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 23, 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 March 23, 2022, Immatics N.V. (the "Company") issued a press release announcing its full year 2021 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 presentations. The information contained in the presentation is being provided as of March 23, 2022 and the Company does not undertake any obligation to update the presentation in the future or to update forward-looking statements to reflect subsequent actual results.

EXHIBIT INDEX

Exhibit No.	**Description**
99.1	Press release dated March 23, 2022
99.2	Corporate presentation dated March 2022

SIGNATURES

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

Date: March 23, 2022

IMMATICS N.V.

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

PRESS RELEASE

Immatics Announces Full Year 2021 Financial Results and Corporate Update

- **IMA203 TCR-T candidate targeting PRAME demonstrated a 50% objective response rate across different solid tumor types in an interim update of Phase 1a dose escalation**
- **Multiple IMA203 Phase 1b expansion cohorts being initiated in Q2 2022 including monotherapy at target dose level, checkpoint combination therapy, and 2nd-generation approach IMA203CD8**
- **Immatics entered a global licensing agreement with Bristol Myers Squibb to collaborate on clinical development of TCR Bispecific (TCER®) IMA401 targeting MAGEA4/A8; agreement includes $150million upfront payment, up to $770 million in milestone payments, tiered double-digit royalties and a co-promotion option in the U.S.**
- **TCER® IMA401 IND[1] approved by regulatory authorities in February 2022; initiation of patient treatment in the first half of 2022**
- **TCER® IMA402 targeting PRAME demonstrated preclinical proof-of-concept and initial steps towards GMP manufacturing have been initiated**
- **Nancy Valente appointed to Immatics' Board of Directors**
- **Cash and cash equivalents as well as Other financial assets amount to $164 million[2] (€145 million) as of December 31, 2021. Addition of upfront payment from the recent collaboration agreement with Bristol Myers Squibb received in February 2022 ensures cash runway into 2024**

Tuebingen, Germany and Houston, TX, March 23, 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 provided an update on its corporate progress and reported financial results for the quarter and full year ended December 31, 2021.

Harpreet Singh, Ph.D., CEO and Co-Founder of Immatics commented, "Over the course of 2021, Immatics has continued to deliver important milestones across both our clinical and preclinical portfolio. Our Phase 1a data presentation at SITC demonstrated high initial objective response rates in solid cancer patients treated with our ACTengine® IMA203 TCR-T candidate, and we have achieved preclinical proof-of-concept for our TCR Bispecific candidate, TCER® IMA402 – both targeting PRAME, a target frequently expressed on multiple solid cancers. We have also expanded our collaboration with Bristol Myers Squibb to jointly develop our TCER® IMA401 targeting MAGEA4 and MAGEA8 and we plan to initiate the first-in-man clinical trial of IMA401 in the first half of 2022. Together with the company's strong cash position and further potential opportunities to create valuable partnerships based on our differentiated TCR-based platforms, we are very well positioned to deliver on all relevant upcoming value inflections points across our cell therapy and bispecifics portfolio."

[1] Clinical Trial Application (CTA) approved, the equivalent of an Investigational New Drug (IND) application in Europe
[2] All amounts translated using the exchange rate published by the European Central Bank in effect as of December 31, 2021 (1 EUR = 1.1326 USD)

Fourth Quarter 2021 and Subsequent Company Progress

Adoptive Cell Therapy Programs

- **ACTengine® IMA203 (PRAME)** - Immatics provided an interim update on its most advanced Phase 1a TCR-T trial with IMA203 targeting PRAME in a late-breaking oral presentation by Dr. Martin Wermke, coordinating investigator of the trial, at the 36th Annual Meeting of the Society for Immunotherapy of Cancer (SITC) in November 2021. Objective responses (confirmed and unconfirmed partial responses, RECIST 1.1) were observed in 8 out of 16 patients (50%), and 8 out of 13 patients (62%) who were treated at intermediate dose levels 2 and 3 in the dose escalation part of the trial. Objective responses were associated with tumor infiltration and peak T cell persistence in the blood. Treatment-emergent events were transient and manageable; no grade 3 or higher cytokine release syndrome or neurological toxicities were observed.

- Patient treatment in the Phase 1a study with IMA203 has been completed. Dose level 4 (up to 1.2 billion transduced T cells per m^2) has been determined as the provisional Recommended Phase 2 Dose (RP2D). The next data read-out for IMA203 monotherapy is planned for 2H 2022.

- Based on these interim results, Immatics is expanding the IMA203 study to three Phase 1b dose expansion cohorts, each designed to evaluate the observed objective response rate, demonstrate durability of response and provide the basis for entering registration trials. Cohorts include IMA203 as monotherapy in focus indications, IMA203 in combination with an immune checkpoint inhibitor and IMA203CD8, a 2nd generation monotherapy where IMA203 is co-transduced with a CD8 co-receptor, thereby inducing anti-tumor activity of both CD4 and CD8 T cells. These three Phase 1b IMA203 expansion cohorts are being initiated in Q2 2022. An initial data read-out for the IMA203/immune checkpoint inhibitor combination therapy cohort and the IMA203CD8 cohort is planned for YE2022.

- **ACTengine® IMA201 (MAGEA4/8)** and **IMA202 (MAGEA1)** – In November 2021, Immatics presented interim data on 12 heavily pre-treated patients that were treated with product candidates IMA201 and IMA202. 8 out of 12 patients (67%) showed disease control, and tumor shrinkage was observed in 6 patients (50%). All adverse events for IMA201 and IMA202 were transient and manageable with no dose-limiting toxicities observed. For IMA202, patient recruitment in the dose escalation part of the Phase 1 trial has been completed. For IMA201, dose escalation is ongoing.

- **ACTengine® IMA204 (COL6A3 exon 6)** – IMA204 is a first-in-class TCR-T directed against COL6A3 exon 6, a novel tumor stroma target highly expressed in several solid cancers. IMA204 utilizes a next-generation CD8-independent TCR with full functionality in both CD4 and CD8 T cells. IND-enabling studies are nearing completion. Submission of the IND application for IMA204 is expected by the end of 2022.

TCR Bispecifics Programs

- **TCER® IMA401 (MAGEA4/8)** – Immatics entered a global exclusive licensing deal with Bristol Myers Squibb for its most advanced TCER® product candidate, IMA401. The agreement included an upfront payment of $150 million as well as up to $770 million in additional milestone payments plus tiered double-digit royalties on net product sales, and includes the retention of the option to co-fund U.S. development in return for further enhanced U.S. royalties. Both companies will collaborate to advance the program through clinical development with Immatics retaining a co-promotion option in the U.S. In preclinical proof-of-concept studies, IMA401 demonstrated anti-tumor activity with complete remissions in different *in vivo* tumor models including patient-derived xenograft models. A clinical trial application (CTA, the equivalent of an IND in Europe) for the IMA401 program was filed in November 2021 with the Paul-Ehrlich-Institute, the relevant German regulatory authority and approved in February 2022. Start of the Phase 1 clinical trial is planned for the first half of 2022.

- **TCER® IMA402 (PRAME)** – Immatics presented data from its second TCER® program IMA402 at the 17th Annual PEGS Boston Protein Engineering and Cell Therapy Summit in May 2021 demonstrating preclinical proof-of-concept for the program. IMA402 showed *in vitro* anti-tumor activity and consistent tumor regression including complete responses in an *in vivo* tumor model. Continuation of GMP process development and IND-enabling activities for IMA402 is anticipated in 2022. Manufacturing of the clinical batch is targeted for the second half of 2022 and initiation of the Phase 1 trial is planned in 2023.

Corporate Developments

Board of Directors Update

- In March 2022, Nancy Valente, M.D., was appointed to the Immatics' Board of Directors and will be nominated for election at the Company's Annual General Meeting in June 2022. Nancy Valente brings to Immatics over 20 years of experience in oncology and hematology drug development. In her last position at Genentech/Roche, she was Senior Vice President, Oncology Product Development, where she helped to build a diverse portfolio of new oncology therapies encompassing small molecules, antibodies, bispecific antibodies and antibody drug conjugates including Gazyva®, Polivy®, Hemlibra® and Venclexta®, a first-to-market BCL-2 inhibitor. Additional information about Nancy Valente and the other members of Immatics' Board of Directors can be found on the Immatics website.

- In July 2021, Immatics adopted a one-tier structure for its Board of Directors. As part of this process, the company's CEO Harpreet Singh, Ph.D., joined the Board.

- In June 2021, Friedrich von Bohlen und Halbach, Ph.D., Managing Director of dievini Hopp BioTech Holding GmbH & Co. KG was elected to Immatics' Board of Directors. Dr. von Bohlen und Halbach replaced Christof Hettich, L.L.D., who stepped down from the Board of Directors after 15 years of valuable service to the company.

Full Year 2021 Financial Results

Cash Position: Cash and cash equivalents as well as other financial assets total €145.1 million ($164.3 million[2]) as of December 31, 2021 compared to €232.0 million ($262.7 million[2]) as of December 31, 2020. The decrease is mainly the result of financing of our ongoing research and development activities. This does not include $150 million cash received in February 2022 from the collaboration agreement signed with Bristol Myers Squibb in December 2021. Adding this upfront payment, the Company projects a cash runway into 2024.

Revenue: Total revenue, consisting of revenue from collaboration agreements, was €34.8 million ($39.4 million[2]) for the year ended December 31, 2021, compared to €31.3 million ($35.4 million[2]) for the year ended December 31, 2020.

Research and Development Expenses: R&D expenses were €87.6 million ($99.2 million[2]) for the year ended December 31, 2021, compared to €67.1 million ($76.0 million[2]) for the year ended December 31, 2020. The increase mainly resulted from higher costs associated with the advancement of the clinical and pre-IND pipeline of candidates.

General and Administrative Expenses: G&A expenses were €33.8 million ($38.3 million[2]) for the year ended December 31, 2021, compared to €34.2 million ($38.7 million[2]) for the year ended December 31, 2020.

Net Loss: Net loss was €93.3 million ($105.7 million[2]) for the year ended December 31, 2021, compared to €211.8 million ($239.9 million[2]) for the year ended December 31, 2020. The decrease mainly resulted from a one-time, non-cash expense in connection with the ARYA merger in 2020 of €152.8 million ($173.0 million[2]).

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.

Upcoming Investor Conferences

- Bank of America Healthcare Conference (in person) Las Vegas, NV – May 10-12, 2022
- Jefferies LLC Healthcare Conference (in-person) New York, NY – June 8-10, 2022
- Goldman Sachs Global Healthcare Conference, Rancho Palos Verdes, CA – June 14-16, 2022
- Jefferies LLC London Healthcare Conference, London, U.K. – November 15-17, 2022

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

[2] All amounts translated using the exchange rate published by the European Central Bank in effect as of December 31, 2021 (1 EUR = 1.1326 USD).

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 Financial Position of Immatics N.V.

	As of	
	December 31, 2021	December 31, 2020
	(Euros in thousands)	
Assets		
Current assets		
Cash and cash equivalents	132,994	207,530
Other financial assets	12,123	24,448
Accounts receivable	682	1,250
Other current assets	6,408	5,763
Total current assets	**152,207**	**238,991**
Non-current assets		
Property, plant and equipment	10,506	7,868
Intangible assets	1,315	914
Right-of-use assets	9,982	6,149
Other non-current assets	636	724
Total non-current assets	**22,439**	**15,655**
Total assets	**174,646**	**254,646**
Liabilities and shareholders' equity		
Current liabilities		
Provisions	51	51
Accounts payable	11,624	10,052
Deferred revenue	50,402	46,600
Other financial liabilities	27,859	16,869
Lease liabilities	2,711	1,881
Other current liabilities	2,501	2,025
Total current liabilities	**95,148**	**77,478**
Non-current liabilities		
Deferred revenue	48,225	85,475
Lease liabilities	7,142	4,306
Other non-current liabilities	68	—
Total non-current liabilities	**55,435**	**89,781**
Shareholders' equity		
Share capital	629	629
Share premium	565,192	538,695
Accumulated deficit	(537,813)	(444,478)
Other reserves	(3,945)	(7,459)
Total shareholders' equity	**24,063**	**87,387**
Total liabilities and shareholders' equity	**174,646**	**254,646**

Immatics N.V. and subsidiaries

Condensed Consolidated Statement of Loss of Immatics N.V.

	Year ended December 31,		
	2021	**2020**	**2019**
	(Euros in thousands, except share and per share data)		
Revenue from collaboration agreements	34,763	31,253	18,449
Research and development expenses	(87,574)	(67,085)	(40,091)
General and administrative expenses	(33,808)	(34,186)	(11,756)
Other income	332	303	385
Operating result	**(86,294)**	**(69,715)**	**(33,013)**
Financial income	5,675	2,949	790
Financial expenses	(1,726)	(10,063)	(264)
Change in fair value of warrant liabilities	(10,990)	17,775	—
Share listing expense	—	(152,787)	—
Financial result	**(7,041)**	**(142,126)**	**526**
Loss before taxes	**(93,335)**	**(211,841)**	**(32,487)**
Taxes on income	—	—	—
Net loss	**(93,335)**	**(211,841)**	**(32,487)**
Attributable to:			
Equity holders of the parent	(93,335)	(211,284)	(31,571)
Non-controlling interest	—	(557)	(916)
Net loss	**(93,335)**	**(211,841)**	**(32,487)**
Net loss per share - basic and diluted	**(1.48)**	**(4.40)**	**(0.95)**
Weighted average shares outstanding - basic and diluted	62,912,921	48,001,228	33,093,838

Immatics N.V. and subsidiaries

Condensed Consolidated Statement of Comprehensive Loss of Immatics N.V.

	Year ended December 31,		
	2021	2020	2019
	(Euros in thousands)		
Net Loss	**(93,335)**	**(211,841)**	**(32,487)**
Other comprehensive loss			
Items that may be reclassified subsequently to profit or loss, net of tax	—	—	—
Currency translation differences from foreign operations	3,514	(6,689)	(29)
Total comprehensive loss for the period	**(89,821)**	**(218,530)**	**(32,516)**
Attributable to:			
Equity holders of the parent	(89,821)	(217,973)	(31,600)
Non-controlling interest	—	(557)	(916)
Total comprehensive loss for the period	**(89,821)**	**(218,530)**	**(32,516)**

Immatics N.V. and subsidiaries

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

	Year ended December 31,		
	2021	2020	2019
	(Euros in thousands)		
Cash flows from operating activities			
Loss before taxation	**(93,335)**	**(211,841)**	**(32,487)**
Adjustments for:			
Interest income	(133)	(850)	(790)
Depreciation and amortization	5,260	4,424	3,858
Interest expense	566	289	170
Share listing expense	—	152,787	—
Equity settled share-based payment	26,403	22,908	152
MD Anderson compensation expense	—	45	700
(Decrease) Increase in other liabilities resulting from share appreciation rights	—	(2,036)	1,864
Payment related to share-based compensation awards previously classified as equity-settled	—	(4,322)	—
Net foreign exchange differences	554	(4,477)	3
Change in fair value of warrant liabilities	10,990	(17,775)	—
Changes in working capital			
Decrease (increase) in accounts receivable	569	(294)	(563)
(Increase) in other assets	(483)	(1,600)	(1,497)
(Decrease) increase in accounts payable and other current liabilities	(31,784)	(23,387)	98,937
Interest received	175	808	790
Interest paid	(566)	(289)	(170)
Net cash used in operating activities	**(81,784)**	**(85,610)**	**70,967**
Cash flows from investing activities			
Payments for property, plant and equipment	(5,106)	(7,420)	(2,143)
Cash paid for investments in Other financial assets	(11,298)	(58,087)	(77,810)
Cash received from maturity of investments classified in Other financial assets	24,448	49,662	74,888
Payments for intangible assets	(551)	(104)	(91)
Proceeds from disposal of property, plant and equipment	—	—	97
Net cash (used in)/provided by investing activities	**7,493**	**(15,949)**	**(5,059)**
Cash flows from financing activities			
Proceeds from issuance of shares to equity holders of the parent	94	217,918	—
Transaction cost deducted from equity	—	(7,939)	—
Payments for leases	(2,707)	(2,096)	(1,862)
Net cash used in financing activities	**(2,613)**	**207,883**	**(1,862)**
Net increase in cash and cash equivalents	**(76,904)**	**106,324**	**64,046**
Cash and cash equivalents at beginning of period	**207,530**	**103,353**	**39,367**
Effects of exchange rate changes on cash and cash equivalents	2,368	(2,147)	(60)
Cash and cash equivalents at end of period	**132,994**	**207,530**	**103,353**

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)ccc attributable to shareholders of the parent	Non-controlling interest	Total share-holders' equity (deficit)
Balance as of January 1, 2019	**1,164**	**190,793**	**(201,623)**	**(741)**	**(10,407)**	**1,236**	**(9,171)**
Other comprehensive loss	—	—	—	(29)	(29)	—	(29)
Net loss	—	—	(31,571)	—	(31,571)	(916)	(32,487)
Comprehensive loss for the year	**—**	**—**	**(31,571)**	**(29)**	**(31,600)**	**(916)**	**(32,516)**
Equity-settled tandem awards	—	152	—	—	**152**	—	**152**
MD Anderson compensation expense	—	—	—	—	—	700	700
Balance as of December 31, 2019	**1,164**	**190,945**	**(233,194)**	**(770)**	**(41,855)**	**1,020**	**(40,835)**
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
Payment 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 income/(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**

Immatics Corporate Presentation

March 23, 2022

Forward-Looking Statements

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

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

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

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

Building a Leading TCR Therapeutics Company

Comprehensive TCR Approach

Building a TCR-T Cell Therapy and TCR Bispecifics Pipeline

Clinical PoC for Cell Therapy

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

Differentiated Approach

Unique technologies to identify true cancer targets and right TCRs

Strategic Partnerships

World-leading industry players with synergistic expertise

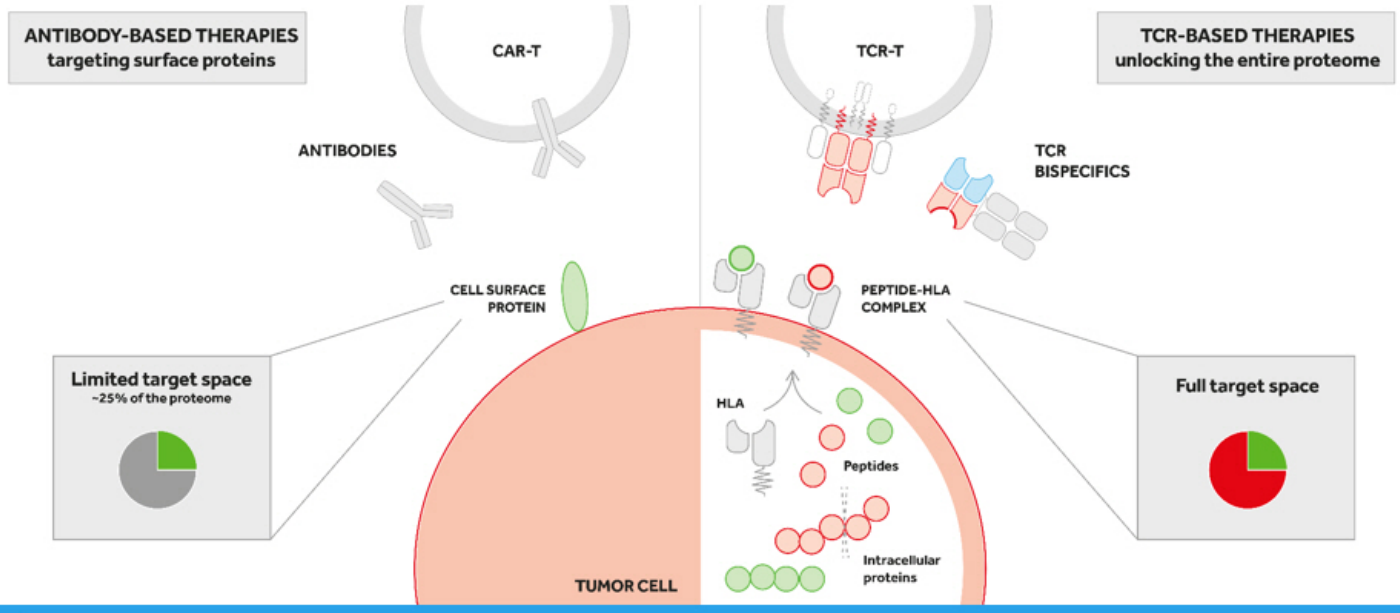
Therapeutic Opportunity

Addressing relevant patient populations across multiple solid cancer indications

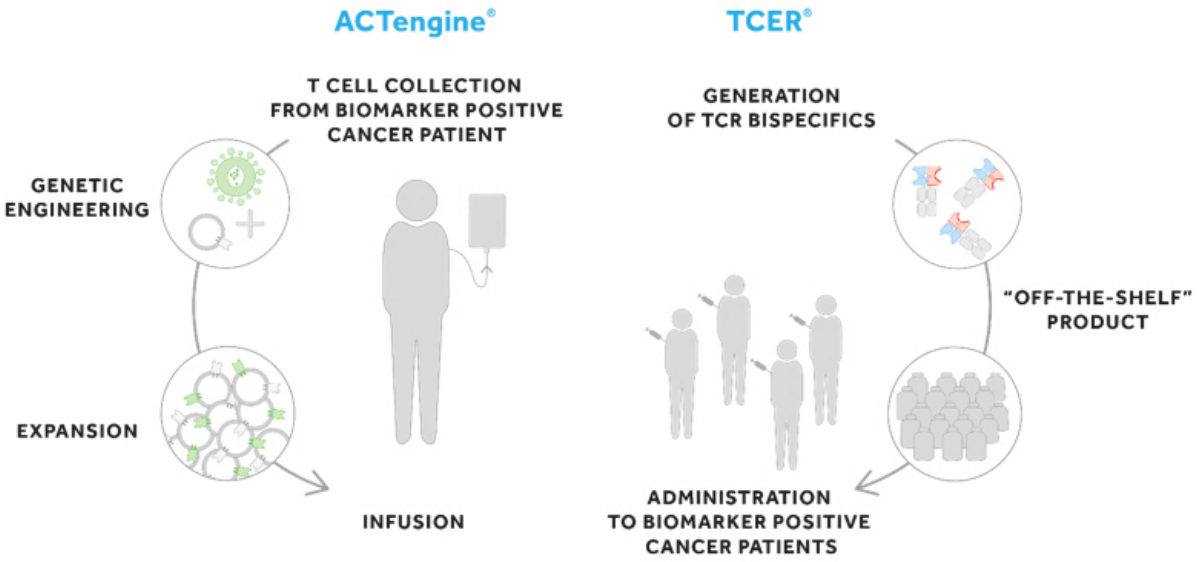
Solid Cash Runway

To reach next value inflections points across our portfolio

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

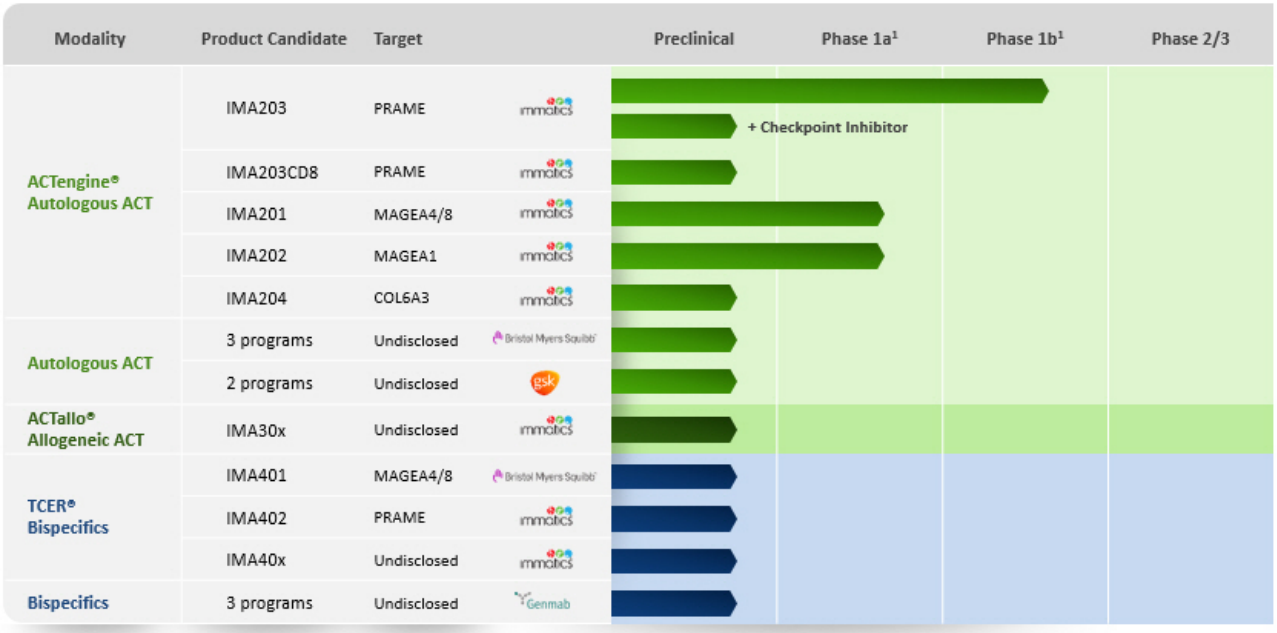


Two TCR-based Therapeutic Modalities



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

Our Pipeline of TCR-based Adoptive Cell Therapies and Bispecifics



[1] Phase 1a: Dose escalation, Phase 1b: Dose expansion

Maximizing Asset Potential through Strategic Collaborations

Synergistic Expertise that Can Foster Transformative Innovations for ACT and Bispecifics

Broadening the clinical framework beyond our proprietary pipeline

Addressing Relevant Patient Populations across Multiple Solid Cancers

	IMA201 / IMA401	IMA202	IMA203 / IMA402	IMA204
	MAGEA4/8	**MAGEA1**	**PRAME**	**COL6A3 exon 6**
Selected solid cancer indications with significant target prevalence[1]	Sarcoma Subtypes – up to 80% Squamous NSCLC – 50% HNSCC – 35% Bladder Carcinoma – 30% Esophageal Carcinoma – 25% Uterine Carcinosarcoma – 25% Ovarian Carcinoma – 20% Melanoma – 20%	HCC– 40% Squamous NSCLC – 35% Sarcoma Subtypes – up to 30% Melanoma – 30% Bladder Carcinoma – 20% Esophageal Carcinoma – 20%	Uterine Carcinoma – 100% Sarcoma Subtypes – up to 100% Melanoma – 95% Uveal Melanoma – 80%[2] Ovarian Carcinoma – 80% Squamous NSCLC – 65% Kidney Carcinoma – up to 45% Cholangiocarcinoma – 35% Adeno NSCLC – 25% Breast Carcinoma– 25% HNSCC – 25% Esophageal Carcinoma – 20% HCC – 20% Bladder Carcinoma – 20%	Pancreatic Carcinoma – 80% Breast Carcinoma – 75% Stomach Carcinoma – 65% Sarcoma – 65% Esophageal Carcinoma – 60% Squamous NSCLC– 55% Adeno NSCLC– 55% HNSCC – 55% Uterine Carcinosarcoma – 55% Colorectal Carcinoma – 45% Mesothelioma – 45% Cholangiocarcinoma – 40% Ovarian Carcinoma – 40% Melanoma – 35% Bladder Carcinoma – 35%

IMA200 & IMA400 programs demonstrate relevant expression in multiple solid cancers

[1] Solid cancer indications with 20% or more target expression, Target prevalence for selected cancer indications based on mRNA expression (TCGA and Immatics inhouse data);
[2] Based on metastatic uveal melanoma patients screened in IMA203 study (N=12)

ACTengine® IMA203 – TCR-T Targeting PRAME

ACTengine® IMA203 – TCR-T Targeting PRAME

Broadly Expressed Target on Multiple Solid Cancers Combined with Highly Specific TCR

TARGET

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

Naturally and specifically presented on tumors at high target density[1]: **100-1,000 copies/cell**

Identified and validated by XPRESIDENT® quant. mass spectrometry platform

TCR

High-affinity, specific TCR targeting PRAME

Pairing-enhanced, engineered TCR to avoid mispairing

High functional avidity[2]: **EC50 ~5 ng/ml**

Identified and characterized by XCEPTOR® TCR discovery and engineering platform

CLINICAL DATA

N=18 pts treated in phase 1 dose escalation cohort

Manageable tolerability profile; no additional DLTs[3] & no CRS/ICANS ≥ grade 3

16 patients with at least one post treatment tumor assessment

Objective responses in 50% (8/16) of patients, thereof 62% (8/13) of responses above DL1; all doses still below 1 bn cells

PATIENT POPULATION[4]

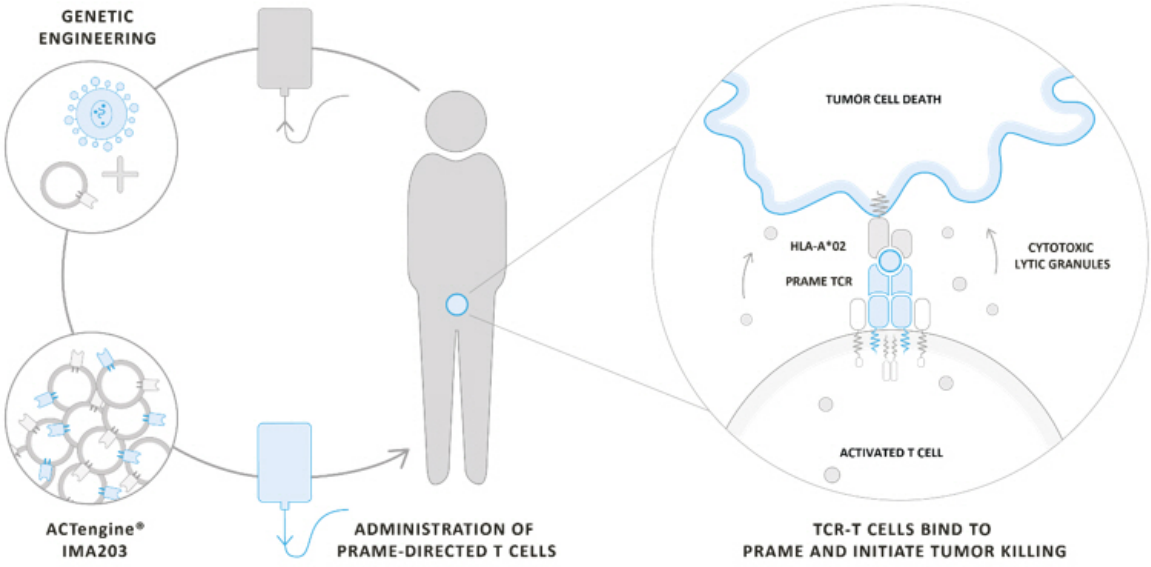
Uterine Carcinoma – 100%
Sarcoma Subtypes – up to 100%
Melanoma – 95%
Uveal Melanoma – 80%[5]
Ovarian Carcinoma – 80%
Squamous NSCLC – 65%
Kidney Carcinoma – up to 45%
Cholangiocarcinoma – 35%
Adeno NSCLC – 25%
Breast Carcinoma– 25%
HNSCC – 25%
Esophageal Carcinoma – 20%
HCC – 20%
Bladder Carcinoma – 20%

Data cut-off – 05-Oct-2021

[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] One DLT in DL2 previously reported in March 2021, fully resolved; [4] Solid cancer indications with 20% or more target expression, Target prevalence for selected cancer indications based on mRNA expression (TCGA and Immatics inhouse data); [5] Based on metastatic uveal melanoma patients screened in IMA203 study (N=12)

ACTengine® IMA203 Targeting PRAME – Mechanism of Action

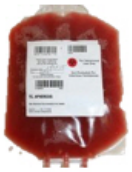
Immatics' Leading TCR-T Approach



Optimized Cell Therapy Products to Enhance T cell Persistence & Efficacy

Current Proprietary Manufacturing Protocol for ACTengine® Product Candidates

Leukapheresis



ACTengine® IMA200 programs: ~3 weeks

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

Commercial ACTengine® expected ~2 weeks

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

Infusion-Ready

Proprietary Manufacturing Process, designed to

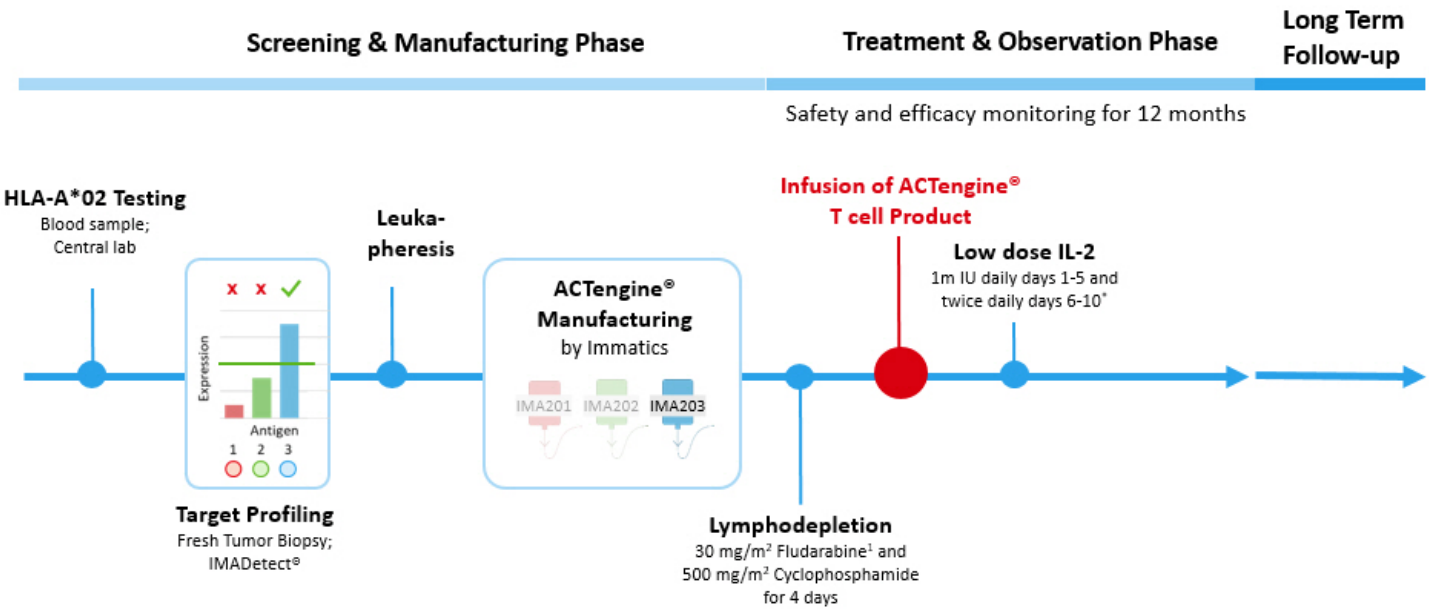
- ✓ reduce manufacturing process to approx. 1 week
- ✓ shorten vein-to-vein time
- ✓ generate younger T cells with increased proliferative capacity
- ✓ improve engraftment and persistence in patients while utilizing smaller doses

In-house state-of-the-art cGMP Facility[1]

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

[1] Exclusive access through collaboration with UT Health, Houston, TX

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

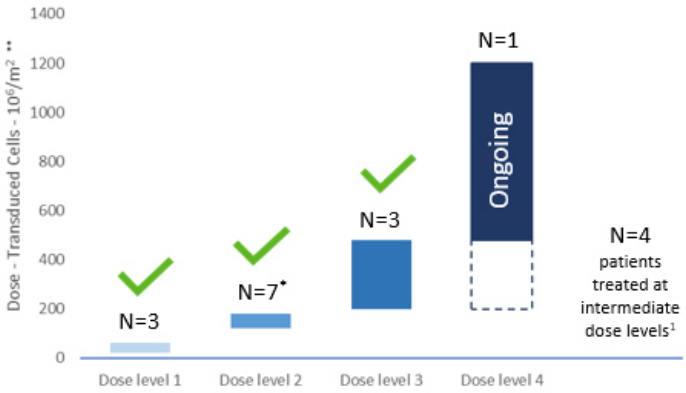
ACTengine® IMA203 – Key Objectives & Trial Design

Presented at SITC Conference as Late-Breaking Presentation (Cut-off October 05, 2021)

Key Study Objectives

- **Primary: Safety**
  Investigation of Adverse Events,
  Determination of a recommended Phase 2 dose
- **Secondary: Biological and Clinical Activity**
  T cell engraftment and persistence
  Objective responses as per RECIST1.1
  Duration of response
- **Exploratory**
  Tumor Infiltration

Trial Design & Recruitment Status



18 patients[1] infused with PRAME-directed T cells at 5 clinical sites

Data cut-off – 05-Oct-2021

[1] Enrichment cohorts EC1 & EC2: patients infused with intermediate doses enabling infusion of patients with medical need during dose escalation observation periods, or in case of lower production yields; * One patient infused at the same dose level as part of the enrichment cohort; **Dose is shown as transduced viable CD8 T cells per m^2 total body surface area

ACTengine® IMA203 – Safety Profile

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

TEAEs by maximum severity (N=19)[1]

Adverse event	All grades No.	All grades %	≥ Grade 3 No.	≥ Grade 3 %
Patients with any adverse event	19	100.0	19	100.0
Adverse Events of Special interest				
Cytokine release syndrome	17	89.5	0	0.0
ICANS[2]	4	21.1	0	0.0
Blood and lymphatic system disorders				
Neutropenia*	16	84.2	15	78.9
Anaemia	16	84.2	9	47.4
Thrombocytopenia	15	78.9	7	36.8
Lymphopenia*	14	73.7	14	73.7
Leukopenia*	12	63.2	11	57.9
Cytopenia	1	5.3	1	5.3
Infections and infestations				
Enterococcal infection	1	5.3	1	5.3
COVID-19	1	5.3	1	5.3
Appendicitis	1	5.3	1	5.3
Sepsis[3]	1	5.3	1	5.3
Respiratory, thoracic and mediastinal disorders				
Hypoxia	2	10.5	1	5.3
Pleural effusion	2	10.5	1	5.3
Bronchial obstruction	1	5.3	1	5.3
Metabolism and nutrition disorders				
Hyponatraemia	7	36.8	1	5.3
Hypokalaemia	5	26.3	1	5.3
Decreased appetite	3	15.8	0	0.0

Adverse event	All grades No.	All grades %	≥ Grade 3 No.	≥ Grade 3 %
table continued…				
Cardiac or vascular disorders				
Hypertension	3	15.8	2	10.5
Atrial fibrillation	2	10.5	1[4]	5.3
General disorders and administration site conditions				
Fatigue	7	36.8	1	5.3
Pyrexia	5	26.3	0	0.0
Oedema peripheral	3	15.8	0	0.0
Gastrointestinal disorders				
Nausea	12	63.2	0	0.0
Vomiting	7	36.8	0	0.0
Diarrhoea	7	36.8	0	0.0
Constipation	6	31.6	0	0.0
Investigations				
Aspartate aminotransferase increased	5	26.3	0	0.0
Alanine aminotransferase increased	4	21.1	0	0.0
Blood creatinine increased	4	21.1	0	0.0
Other				
Rash	5	26.3	0	0.0
Myalgia	4	21.1	0	0.0
Arthralgia	3	15.8	0	0.0
Alopecia	3	15.8	0	0.0
Rash maculo-papular	2	10.5	1	5.3
Orchitis	1	5.3	1	5.3
Contrast media allergy	1	5.3	1	5.3

CRS/ICANS: No ≥ Grade 3 CRS or ICANS observed so far

Most Adverse Events were associated with lymphodepletion

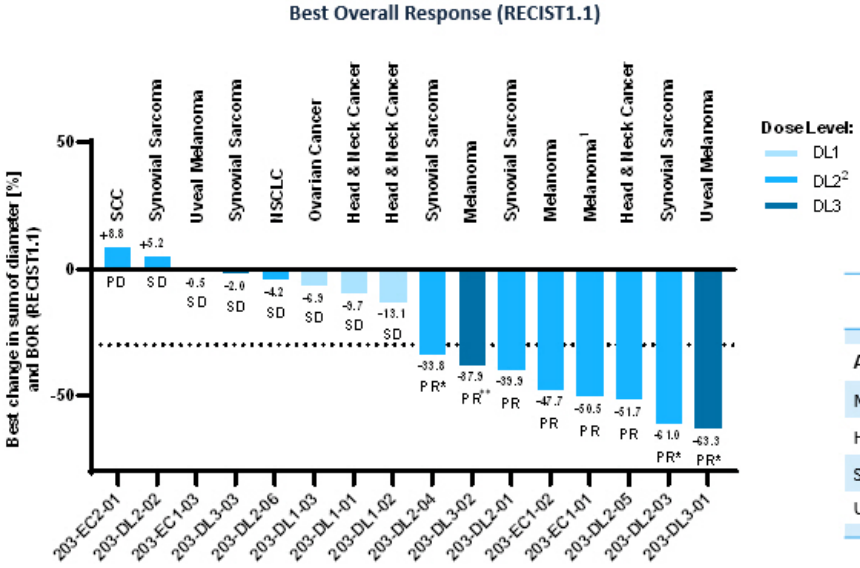
DLT: Transient, Grade 3 atrial fibrillation Onset on day 5 post infusion that resolved within 48h DLT triggered expansion of DL2

[1] All treatment-emergent adverse events (TEAEs) with grade 1-2 occurring in at least 3 patients (incidence ≥15.8%) and additionally all events with grade 3-5 regardless of relatedness to study treatment are presented. Data source: clinical database. Adverse events were coded using the Medical Dictionary for Regulatory Activities. Grades were determined according to National Cancer Institute Common Terminology Criteria of Adverse Events (CTCAE), version 5.0. Grades for Cytokine release syndrome and ICANS were determined according to CARTOX criteria (Neelapu *et al.*, 2018). Patients are counted only once per adverse event and severity classification; [2] ICANS: Immune effector cell-associated neurotoxicity syndrome; [3] Patient died from sepsis of unknown origin and did not receive IMA203 T cells; [4] DLT: Dose limiting toxicity; *100% of patients experienced transient cytopenias ≥ Grade 3 (CTCAE v5.0)

Data cut-off – 05-Oct-2021

ACTengine® IMA203 – Change in Target Lesions

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



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

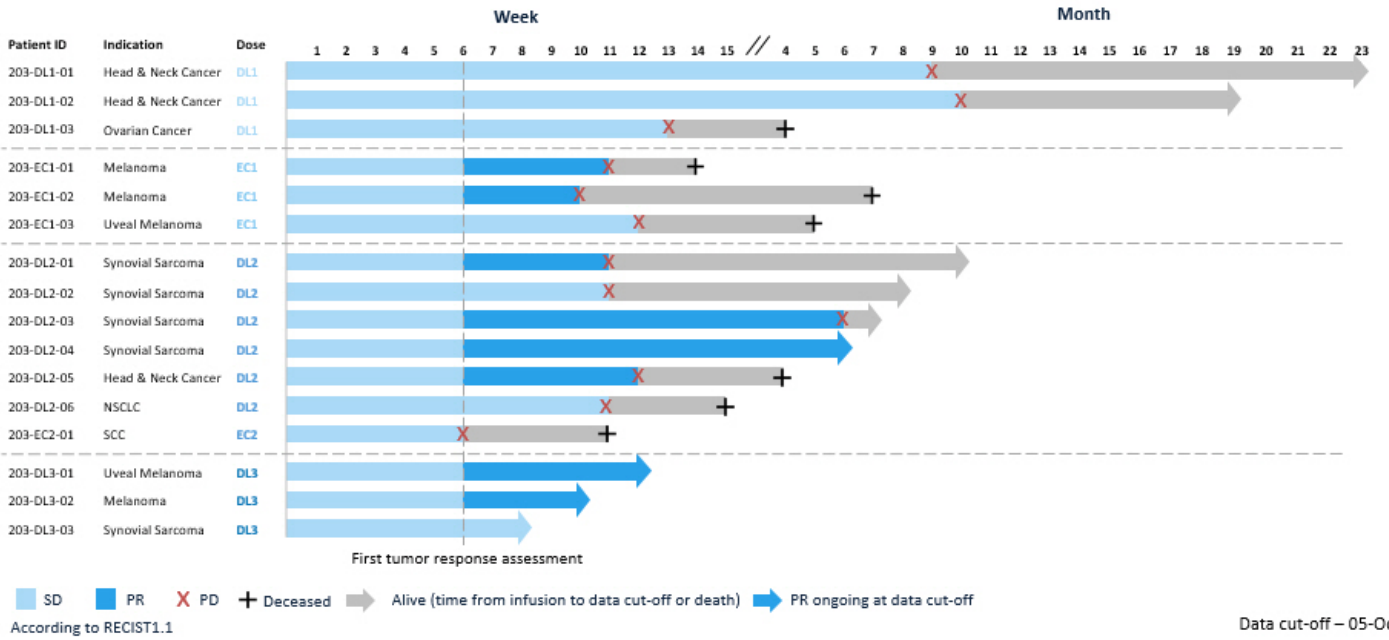
	All doses	Dosed above DL1
All comers	**8/16 (50%)**	**8/13 (62%)**
Melanoma	3/3 (100%)	3/3 (100%)
Head & Neck Cancer	1/3 (33%)	1/1 (100%)
Synovial Sarcoma	3/5 (60%)	3/5 (60%)
Uveal Melanoma	1/2 (50%)	1/2 (50%)

Data cut-off – 05-Oct-2021

[1] RECIST1.1 response at the timepoint of maximum change of target lesions (week 12): PD due to new lesions (leptomeningeal disease) at week 12
[2] Patients dosed with DL2, EC1 and EC2; * Confirmed at subsequent scan; ** Confirmation pending as of data cut-off

ACTengine® IMA203 – Response Over Time

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



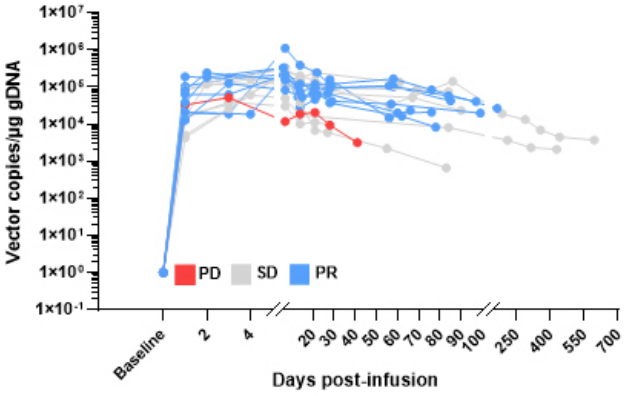
According to RECIST1.1

Data cut-off – 05-Oct-2021

ACTengine® IMA203 – Engraftment, Persistence & Tumor Infiltration

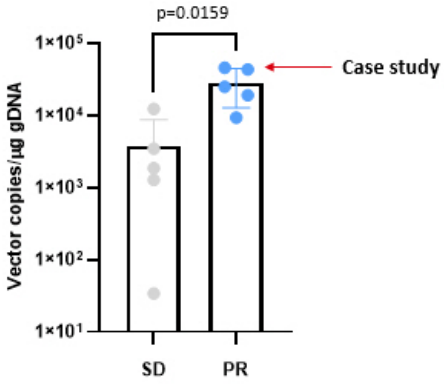
Clinical Responses Consistent with Biological Data

T cell Engraftment & Persistence



High T cell engraftment and persistence with trend for association of peak vector copies with clinical response[1]

Tumor Infiltration post Infusion[2]



High T cell infiltration observed through serial biopsies associated with clinical response[3]

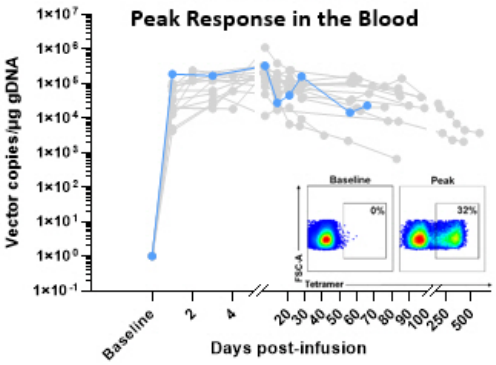
Data cut-off – 05-Oct-2021

[1] Mann-Whitney U test, p=0.065; [2] Post infusion biopsies at week 6 (except one patient with SD at week 3); [3] Mann-Whitney U test, p=0.0159

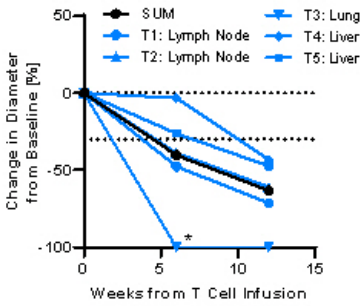
ACTengine® IMA203 – Case Study Patient IMA203-DL3-01

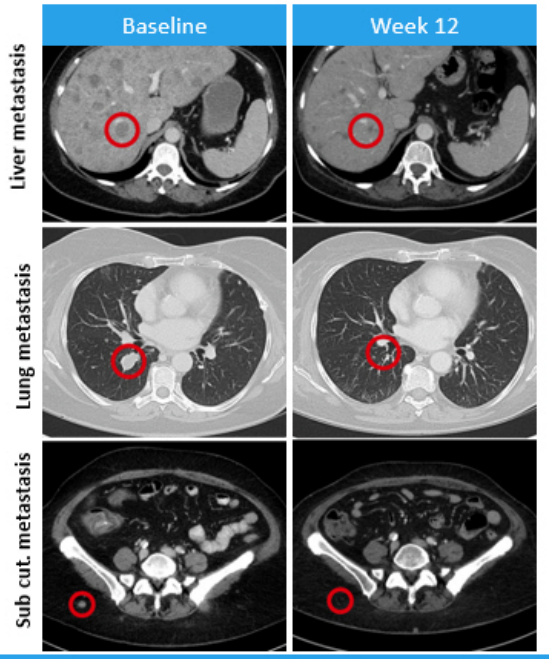
Confirmed Partial Response with Deepening Tumor Regression in Multiple Lesions

T cell Persistence & Peak Response in the Blood



Change in Target Lesions





- 62-year-old female; metastatic uveal melanoma
- High tumor burden in multiple organs
- Infused at refractory disease after failing 4 prior lines of therapy including 2 lines of CPI[1]
- Patient received total dose of 0.59 billion transduced T cells following lymphodepletion

- **T cell persistence until end of observation & detection in the tumor**
- **All lesions decreased at week 6 - 40% decrease in target lesions response deepened at week 12 to 63% decrease**
- **Best Response (RECIST1.1): PR (confirmed & ongoing)**

[1] Immune checkpoint inhibitor

ACTengine® IMA203 PRAME – Phase 1a Dose Escalation Interim Update

Preliminary Findings after Completion of Dose Level 3

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

SAFETY

3 Dose levels completed, all below 1 bn cells

0 Additional DLTs[1]

0 Grade ≥3 CRS or ICANS[2]

CLINICAL ACTIVITY

50% ORR[3] across all doses and multiple solid cancers (8/16 patients)

62% ORR[3] at DL2*& DL3 (8/13 patients) – all still dosed below 1 bn cells

BIOLOGICAL ACTIVITY

Blood High T cell engraftment and persistence

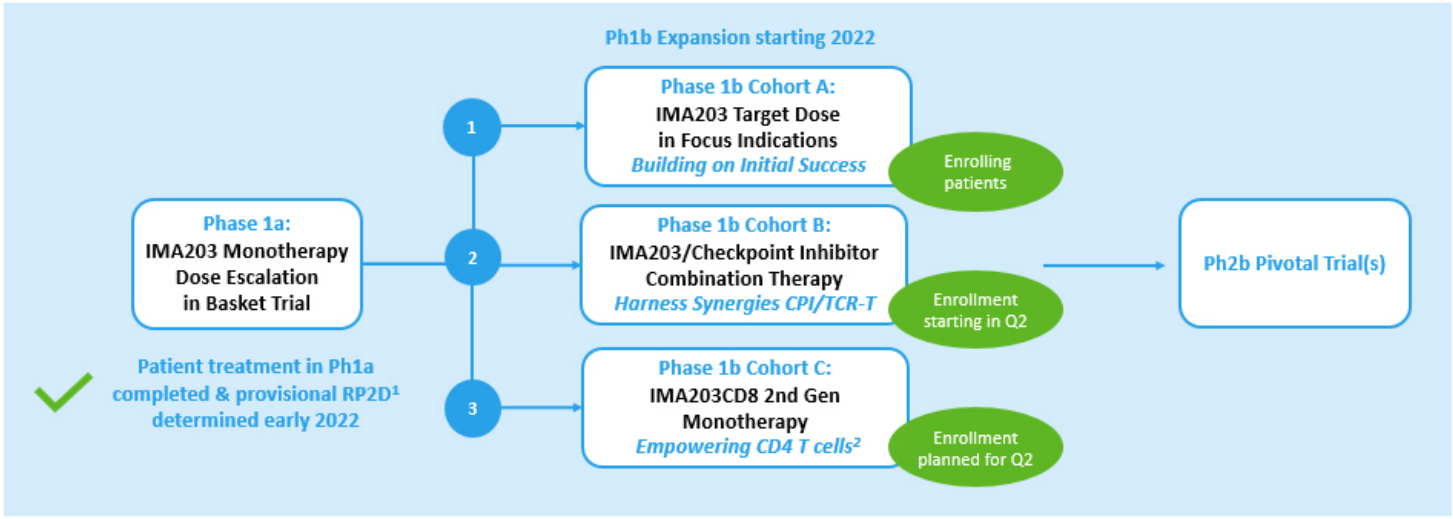
Tumor High T cell infiltration associated with clinical response

Data cut-off – 05-Oct-2021

[1] DLT: dose-limiting toxicity, since March 17, 2021 (reported DLT at DL2); [2] CRS: cytokine release syndrome, ICANS: Immune effector cell-associated neurotoxicity syndrome, both graded by CARTOX criteria (Neelapu *et al.*, 2018); [3] Objective response rate according to RECIST 1.1 including confirmed and unconfirmed partial responses; * Includes patients treated at enrichment cohorts EC1 and EC2

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

Target Cell Dose, Therapeutic Combination & Next-generation Engineering

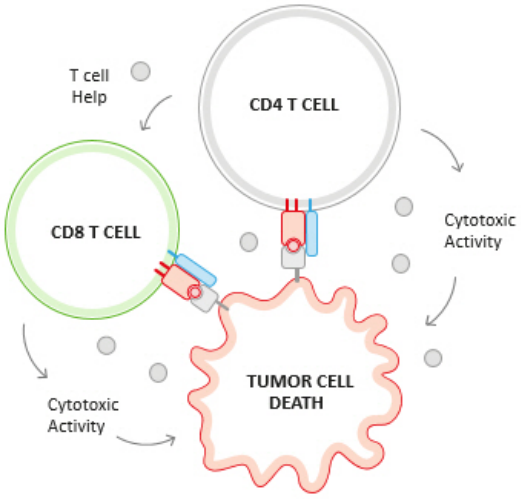


Each expansion cohort is designed to evaluate the observed objective response rate, demonstrate durability of response & provide the basis for entering registration trials

[1] Exploration of higher dose (DL5) planned; [2] Demonstrated to be important for long term remission: Melenhorst *et al.* 2022 Nature

ACTengine® IMA203CD8 – Next-generation TCR-T

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



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

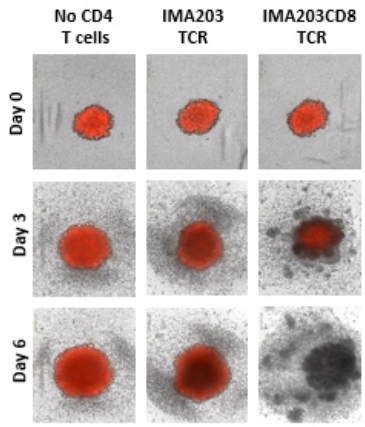
IND filing for IMA203CD8 lead candidate targeted in 1H 2022

[1]Melenhorst *et al.* 2022 Nature

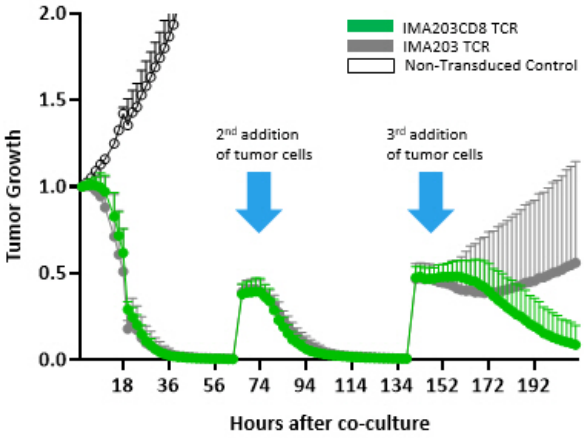
ACTengine® IMA203CD8 – Preclinical Assessment of Anti-Tumor Efficacy

Co-Transduction of CD8 Enhances Anti-Tumor Activity *in Vitro*

3D Spheroid Killing – CD4 T cells



Serial Killing Assay – CD8 & CD4 T cells



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

ACTengine® IMA201 Targeting MAGEA4/8

Key Features

TARGET

HLA-A*02-presented peptide derived from **MAGEA4 and/or MAGEA/8**

>5-fold higher peptide copy number per tumor cell than a commonly used MAGEA4 target

Naturally and specifically presented on tumors at high target density[1]: **100-1,000 copies/cell**

Identified and validated by XPRESIDENT® quant. mass spectrometry platform

TCR

High-affinity, specific TCR targeting MAGE4/8

High functional avidity[2]: **EC50 ~10 ng/ml**

Identified and characterized by XCEPTOR® TCR discovery and engineering platform

CLINICAL DATA

N=2 pts treated in phase 1 dose escalation cohort

DL2 commenced

Too early for assessment of safety or anti-tumor activity

PATIENT POPULATION[3]

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

Data cut-off – 17-Sep-2021

[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® IMA202 Targeting MAGEA1

Key Features

TARGET

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

Naturally and specifically presented on tumors at high target density[1]: **50-900 copies/cell**

Identified and validated by XPRESIDENT® quant. mass spectrometry platform

TCR

High-affinity, specific TCR targeting MAGE1

High functional avidity[2]: **EC50 ~15 ng/ml**

Identified and characterized by XCEPTOR® TCR discovery and engineering platform

CLINICAL DATA

N=10 pts treated in phase 1 dose escalation cohort

Target dose level DL3 ongoing

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

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

Maximum change of target lesion -35.4% in melanoma pt[3]

PATIENT POPULATION[4]

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

Data cut-off – 17-Sep-2021

[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] Timepoint of maximum change of target lesion (week 12): PD due to growth of non-target lesion; [4] 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 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]

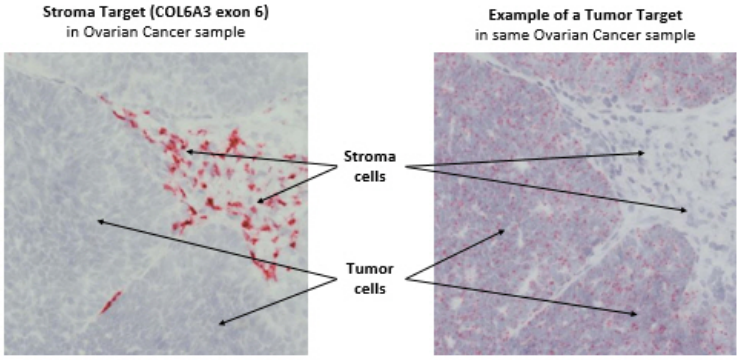
Pancreatic Carcinoma – 80%
Breast Carcinoma – 75%
Stomach Carcinoma – 65%
Sarcoma – 65%
Esophageal Carcinoma – 60%
Squamous NSCLC– 55%
Adeno NSCLC– 55%
HNSCC – 55%
Uterine Carcinosarcoma – 55%
Colorectal Carcinoma – 45%
Mesothelioma – 45%
Cholangiocarcinoma – 40%
Ovarian Carcinoma – 40%
Melanoma – 35%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

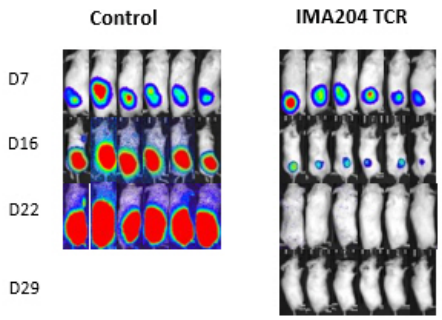
[1]Target density: peptide copy number per tumor cell, approximate range representing the majority of tumor samples analyzed; [2] Functional avidity: EC50 half maximal effective concentration; [3]Solid cancer indications with 20% or more target expression, Target prevalence for selected cancer indications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



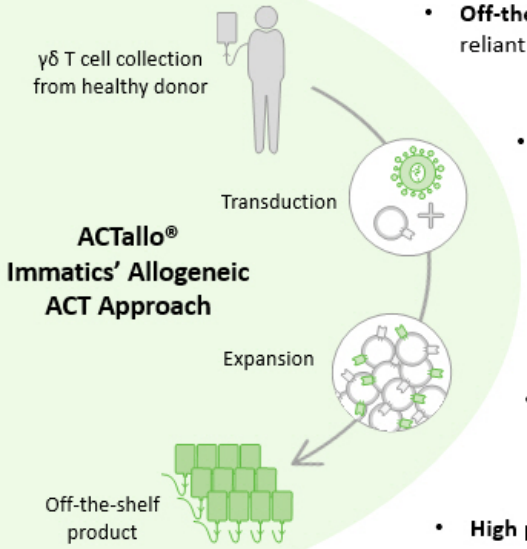
CD8-independent TCR leads to tumor eradication in all mice treated

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

[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® IMA30X – Immatics' Allogeneic Cell Therapy Approach

Effective Redirection of γδ T cells Using αβ TCR

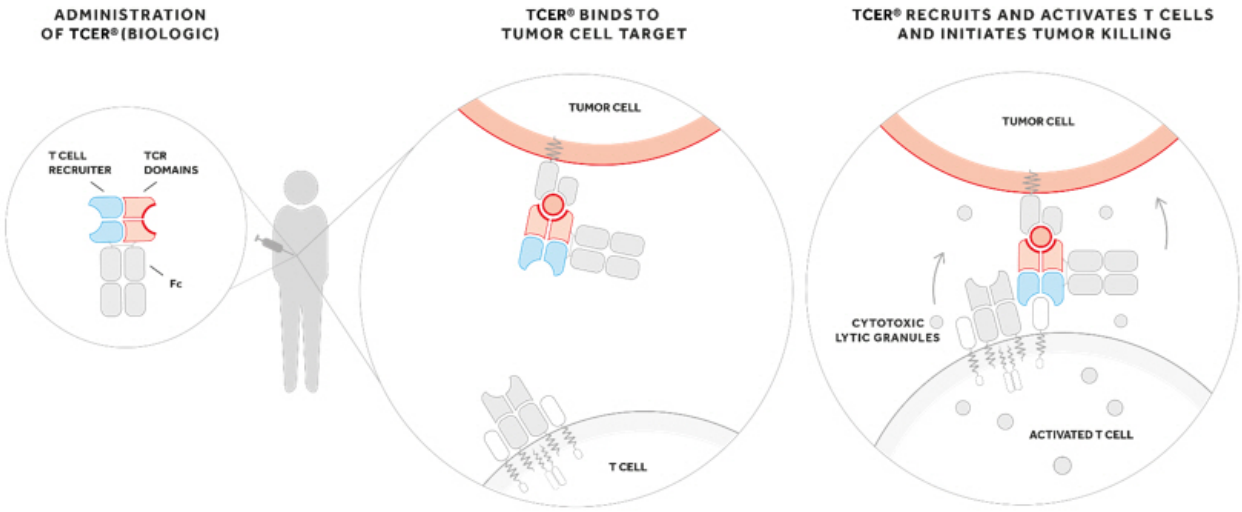


- **Off-the-shelf cell therapy**, applicable without need for personalized manufacturing and not reliant on potentially encumbered immune system of patient
- **γδ T cells** are abundant, show intrinsic anti-tumor activity, naturally infiltrate solid tumors and do not cause graft-vs-host disease
- **Proprietary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

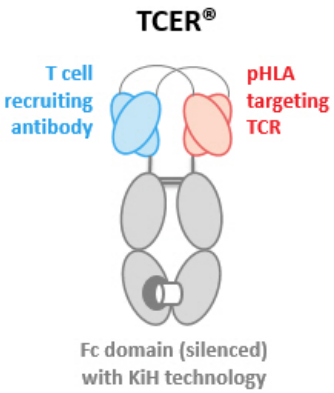
TCER® – TCR Bispecifics

TCER® – Mechanism of Action

Immatics' Off-the-Shelf TCR Bispecifics Approach



TCER® – Immatics' Half-Life Extended Bispecifics



pHLA targeting TCR

- ✓ **High-affinity TCR** targeting HLA-restricted tumor-specific peptides
- ✓ Broad therapeutic window through **XPRESIDENT®-guided** affinity maturation (>1000x)[2]
- ✓ **Complete tumor eradication** in mouse xenograft models at low doses

T cell recruiting antibody

- ✓ **Low-affinity** T cell recruiter against both **TCR & CD3**
- ✓ **Optimized biodistribution** aiming for enrichment at tumor site and **prevention of CRS**[1]
- ✓ **Superior anti-tumor activity** in mouse models as compared to widely used CD3 recruiters

Next-generation TCER® format

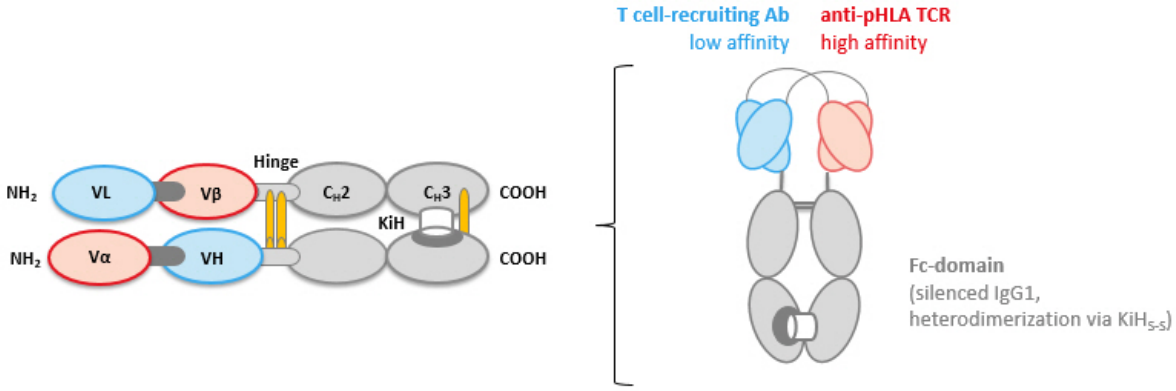
- ✓ Off-the-shelf biologic with antibody-like manufacturability[3] and low cost of goods
- ✓ Superior anti-tumor activity[4] compared to six alternative bispecific formats
- ✓ Half-life of several days expected in humans

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

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

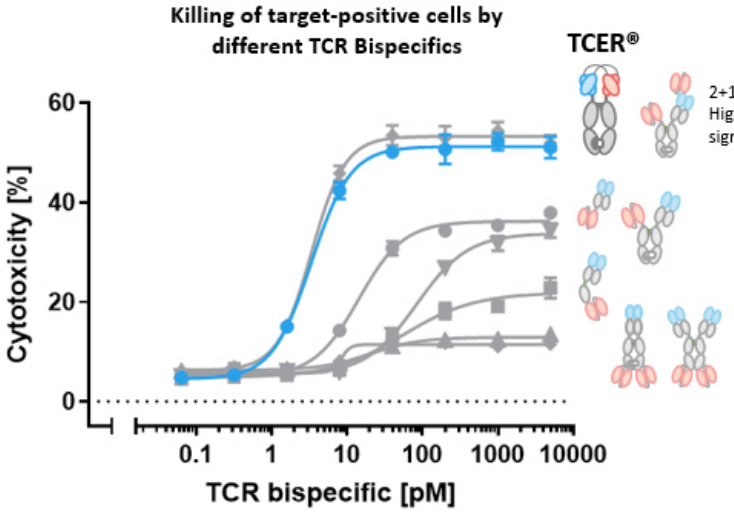
TCER® – Development of a Proprietary TCR Bispecific Format

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



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

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

[1] Preclinical data on specificty not shown

TCER® Portfolio

Building a Pipeline of Next-Gen Half-Life Extended TCR Bispecifics

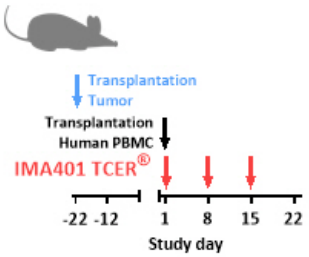
	IMA401	IMA402	IMA40X
	MAGEA4/8	**PRAME**	**Undisclosed**
Status	CTA[1] approved in February 2022; Start of Phase 1 trial in 2Q 2022	Clinical GMP batch targeted in 2022 Phase 1 trial in 2023	TCER® engineering and preclinical testing ongoing
Preclincial Proof-of-concept – Efficacy / Safety	➢ Complete remission of estab. tumors in xenograft mouse models at low doses ➢ Very broad therapeutic window (reactivity tumor compared to normal cells)		n/a
Half-life	Half-life extended to several days via effector function silenced Fc part		
Clinical Development Strategy	➢ First-in-human basket trial ➢ Adaptive design aiming at fast dose escalation ➢ Development strategy includes TCER® as add on to checkpoint inhibitor-based standard of care in early lines of treatment		

[1] Clinical trial application – the European equivalent of an Investigational New Drug (IND) application

TCER® IMA401 Targeting MAGEA4/8

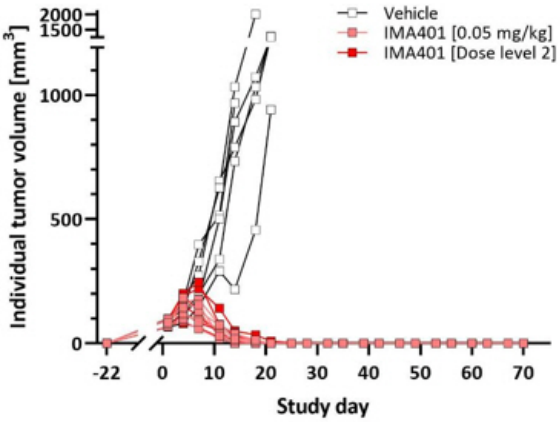
IND-stage Product Candidate in Development with Bristol Myers Squibb

Treatment schedule



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

Tumor Model in Mice[1]



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

[1] Hs695T xenograft model in MHC I/II ko NSG mice, tumor volume of individual mice shown

TCER® IMA402 Targeting PRAME

Preclinical-stage Product Candidate Fully Owned by Immatics

PRAME Target Peptide

- **HLA-A*02-restricted PRAME peptide** targeted by TCER® IMA402 is one of the most frequently expressed intracellular cancer targets for TCR-based therapies
  - Homogenously expressed at high prevalence across multiple solid tumors including melanoma, lung cancer, gynecological cancers (ovarian, breast, uterine) and others

Preclinical Proof-of-Concept Data

- **High *in vitro* potency** in killing of tumor cells with physiological PRAME peptide levels
- Favorable safety profile with broad therapeutic window between tumor and normal cell reactivity *in vitro*
- **Consistent tumor regression** including complete responses in NOG mice treated at low doses
- **Extended serum half-life** of several days[1] expected in humans driven by the TCER® Fc part

Well Progressing CMC Development

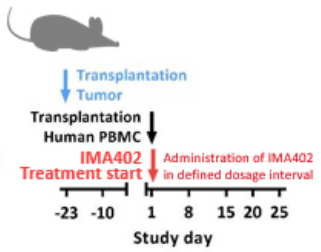
- Current data support antibody-like manufacturability and developability
- GMP process development and IND-enabling activities ongoing
- Manufacturing of the clinical batch for the Phase 1 trial expected in 2H 2022

[1] Based on preclinical testing

TCER® IMA402 – Efficacy Assessment in Tumor Model in Mice

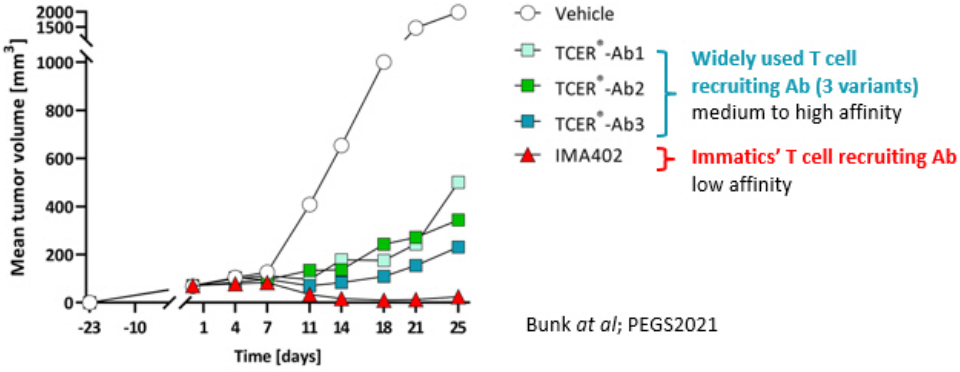
Superior Tumor Control Using a Proprietary, Low-Affinity Recruiter

Treatment schedule



N=6 mice per group, two PBMC donors
Dose: 0.025 mg/kg

Tumor Model in Mice[1]

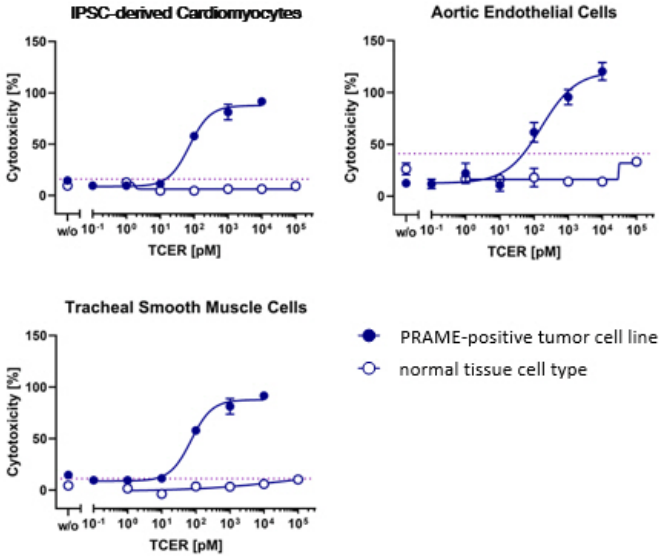


Bunk *at al*; PEGS2021

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® IMA402 – *In vitro* Safety Assessment with Normal Tissue Cells



Normal Tissue Type	Therapeutic Window (x-fold)
IPSC-derived astrocytes	≥1,000
IPSC-derived GABA neurons	≥1,000
IPSC-derived cardiomyocytes	≥1,000
Human Pulmonary Fibroblasts	≥1,000
Human Cardiac Microvascular Endothelial Cells	≥1,000
Human Dermal Microvascular Endothelial Cells	≥1,000
Human Aortic Endothelial Cells	≥1,000
Human Coronary Artery Smooth Muscle Cells	≥1,000
Human Tracheal Smooth Muscle Cells	≥1,000

- Cytotoxicity against N≥9 different human normal tissue cell types
- TCER® IMA402 shows a **minimum of 1,000-fold therapeutic window** between normal tissue cell reactivity and tumor cell reactivity

Immatics' Proprietary Target and TCR Discovery Platforms

True Cancer Targets & Matching Right TCRs

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

True Targets via XPRESIDENT® technology platform

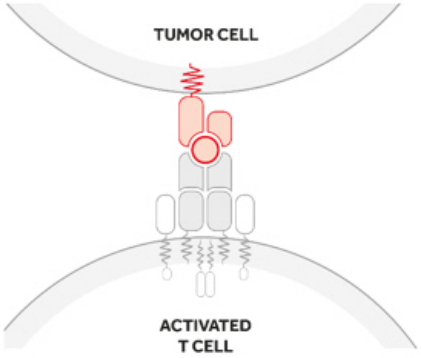
- are naturally presented on tumor tissues as identified by mass-spec
- are absent or presented at only low levels on normal tissues
- are presented at high copy numbers to trigger a pharmacological response

Right TCRs via XCEPTOR® technology platform

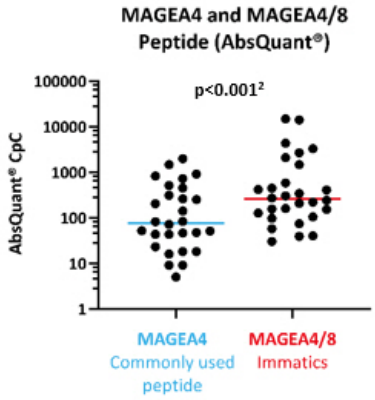
- recognize the target peptide with high affinity and specificity
- show selective killing of tumor cells
- are developed to be suitable for two different therapeutic modalities, Cell Therapies and TCR Bispecifics

Immatics' Unique Capability – Identification of the most Relevant Target

Example of MAGEA4/8 Peptide Target



Ranking of pHLA targets



XPRESIDENT® quantitative information on target 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

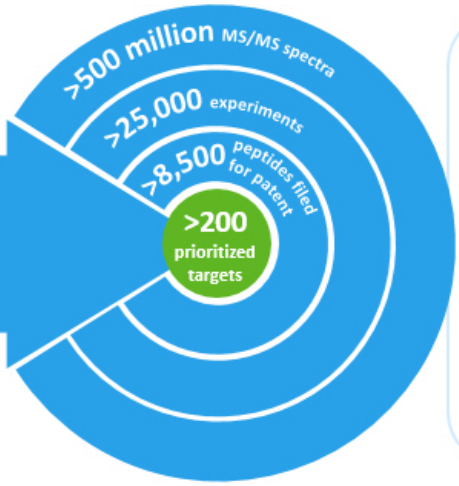
[1] Copy number per tumor cell (CpC) measured on a paired-sample basis by AbsQuant®, i.e. comparing MAGEA4 vs. MAGEA4/A8 peptide presentation on same sample, [2] Students paired T test

Pool of 200 Prioritized Targets as Foundation for Future Value Generation

pHLA Database

based on primary tissues

>2,500 cancer & normal tissues analyzed by **Quantitative, Ultra-Sensitive Mass Spectrometry**



200 Prioritized Targets

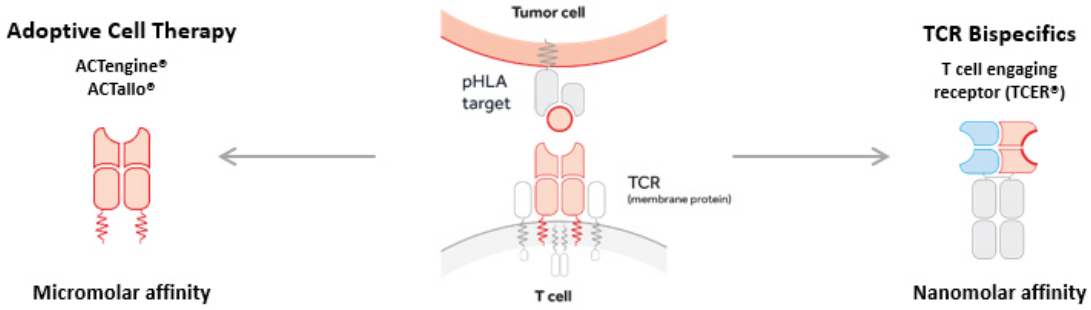
Grouped in 3 Target Classes:

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

Development of the Right TCR – XCEPTOR® Technology

TCR Discovery and Engineering for ACT and TCR Bispecifics

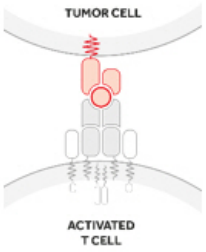
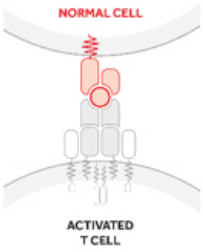
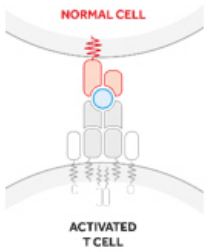


- Fast, efficient and highly sensitive discovery of highly specific, natural TCRs
- Protein engineering capabilities to design and maturate TCRs with increased affinity while retaining specificity
- Early de-selection of cross-reactive TCRs by the unique interplay between Immatics' target and TCR discovery 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)

Corporate Information & Milestones

Experienced Global Leadership Team Across Europe and the US

Harpreet Singh
Chief Executive Officer
Co-Founder
>20 yrs biotech experience

Arnd Christ
Chief Financial Officer
>20 yrs biotech experience
(Probiodrug, NovImmune, Medigene, InflaRx)

Cedrik Britten
Chief Medical Officer
>10 yrs pharma & biotech experience
(BioNTech, GSK)

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

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

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

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

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

Jordan Silverstein
Head of Strategy
>10 yrs biotech experience
(Advanced Accelerator Applications, InflaRx)

Strong, Focused and Highly Integrated Trans-Atlantic Organization

Tübingen, Germany, ~175 FTEs

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

Houston, Texas , ~125 FTEs

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

Munich, Germany, ~45 FTEs

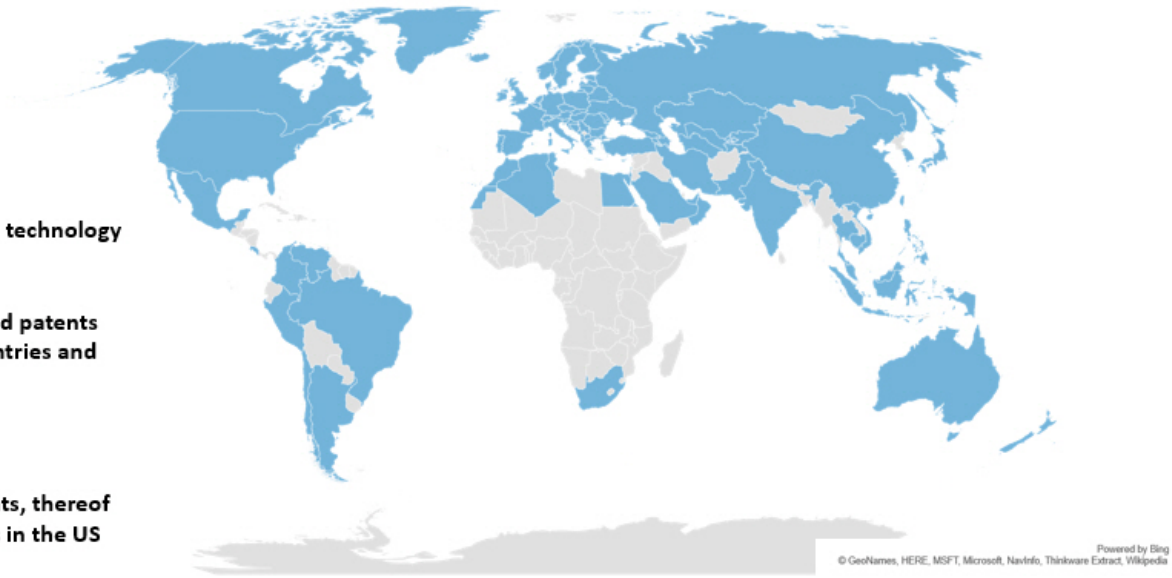
Senior Leadership, Business Development, Clinical Operations, Intellectual Property, Regulatory Affairs, Communications

Robust IP Portfolio

Immatics' Patent Estate – Territorial Coverage

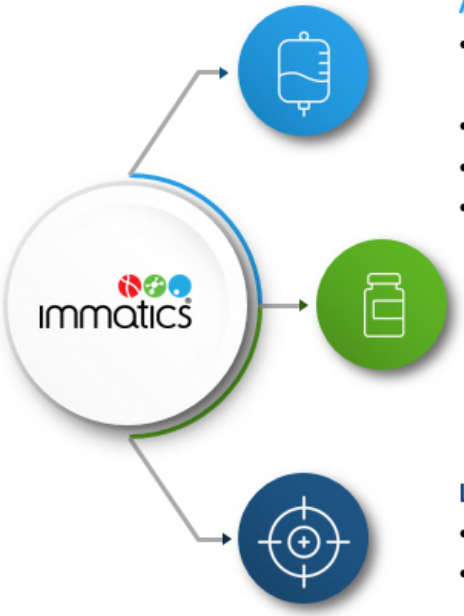
Cancer targets, TCRs and technology protected by:

- **5,800 applications and patents filed in all major countries and regions**
- **>120 patent families**
- **>2,000 granted patents, thereof >480 granted patents in the US**



Near-Term Value Drivers and Development Milestones

Clinical Expansion of TCR Bispecifics and the Next-generation of TCR-T



Advance clinical development of ACTengine® candidates

- Initiation of multiple IMA203 Ph1b expansion cohorts ongoing: Monotherapy, checkpoint combination, 2nd-gen approach IMA203CD8
- Next IMA203 monotherapy data read-out in 2H 2022
- Initial data read-out for checkpoint combination, IMA203CD8 YE 2022
- Advance IMA204 to the clinic, submission of IND application YE 2022

Move TCER® into clinical development

- Trial initiation for IMA401 (MAGEA4/8) in 2Q 2022
- Manufacturing of IMA402 clinical batch in 2H 2022, clinical trial in 2023
- Innovative TCER® program(s) IMA40X in preclinical development

Leverage full potential of targeting PRAME

- Focused & accelerated development of IMA203 expansion cohorts
- Develop IMA402, an off-the-shelf TCER®

Thank you!

www.immatics.com