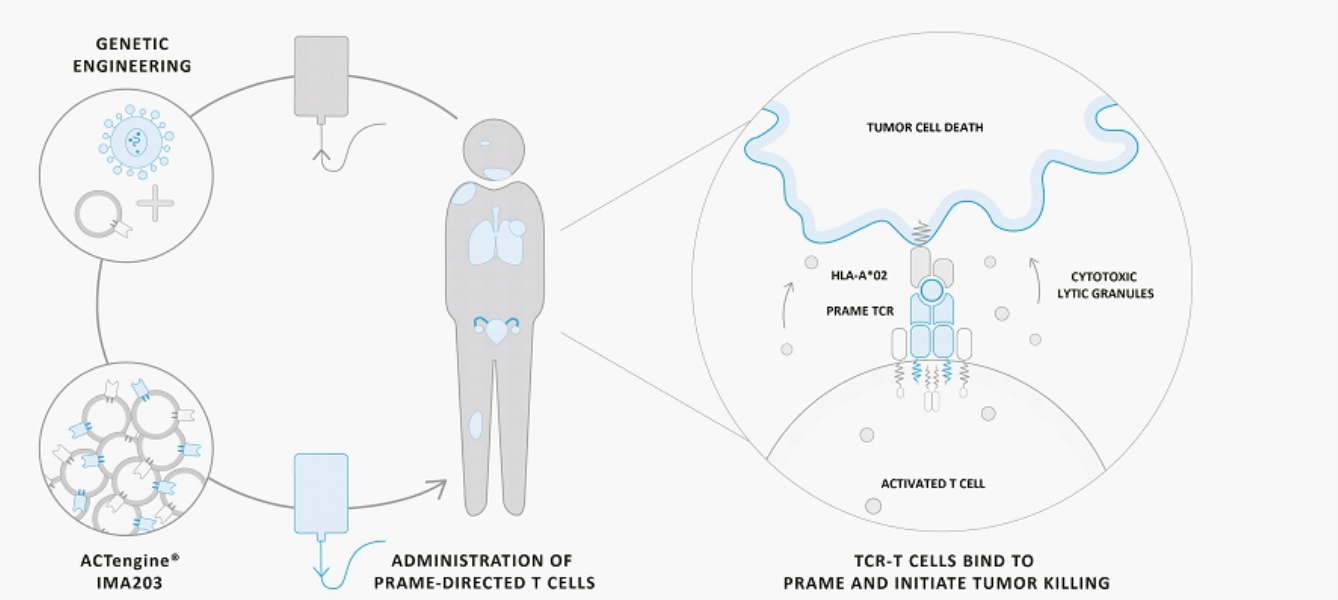
ACTengine® and TCER® targets demonstrate high prevalence in multiple solid cancers

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;
[1] Uveal melanoma target prevalence is based on IMADetect® qPCR testing of screening biopsies from clinical trial patients (n=21)

ACTengine® IMA203 – TCR-T Targeting PRAME

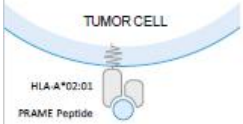
ACTengine® IMA203 Targeting PRAME – Mechanism of Action

Immatics' Leading TCR-T Approach



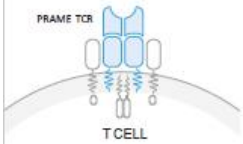
Multi-Tumor Target PRAME

Promising Opportunity for TCR-based Therapies



PRAME Peptide Target

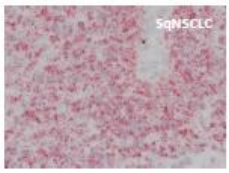
- HLA-A*02:01 presented peptide identified by XPRESIDENT® quant. mass spectrometry
- Presented at high target density in tumor tissue (100-1000 copies/cell)
- Homogenously expressed
- Highly cancer-specific, not expressed in normal tissue at relevant levels
- Highly prevalent across many solid cancers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

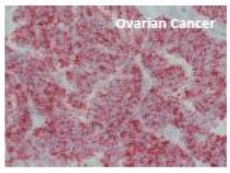


IMA203 T cell Receptor (TCR):

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

PRAME RNA detection in tumor samples (ISH)





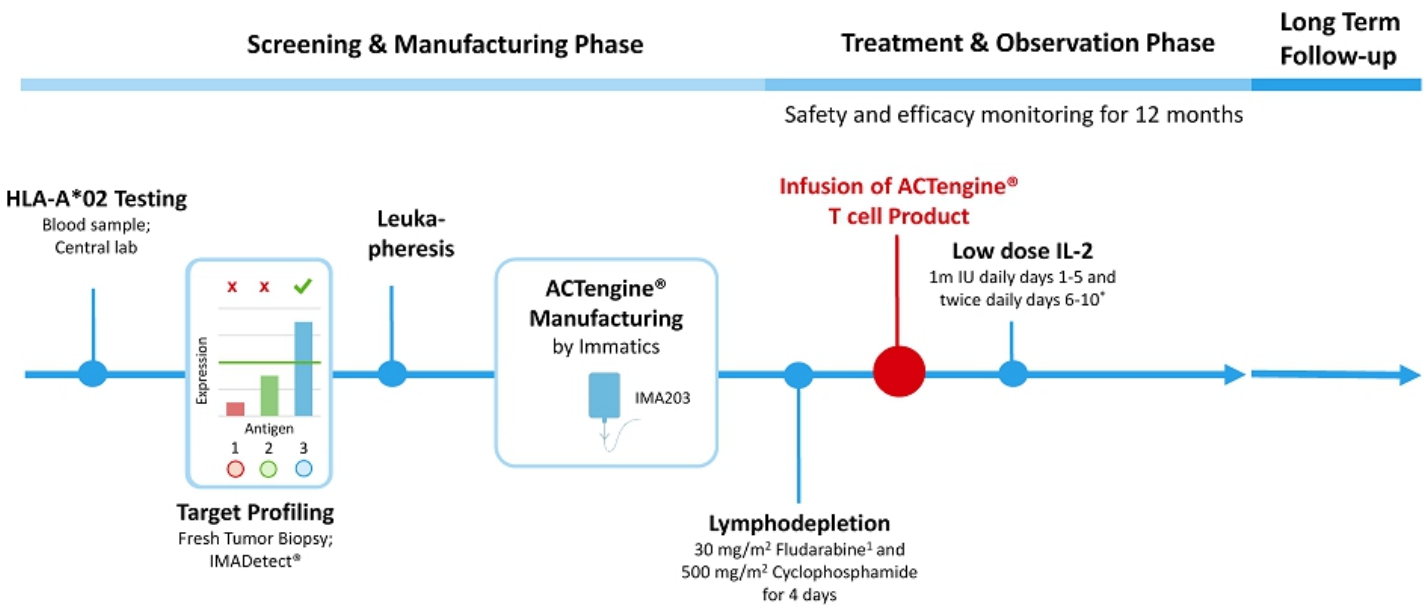
Patient screening data from Immatics' clinical trials support high prevalence of PRAME:

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

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

[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

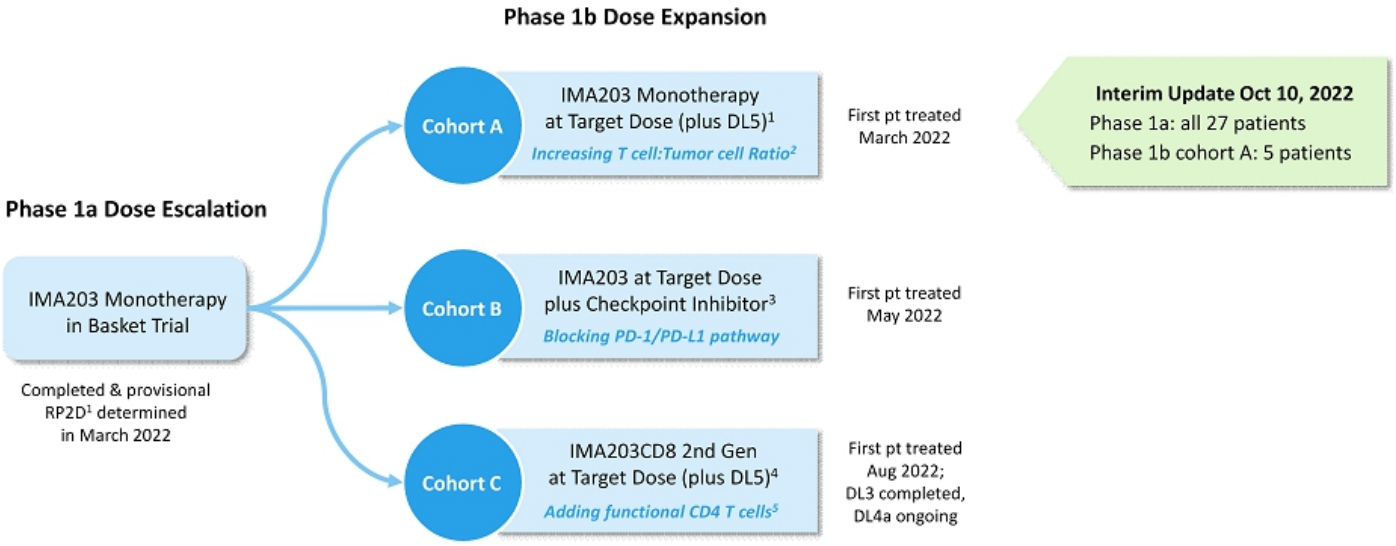
ACTengine® IMA203 – Patient Flow



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

IMA203 TCR-T Phase 1 Design

Three Phase 1b Expansion Cohorts to Establish Durable Objective Responses



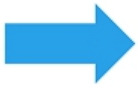
[1] RP2D (target dose) determined at DL4, exploration of higher dose (DL5) ongoing; [2] Demonstrated to be associated with durable response: Locke *et al.* 2020 Blood Advances; [3] Opdivo® (nivolumab): programmed death-1 (PD-1) immune checkpoint inhibitor; [4] Treatment of n=3 patients at DL3 completed, enrollment at DL4a ongoing before continuation at DL4b and potentially DL5; [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

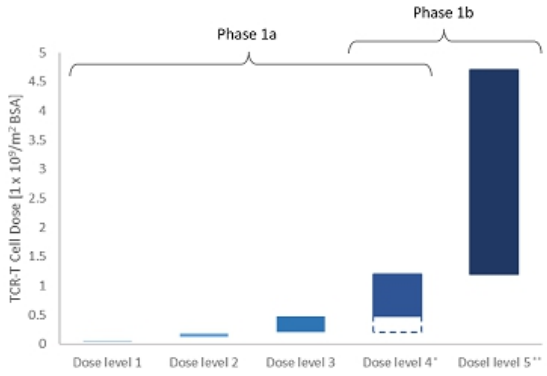
[1] ORR: Objective response rate (partial responses) according to RECIST 1.1 at first scan post infusion (~6 weeks); [2] confirmed ORR: Confirmed objective response rate (confirmed partial responses) according to RECIST 1.1 at second scan post infusion (~12 weeks), 1 patient with SD at ~ 6-week scan 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

IMA203 Dose Levels



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)*

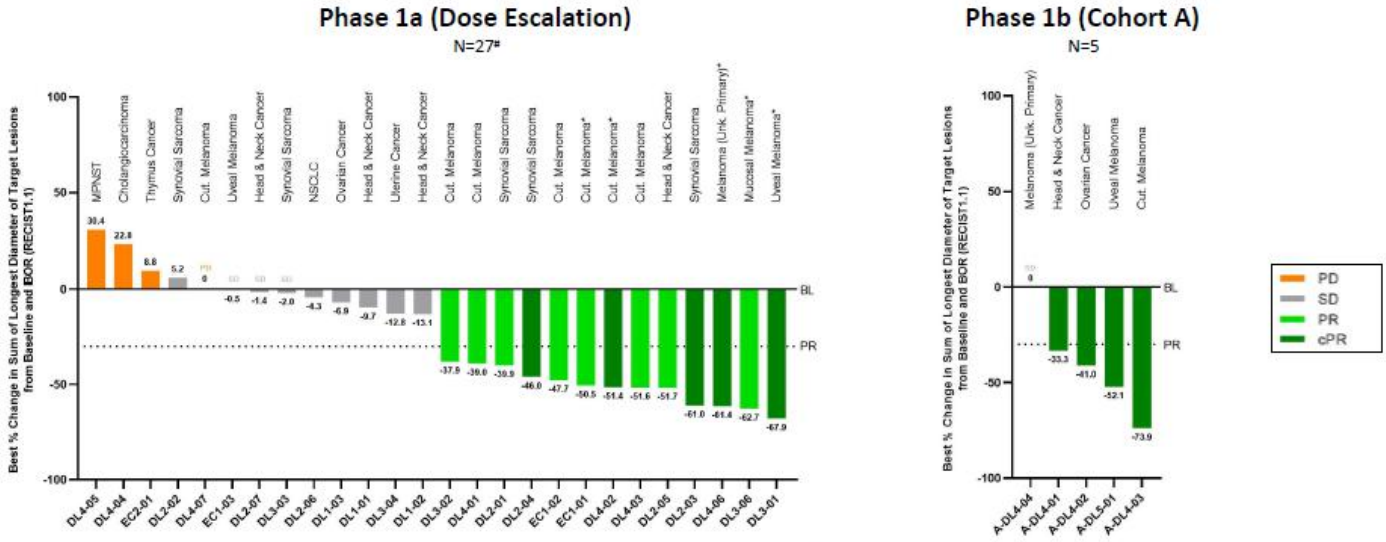
- Higher ORR and confirmed ORR observed at doses above 1 billion TCR-T cells (DL4, DL5)
- Early trends towards higher ORR and confirmed ORR observed in Phase 1b vs. Phase 1a patients

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

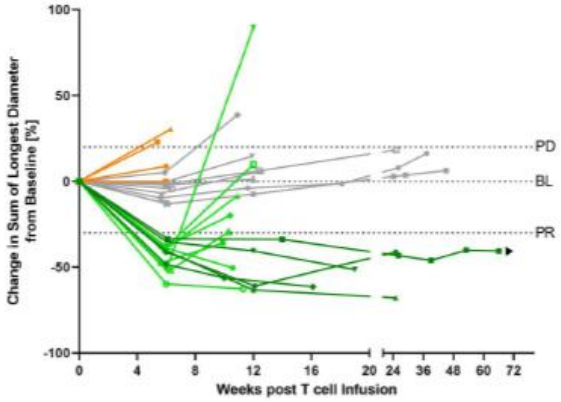
* Maximum change of target lesions and RECIST 1.1 BOR at different timepoints; # Synovial sarcoma patient (DL3) PD at week 6 not shown as target lesions were not evaluable; PD: Progressive disease; SD: Stable disease; PR: Partial response; cPR: Confirmed partial response; BL: Baseline

Responses over Time

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

Phase 1a (Dose Escalation)

N=27#

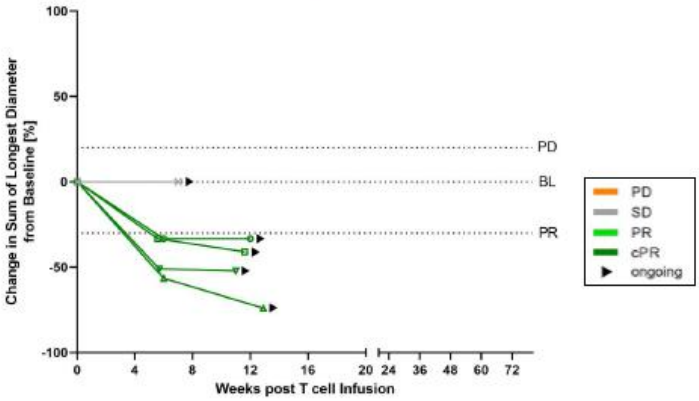


Best overall response (RECIST1.1)

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

Phase 1b (Cohort A)

N=5



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

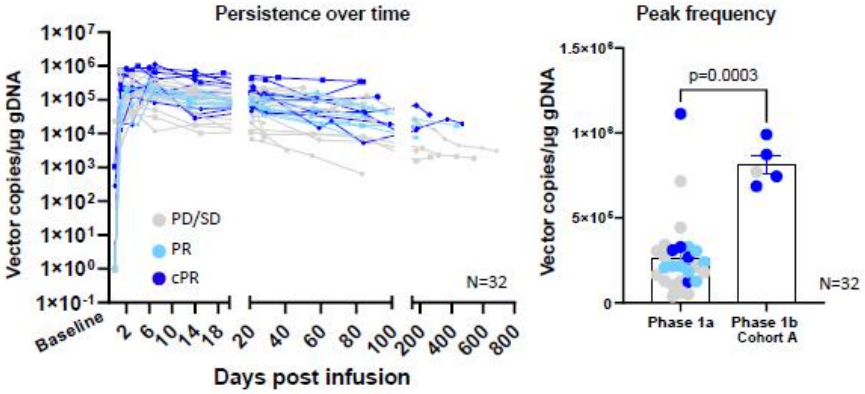
Data cut-off – 06-Sept-2022

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

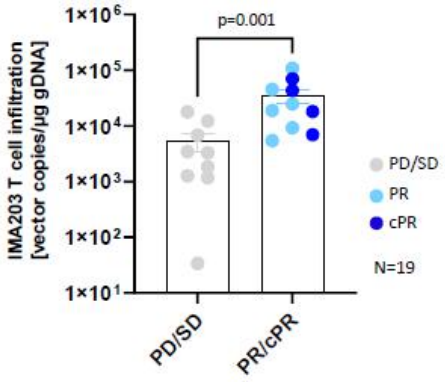
Translational Data Consistent with Clinical Outcomes

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]

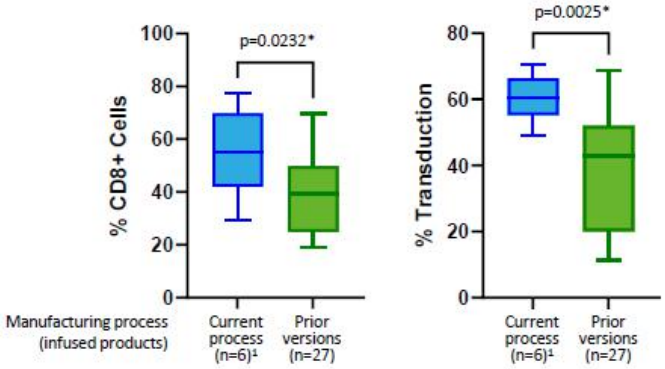


Data cut-off – 06-Sept-2022

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)

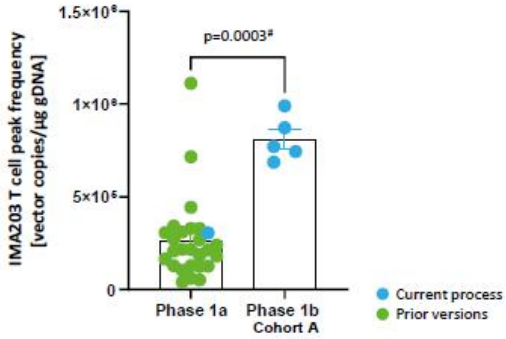
ACTengine® IMA203 Product Manufacturing

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

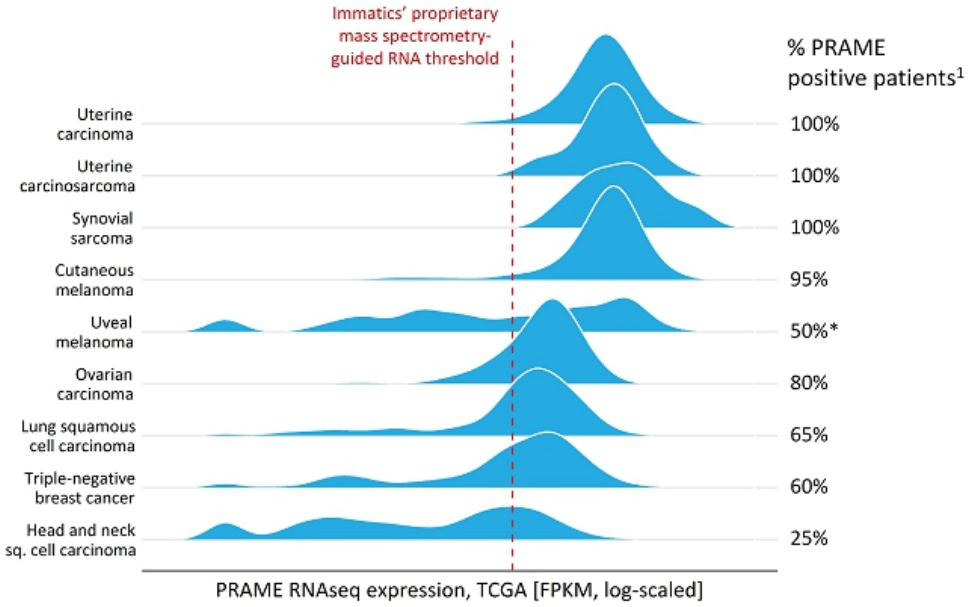


Significantly higher peak frequencies in Phase 1b patients infused with current, optimized product version

[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;
Mann-Whitney U test, 1 patient in Phase 1a at DL3 received ~0.5 x 10^9 total transduced viable CD8 T cells manufactured with current process

PRAME Expression – RNAseq Data

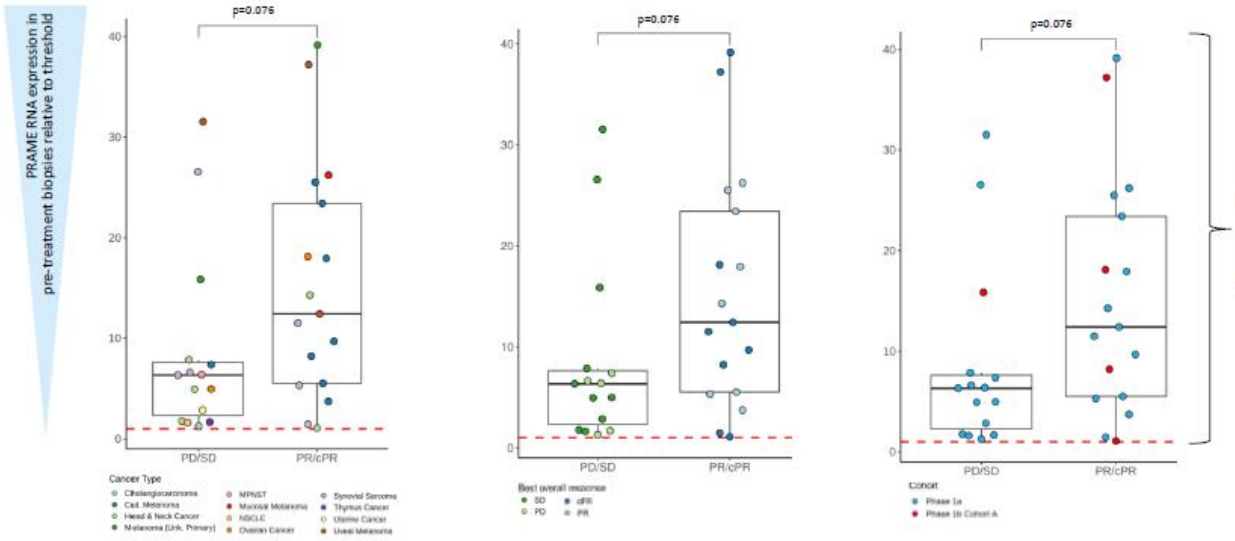
Combined with Immatics' Mass Spectrometry-guided RNA Threshold for Prevalence Prediction



[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

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

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



IMA203 achieved objective responses at all expression levels above Immatics' mass spectrometry-guided RNA threshold

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

Data cut-off – 06-Sept-2022

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 spec-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**

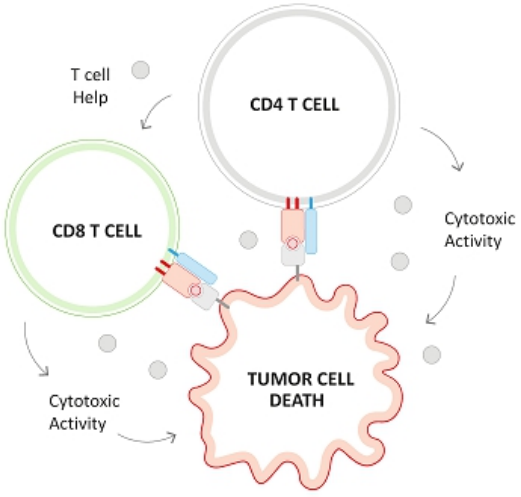
IMA203 development strategy:

- 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

ACTengine® IMA203CD8 – Next-generation TCR-T

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

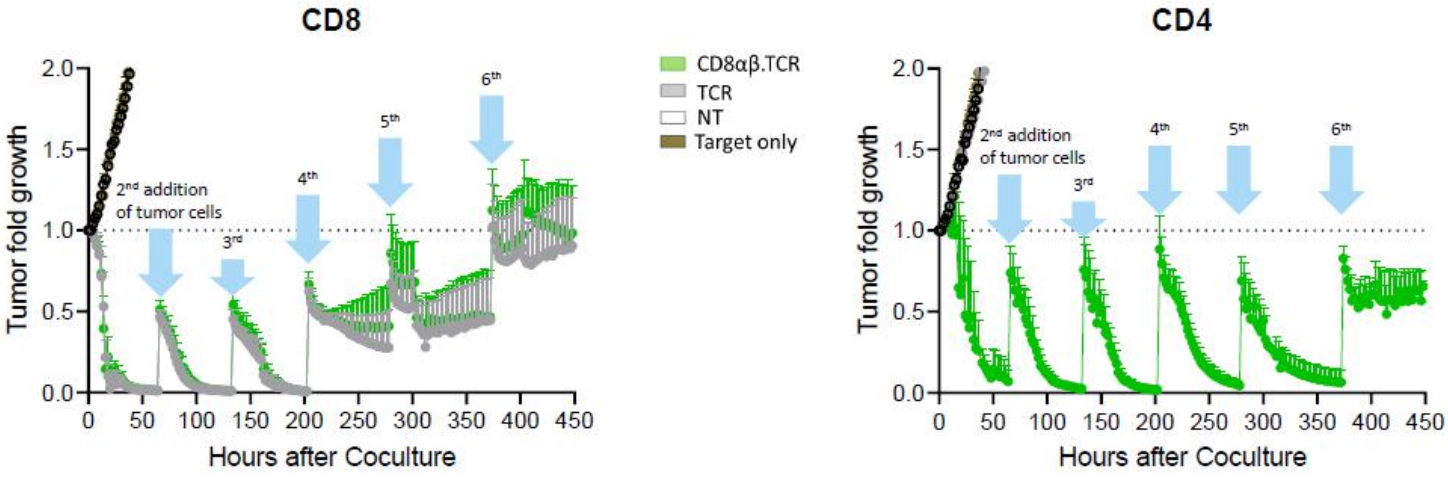


- Engagement of CD4 T cells by CD8 co-transduction reported to boost anti-tumor activity in TCR-T trials
- Recent data from leukaemia patients treated with CAR-T suggest a relevant role of engineered CD4 T cells in maintaining durable tumor responses over a long period of time[1]
- Functional superiority of the **CD8αβ** construct over multiple other CD8 constructs in preclinical experiments
- Proprietary 4-in-1 lentiviral vector to engineer CD4 and CD8 T cells with the PRAME-specific IMA203 TCR and CD8αβ construct (IMA203CD8)

[1] Melenhorst *et al.* 2022 Nature, Bai *et al.* 2022 Science Advances

ACTengine® IMA203CD8 – Preclinical Assessment of Anti-Tumor Efficacy

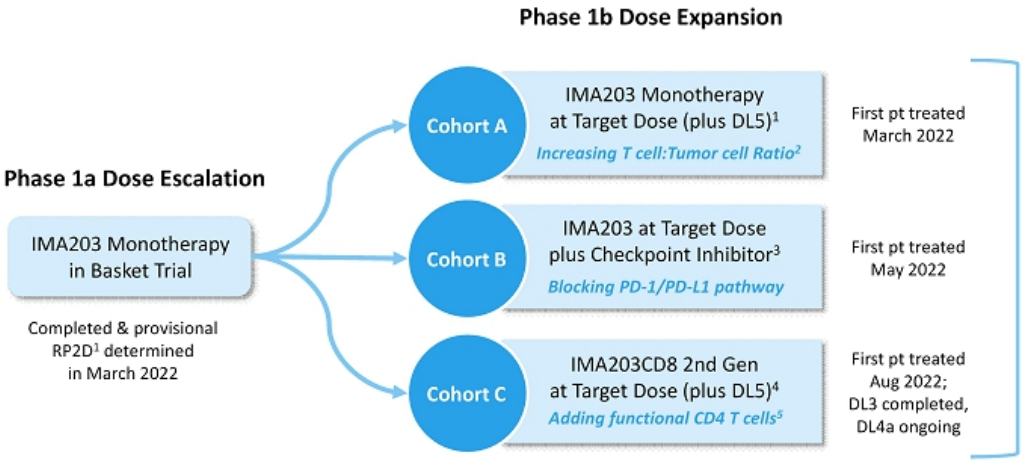
Functional CD4 T cells Mediate Longer Anti-Tumor Activity than CD8 T cells *in vitro*



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

Comprehensive PRAME Strategy

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



Upcoming Value Inflection Points for Our PRAME Programs

ACTengine® IMA203: Update on all three cohorts and identification of most promising cohort to advance towards pivotal trials is planned for 2H 2023

⊕

TCER® IMA402: Entering clinical development in 2H 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 at DL3 completed, enrollment at DL4a ongoing before continuation at DL4b and potentially DL5; [5] Demonstrated to be important for long-term remission: Melenhorst *et al.* 2022 Nature, Bai *et al.* 2022 Science Advances;

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[1]: **100-700 copies/cell**

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

TCR

High-affinity, specific TCR targeting COL6A3 exon 6

Affinity-maturated, CD8-independent TCR

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

Identified and characterized by XCEPTOR® TCR discovery and engineering platform

PRECLINICAL DATA

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

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

Complete tumor eradication in *in vivo* mouse models

PATIENT POPULATION[3]

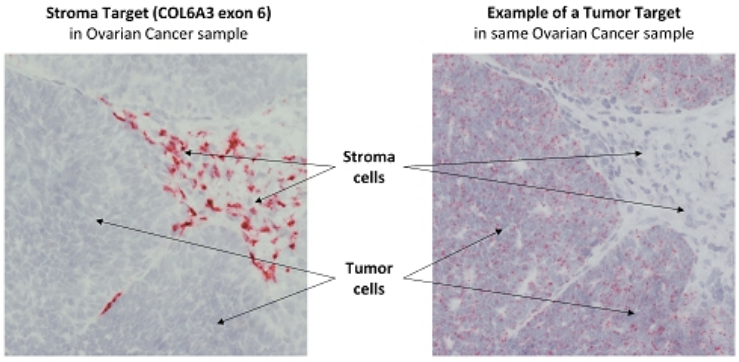
Pancreatic Carcinoma – 80%
Breast Carcinoma – 75%
Stomach Carcinoma – 65%
Sarcoma – 65%
Esophageal Carcinoma – 60%
Squamous NSCLC– 55%
Adeno NSCLC– 55%
HNSCC – 55%
Uterine Carcinosarcoma – 55%
Colorectal Carcinoma – 45%
Mesothelioma – 45%
Cholangiocarcinoma – 40%
Ovarian Carcinoma – 40%
Melanoma – 35%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

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

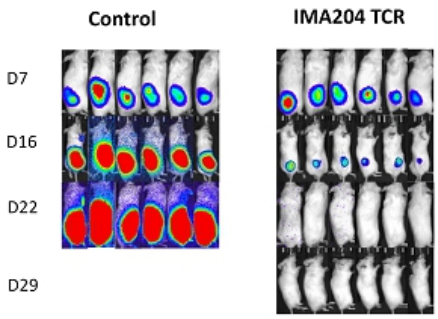
[1] Target density: peptide copy number per tumor cell, approximate range representing the majority of tumor samples analyzed; [2] Functional avidity: EC50 half maximal effective concentration; [3] Solid cancer indications with 20% or more target expression, Target prevalence for selected cancer indications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

ACTengine® IMA204 – High Affinity, CD8-independent TCR

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



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



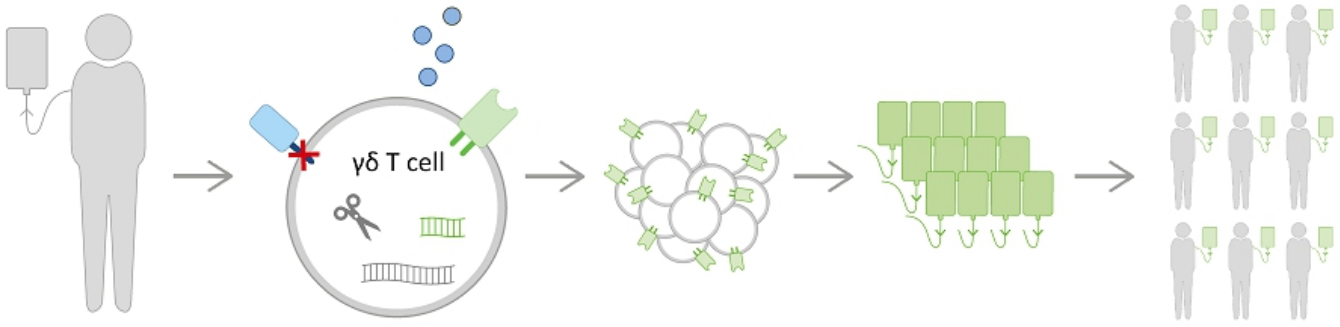
CD8-independent TCR leads to tumor eradication in all mice treated

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

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

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

ACTallo® – Immatics' Allogeneic Cell Therapy Approach



γδ T cell Collection from Healthy Donor

Cell Engineering (gene editing & armoring)

Expansion

Off-the-shelf Products

Patient Treatment

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

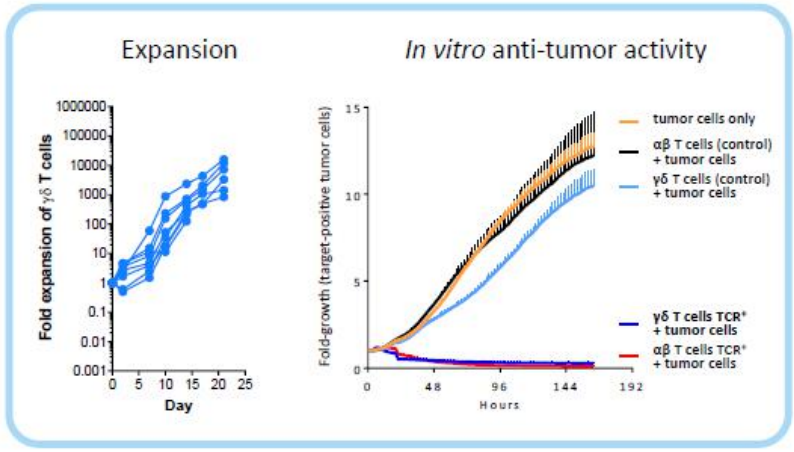
- Strategic collaborations combining Immatics' proprietary ACTallo® platform with Bristol Myers Squibb's next-gen technologies and Editas Medicine's CRISPR gene editing technology to develop next-gen allogeneic γδ TCR-T/CAR-T programs

Why γδ T cells?

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

γδ T cells

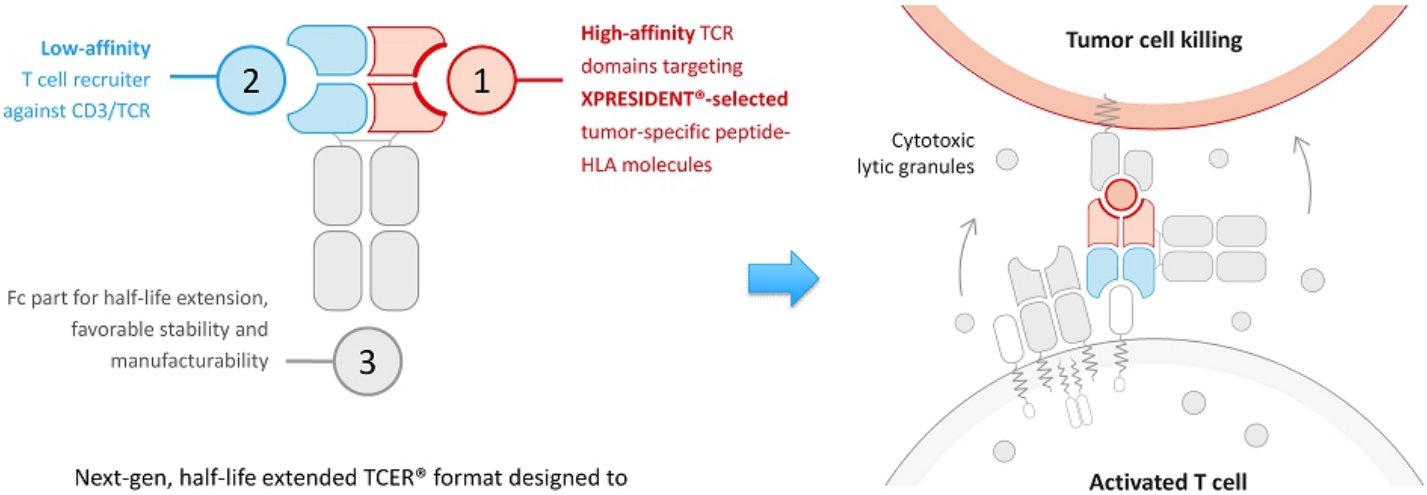
- ✓ are abundant in the peripheral blood
- ✓ show intrinsic anti-tumor activity
- ✓ naturally infiltrate solid tumors & correlate with favorable prognosis
- ✓ are HLA-independent, thus do not cause graft-vs-host disease in allogeneic setting
- ✓ can be expanded to high numbers in a cGMP-compatible manner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



TCER® – TCR Bispecifics

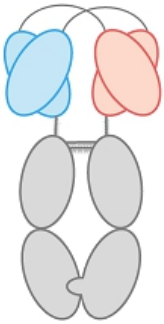
TCER® – Immatics' Next-generation, Half-Life Extended Bispecifics

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

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



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)[1]
- ✓ **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**[2]
- ✓ **Superior anti-tumor activity** in mouse models as compared to widely used CD3 recruiters

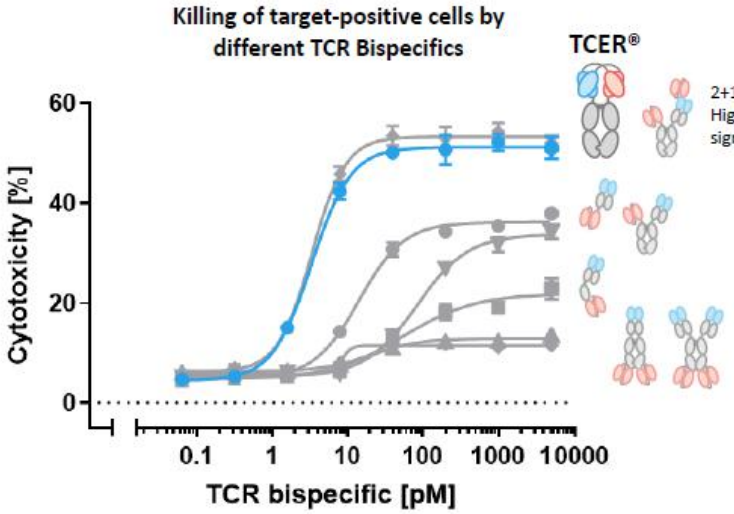
3 **Next-generation TCER® format**

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

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

[1] As compared to natural TCR; [2] Based on literature data for other low-affinity recruiters (e.g. Harber *et al.*, 2021, Nature; Trinklein *et al.*, 2019, mAbs); [3] Production in mammalian cells (CHO cells); [4] Based on preclinical testing

Potency of Our Proprietary TCR Bispecific Format TCER®



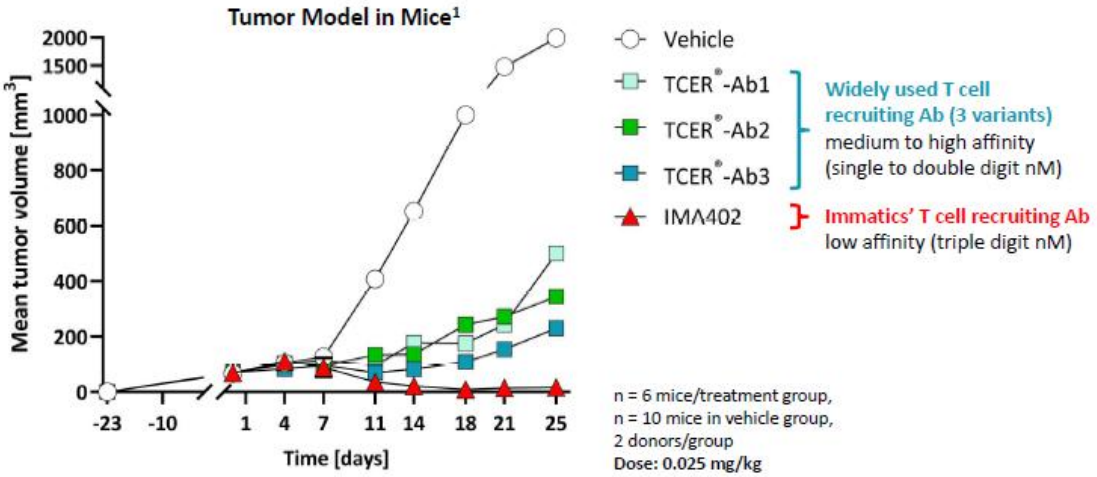
- Seven different TCR Bispecific formats were evaluated with a pHLA targeting TCR and the identical T cell recruiting antibody
- TCER® format had higher combination of potency and specificity[1] than six alternative TCR Bispecific format designs evaluated

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

[1] Preclinical data on specificty not shown

TCER® Format Is Designed for Optimized Efficacy and Safety

Superior Tumor Control Using a Novel, Low-Affinity Recruiter

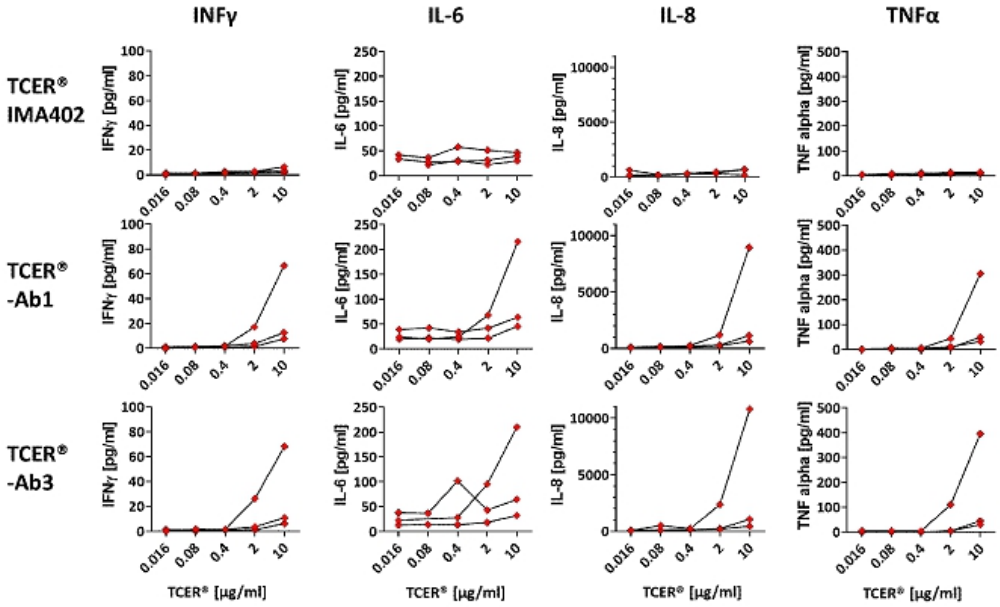


Proprietary, **low-affinity T cell recruiting region** demonstrates superior tumor control compared to analogous TCER® molecules designed with higher-affinity variants of a widely used recruiter

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

TCER® Format Is Designed for Optimized Efficacy and Safety

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



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

Our TCER® Portfolio

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

IMA401 (Bristol Myers Squibb)
- MAGEA4/8 peptide presented by HLA-A*02:01
- Start of clinical trial in May 2022, **dose escalation ongoing**

IMA402
- PRAME peptide presented by HLA-A*02:01
- Start of clinical trial planned for 2023

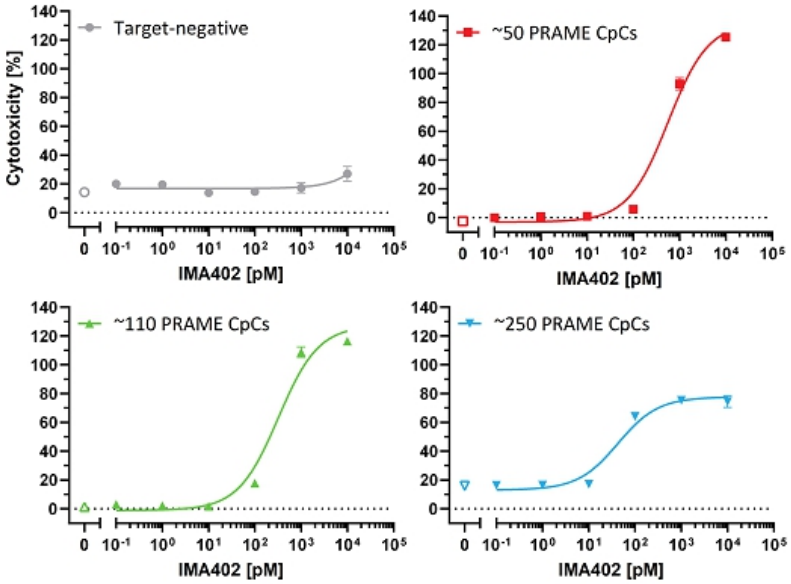
IMA403
- Undisclosed peptide presented by HLA-A*02:01
- Preclinical PoC studies ongoing

IMA40x
Several innovative programs
- Undisclosed peptides presented by HLA-A*02:01 and other HLA-types
- TCER® engineering and preclinical testing ongoing

Potential for addressing different indications and large patient populations with novel, off-the-shelf TCR Bispecifics

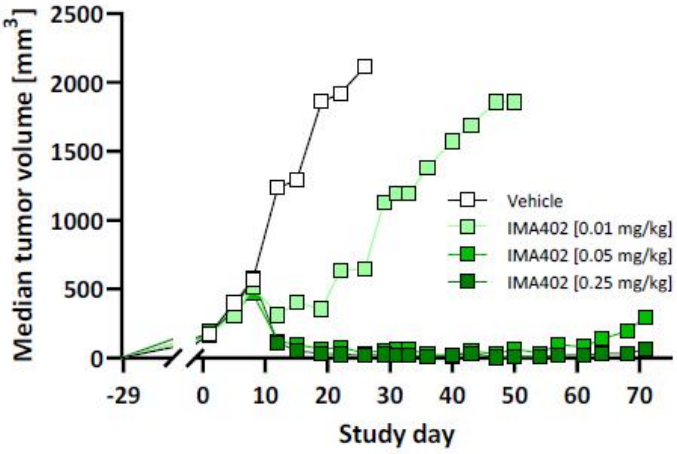
TCER® IMA402 Targeting PRAME – Efficacy Assessment *in vitro*

Tumor Cell Killing at Low Physiological PRAME Peptide Levels



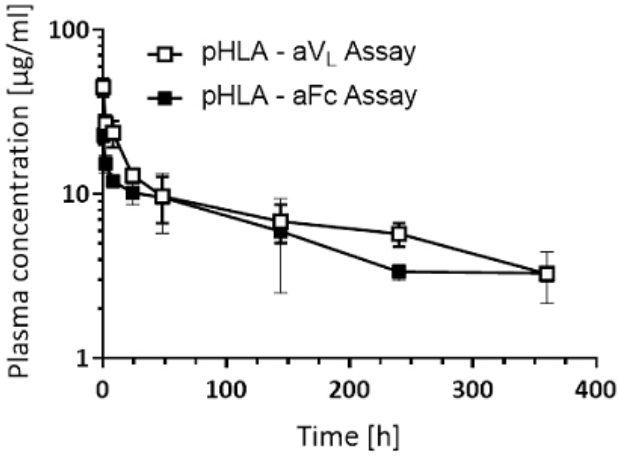
- TCER® IMA402 induces killing of tumor cells with PRAME target copies as low as 50 CpCs
- Physiological PRAME levels detected in majority of cancer tissues from patients are 100 – 1000 CpCs
- Preclinical activity profile enables targeting of a broad variety of tumor indications, such as lung cancer,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

TCER® IMA402 Achieves Durable Tumor Control of Large Tumors *in vivo*

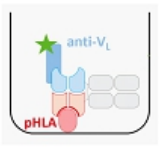


- Dose-dependent efficacy of IMA402 in cell line-derived *in vivo* mouse model
- Durable shrinkage of large tumors including complete responses over prolonged period
- Sufficiently high drug doses are key to achieving desired anti-tumor effect

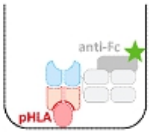
Half-life Extended Format of IMA402 Confers Terminal Half-life of >1 Week



pHLA – aV$_L$ 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

Advancing TCER® IMA402 Towards Clinical Development

Recent and Upcoming Activities

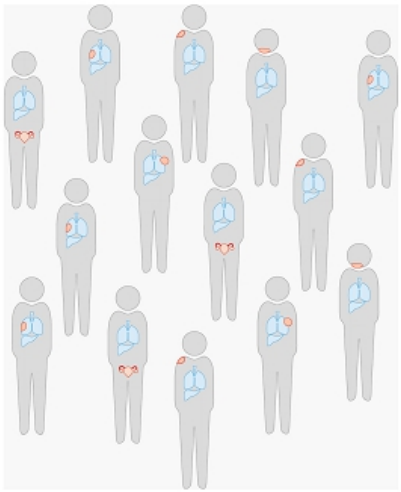
Recent activities

- ✓ Completion of IND-enabling data package
- ✓ Manufacturing of GMP batch completed with high titer (>3.5 g/L) and high yield
- ✓ Scientific advice with regulatory authorities

Upcoming activities

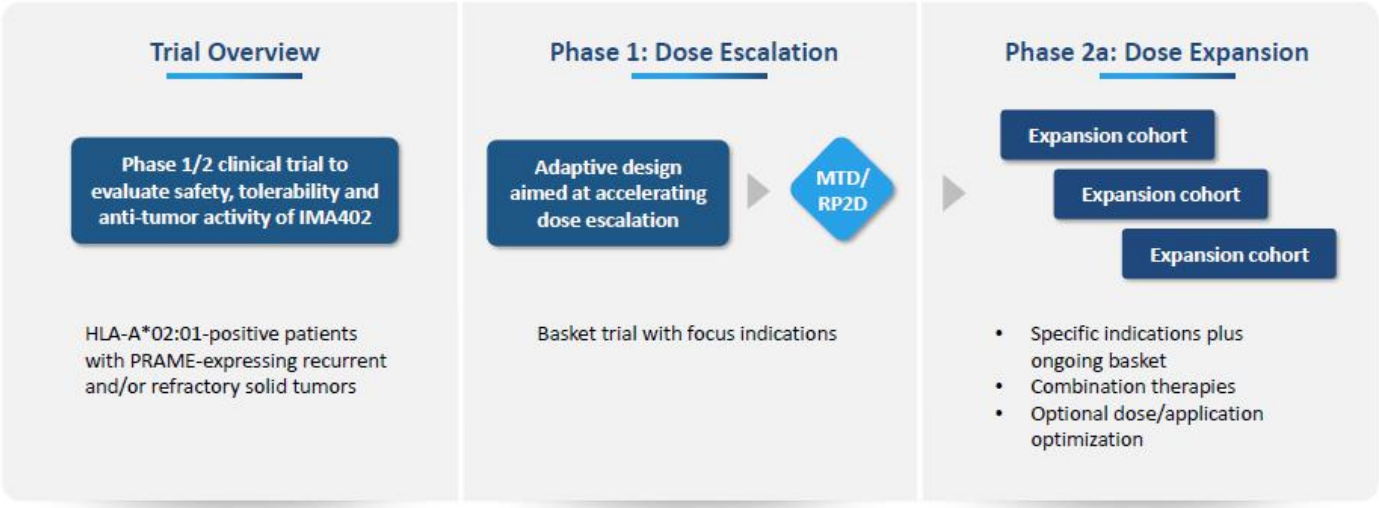
- CTA[1] submission planned for 2Q 2023
- Start of patient treatment planned for 2H 2023

IMA402 TCER® Ph1/2 clinical trial in patients with solid tumors



[1] Clinical Trial Application (CTA) is the European equivalent of an Investigational New Drug (IND) application

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



Accelerated Development of TCER® IMA402

TCER® IMA402 Phase 1/2 Clinical Trial Design

1 Optimized patient selection to leverage the broad PRAME potential

Assuring sufficient PRAME target expression using our IMADetect® qRT-PCR assay (mass spectrometry-guided RNA threshold)

- No pretesting for indications with very high PRAME prevalence, e.g. melanoma, uterine & ovarian cancer, synovial sarcoma
- Prospective target testing for indications with PRAME prevalence <80%, e.g. lung cancer, breast cancer, head and neck cancer

2 Flexible trial design for fast clinical execution

- Adaptive design with flexible dose cohorts, initially only 1-3 patients per dose level, optimized MABEL approach with elevated starting dose, short DLT period of 2 weeks
- Basket trial in focus indications for accelerated signal finding, multiple options for expansion cohorts
- Extension from phase 1/2 to pivotal possible

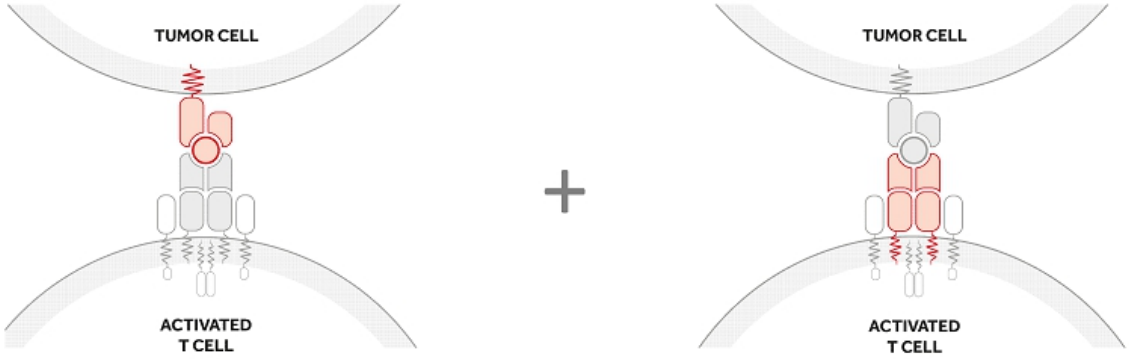
3 Targeting enhanced treatment convenience

- Initially weekly i.v. infusions, potential for early optimization of scheduling based on half-life extended TCER® format
- Exploring s.c. application

Immatics' Proprietary Target and TCR Discovery Platforms

True Cancer Targets & Matching Right TCRs

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



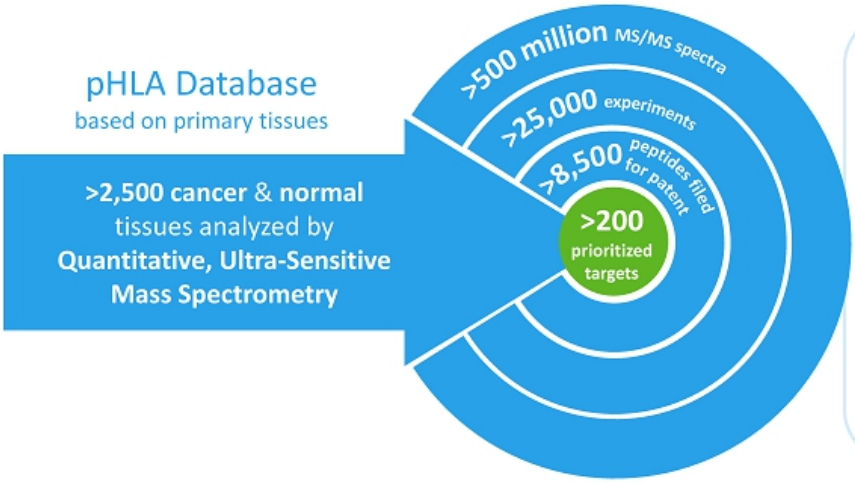
True Targets via XPRESIDENT® technology platform

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

Right TCRs via XCEPTOR® technology platform

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

Pool of 200 Prioritized Targets as Foundation for Future Value Generation



200 Prioritized Targets

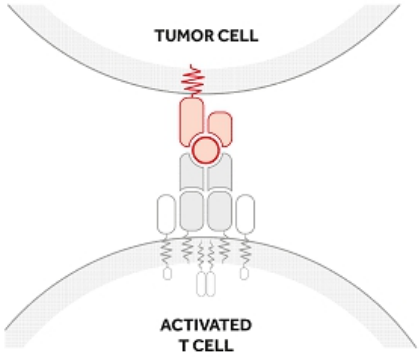
Grouped in 3 Target Classes:

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

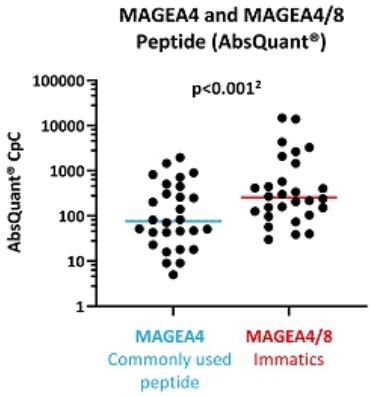
~50% of our prioritized targets are non-HLA-A*02 restricted, substantially broadening the potential patient reach

Immatics' Unique Capability – Identification of the most Relevant Target

Example of MAGEA4/8 Peptide Target



Ranking of pHLA targets



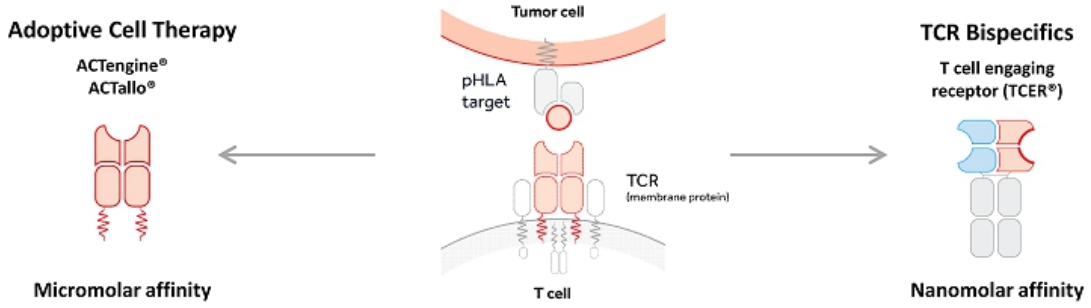
XPRESIDENT® quantitative information on target density[1] between peptides originating from the same source protein

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

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

Development of the Right TCR – XCEPTOR® Technology

TCR Discovery and Engineering for ACT and TCR Bispecifics

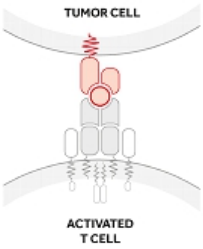
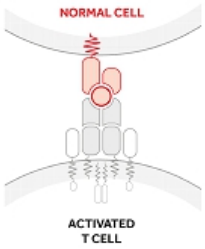
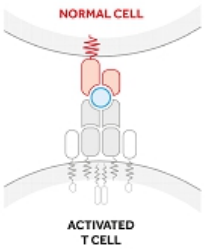


- Fast, efficient and highly sensitive discovery of highly specific, natural TCRs
- Protein engineering capabilities to design and maturate TCRs with increased affinity while retaining specificity
- Early de-selection of cross-reactive TCRs by the unique interplay between Immatics' target and TCR discovery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

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

Optimal Target Selection & TCR Specificity for Minimizing Safety Risks

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

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

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

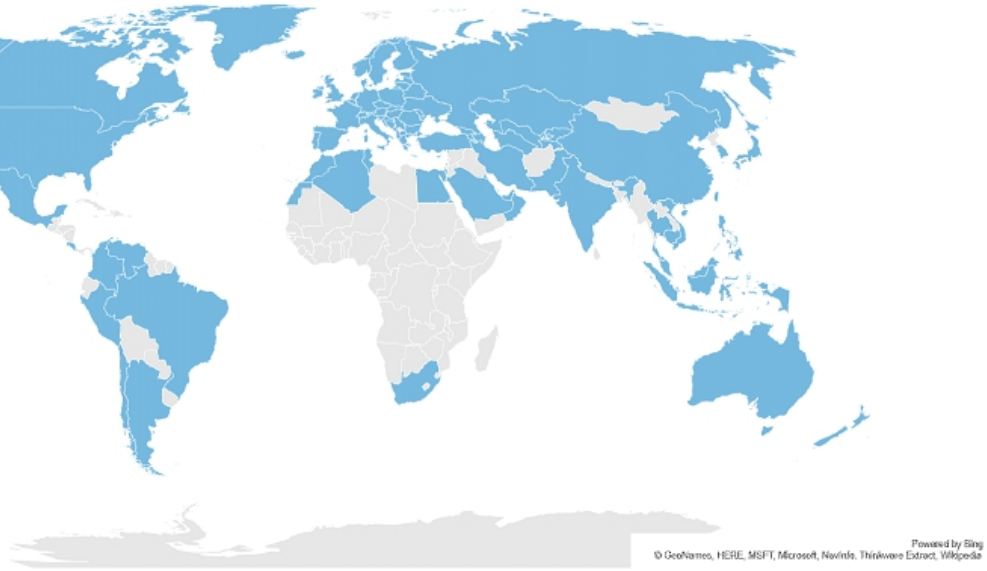
[1] Clinical fatalities have occurred in TCR-T trials using a titin cross-reactive TCR (Cameron *et al.*, Sci Transl Med)

Robust IP Portfolio

Immatics' Patent Estate – Territorial Coverage

Cancer targets, TCRs and technology protected by:

- **5,800 applications and patents filed in all major countries and regions**
- **>115 patent families**
- **>2,400 granted patents, thereof >550 granted patents in the US**



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

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

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

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

Strong, Focused and Highly Integrated Trans-Atlantic Organization

Delivering

THE POWER OF T CELLS TO CANCER PATIENTS

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