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

FORM 6-K

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

May 11, 2021

Commission File Number: 001-39363

IMMATICS N.V.

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

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

Form 20-F ☒ Form 40-F ☐

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

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

INFORMATION CONTAINED IN THIS REPORT ON FORM 6-K

On May 11, 2021, Immatics N.V. (the "Company") issued a press release announcing preclinical proof-of-concept data for its product candidate IMA402. A copy the press release is attached hereto as Exhibit 99.1.

On May 11, 2021, the Company made available a presentation relating to its TCER programs on its website. A copy the presentation is attached hereto as Exhibit 99.2. The fact that this presentation is being made available and filed herewith is not an admission as to the materiality of any information contained in the presentation. The information contained in the presentation is being provided as of May 11, 2021 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 May 11, 2021
99.2	Presentation dated May 11, 2021

SIGNATURES

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

Date: May 11, 2021

IMMATICS N.V.

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

PRESS RELEASE

Immatics Presents Preclinical Proof-of-Concept Data for TCR Bispecifics Program IMA402 Targeting PRAME

- Immatics' second TCR Bispecifics program IMA402 demonstrates tumor cell killing *in vitro* and complete regressions of established tumors in an *in vivo* tumor model
- IMA402 targets an Immatics-validated peptide derived from PRAME, one of the most frequently expressed intracellular cancer targets for TCR therapy
- Immatics has selected a clinical lead candidate for the IMA402 program and initiated manufacturing activities

Tuebingen, Germany and Houston, Texas, May 11, 2021 – Immatics N.V. (NASDAQ: IMTX, "Immatics"), a clinical-stage biopharmaceutical company active in the discovery and development of T cell-redirecting cancer immunotherapies, today announced data from its second T cell receptor (TCR) Bispecifics program, IMA402, supporting preclinical proof-of-concept for the program and further validating this proprietary therapeutic modality. IMA402 is directed against the cancer target PRAME, a protein that is frequently expressed in many solid cancers, thereby supporting the program's potential to address a broad cancer patient population. IMA402 is the second program originating from Immatics' TCR Bispecifics pipeline, called TCER® (T Cell Engaging Receptor). The lead candidate showed anti-tumor activity against PRAME-positive cancer cells leading to consistent reduction of the engrafted tumors, including complete responses in an *in vivo* mouse model. The preclinical data will be presented at the virtual 17th Annual PEGS Boston Protein Engineering and Cell Therapy Summit, on May 11-13, 2021.

Preclinical data highlights:

- The IMA402 TCER® candidate targets an HLA-A*02-bound peptide derived from preferentially expressed antigen in melanoma (PRAME).
- The target peptide was selected and validated based on quantitative mass spectrometry data from Immatics' proprietary XPRESIDENT® platform and is prevalent in many solid tumor indications including lung, ovarian and breast cancer as well as other solid cancer types.
- Over 50 different human wild-type TCRs recognizing the PRAME target peptide were systematically evaluated using Immatics' XCEPTOR® platform. Two TCRs with high avidity and specificity were selected and affinity-enhanced by at least 1,000-fold while retaining specificity through the XPRESIDENT®-guided screening for off-target toxicity and cross-reactivity. Different engineered TCR variants were then incorporated into the bispecific TCER® scaffold and the best candidate was selected.

- The IMA402 TCER® candidate induces killing of tumor cells *in vitro* with PRAME target peptide levels similar to levels found in cancer patients.
- Administration of IMA402 TCER® candidate leads to consistent tumor regression including complete responses in an *in vivo* mouse model.
- The IMA402 TCER® candidate demonstrates selective PRAME recognition leading to an at least 1,000-fold therapeutic window between tumor and normal cell reactivity *in vitro.*
- Preclinical data support antibody-like profiles for manufacturability and pharmacokinetics of the IMA402 TCER® candidate.

Carsten Reinhardt, M.D., Ph.D., Chief Development Officer at Immatics commented: “Having generated a strong preclinical proof-of-concept data package for our second TCR Bispecifics program is a significant milestone for Immatics. Together with our Adoptive Cell Therapy (ACT) program IMA203, which also targets PRAME, we are attacking this ubiquitous cancer cell protein from two different angles using our distinct therapeutic modalities. Based on the demonstrated preclinical data supporting significant single-agent activity of both of our TCER® programs against established tumors, we are looking forward to advancing our TCER® candidates, IMA401 and IMA402, into the clinic with the aim to treat cancer patients who have an urgent need for new treatment options.”

For the IMA402 TCER® program, Immatics has initiated GMP process development activities to advance this program towards the Investigational New Drug (IND) stage and clinical development. The company’s first TCER® program, IMA401 remains on track for submission of a clinical trial application (CTA) by year end 2021. The company had previously announced preclinical proof-of-concept data for IMA401 in last quarter of 2020.

The full presentation of preclinical data from the IMA402 program is available on Immatics’ website using this link.

About TCER®

Immatics’ TCER® molecules are antibody-like “off-the-shelf” biologics that leverage the body’s immune system by redirecting and activating T cells towards cancer cells expressing a specific tumor target. To do so, the proprietary biologics are engineered to have two binding regions. The first region contains an affinity- and stability-improved TCR that binds specifically to the cancer target on the cell surface presented by a human leukocyte antigen (HLA) molecule. The second region is derived from an antibody domain that recruits endogenous T cells to the tumor to become activated. The design of the TCER® molecules enables the activation of any T cell in the body to attack the tumor, regardless of the T cells’ intrinsic specificity. In addition, the TCER® molecule has a Fc-part conferring stability, half-life extension and enhanced manufacturability.

- END -

About Immatics

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

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

Forward-Looking Statements:

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

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Targeting of Tumor-specific Peptide Antigens with Bispecific T Cell-Engaging Receptor (TCER®) Molecules

PEGS: The Essential Protein Engineering & Cell Therapy Summit 2021

Sebastian Bunk, Martin Hofmann, Gabriele Pszolla, Meike Hutt, Frank Schwoebel, Felix Unverdorben, Claudia Wagner, Maike Jaworski, Heiko Schuster, Florian Schwoerer, Christoph Schraeder, Oliver Schoor, Toni Weinschenk, Dominik Maurer and Carsten Reinhardt

Immatics, Tuebingen, Germany

Disclaimer

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.

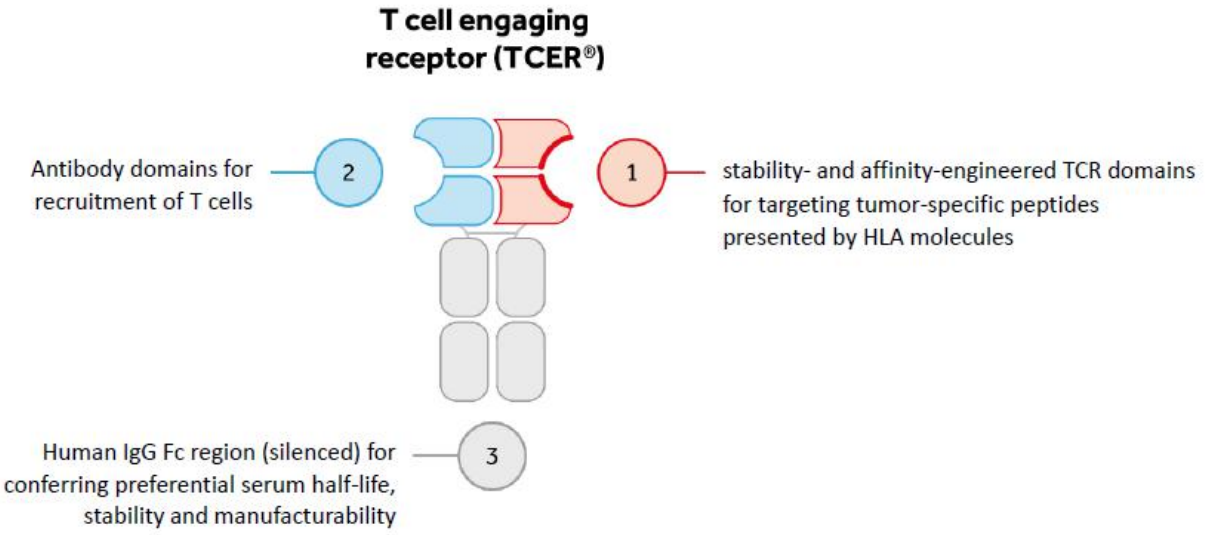
Forward-Looking Statements. Certain statements in this presentation may be considered forward-looking statements. Forward-looking statements generally relate to future events or the Company's future financial or operating performance. For example, statements concerning timing of data read-outs for product candidates, the IND filing 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 (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 applicablelaw.

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. This meeting and any information communicated at this meeting are strictly confidential and should not be discussed outside your organization.

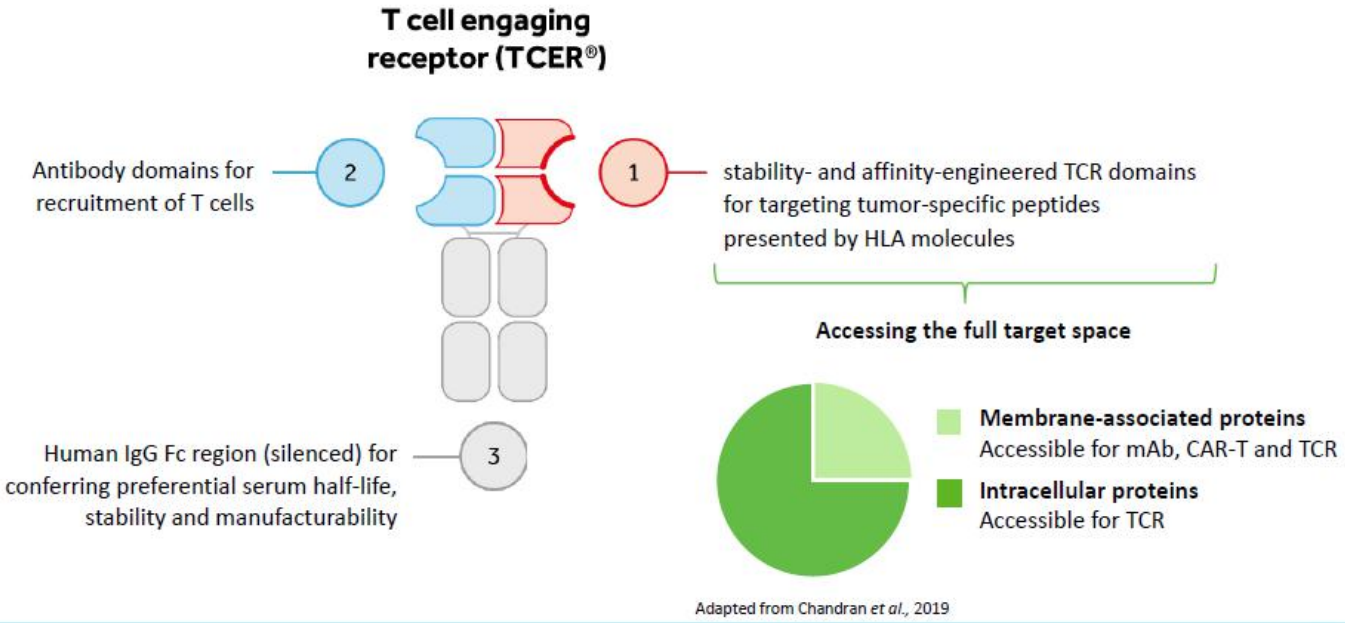
TCER® – Immatics' TCR Bispecifics

Proprietary TCER® Format Consisting of Three Distinct Elements



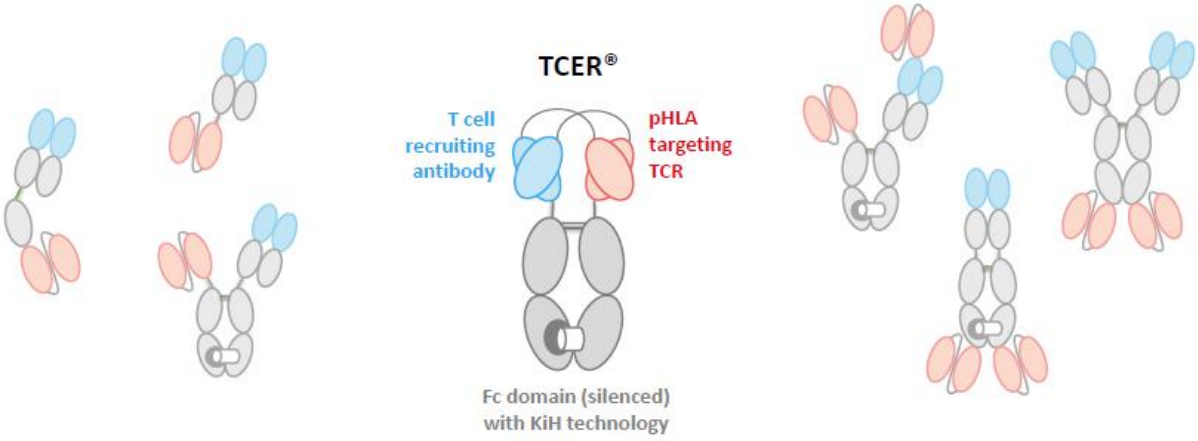
TCER® – Immatics' TCR Bispecifics

Unlock Immunotherapies for Solid Cancers with Targets beyond the Cancer Cell Surface



Adapted from Chandran *et al.*, 2019

TCER® – Superior Proprietary TCR Bispecific Format



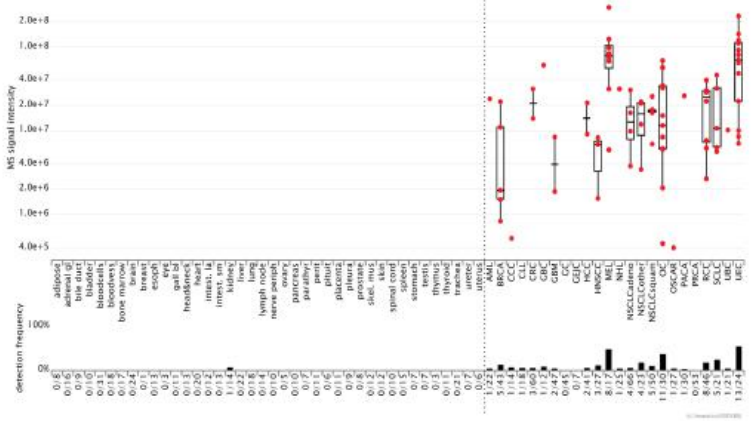
Potency and stability of proprietary TCER® format is superior to six alternative TCR Bispecific formats[1]

[1] Based on comparative preclinical testing

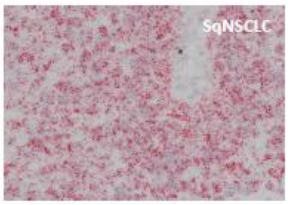
IMA402 TCER® – PRAME Target Peptide on HLA-A*02

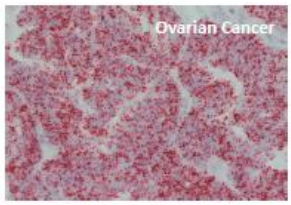
Detection of PRAME Peptide and PRAME RNA in Tumor and Normal Tissues

PRAME Peptide detection (MS)



PRAME RNA detection in tumor samples (ISH)





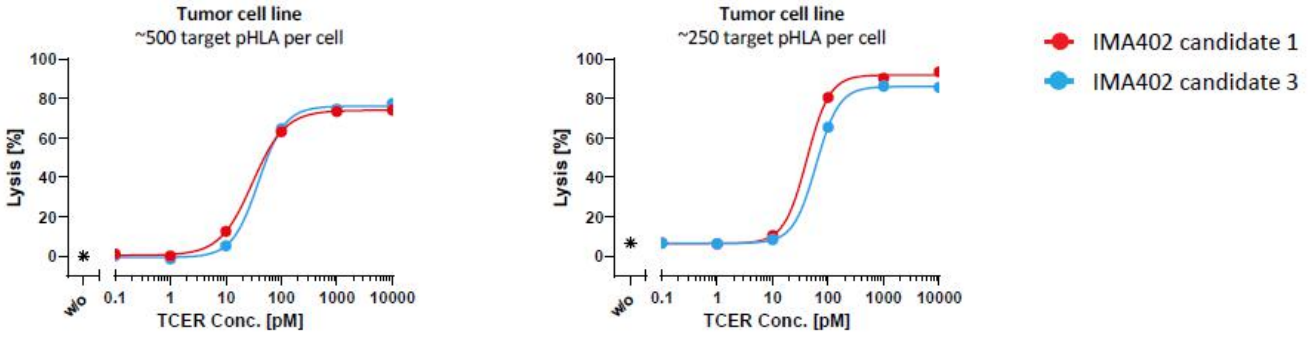
PRAME target prevalence in selected cancer indications

Indications	Target prevalence [%]
Uterine carcinoma	100
Melanoma	95
Ovarian carcinoma	80
Squamous non-small cell lung carcinoma	65
Uveal melanoma	50
Cholangiocarcinoma	35
Diffuse large B-cell lymphoma	30
Breast carcinoma	25
Head & neck squamous cell carcinoma	25
plus several further indications	

PRAME target prevalences are based on TCGA data combined with a XPRESIDENT®-determined target individual MS-based mRNA expression threshold

IMA402 TCER® – *In Vitro* Efficacy Assessment

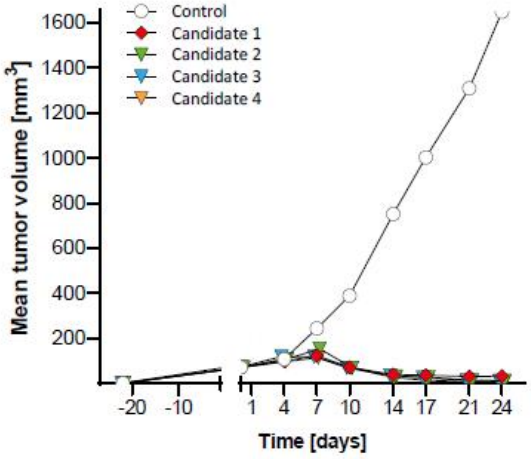
PBMC-mediated Cytotoxicity Against Tumor Cells

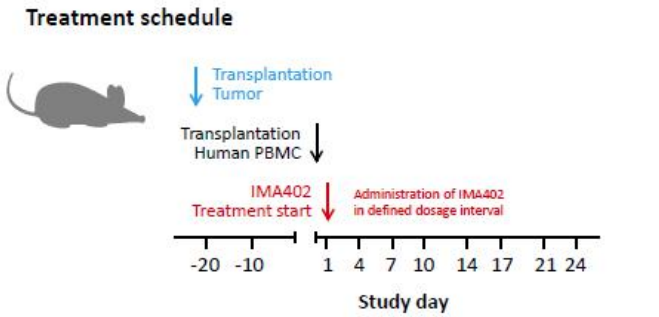


IMA402 TCER® candidates **induce killing of tumor cell lines presenting PRAME** target peptide-HLA at similar copy numbers than detected in patient cancer tissue (100 – 1000 copies per cell)

IMA402 TCER® – *In Vivo* Efficacy Assessment

Anti-Tumor Activity of Four IMA402 Candidates in Subcutaneous Tumor Xenograft in Mice



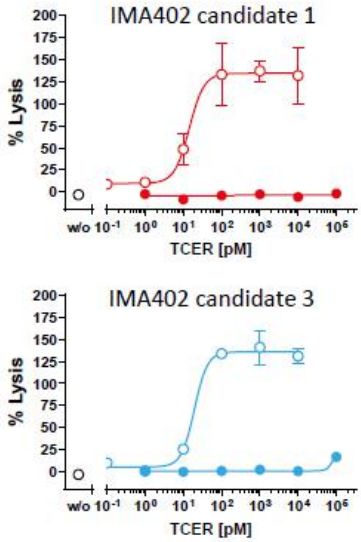


Mouse strain: NOG (8 -10 mice per group), Tumor cell line: ~500 target pHLA per cell, PBMC: 2 human donors, Control: Treatment with PBS (TCER® vehicle)

Anti-tumor activity of IMA402 TCER® candidates **including complete regressions in tumor xenograft model**

IMA402 TCER® – *In Vitro* Safety Assessment

PBMC-mediated Cytotoxicity Against Normal Tissue Cells

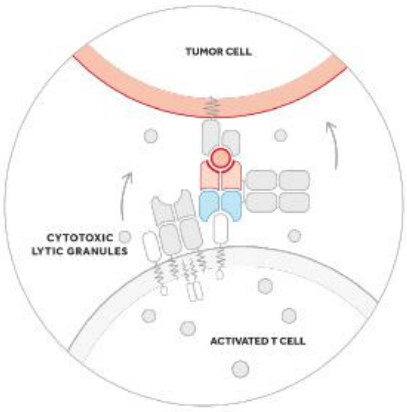


	Therapeutic window (x-fold)	
Normal tissue cell type	candidate 1	candidate 3
iPSC-derived Cardiomyocytes	≥10,000	≥1,000
iPSC-derived Astrocytes	≥10,000	≥1,000
iPSC-derived GABA neurons	≥10,000	≥10,000
Aortic Endothelial cells	≥10,000	≥1,000
Coronary Artery Smooth Muscle Cells	≥10,000	≥10,000
Cardiac Microvascular Endothelial Cells	≥10,000	≥1,000
Pulmonary Fibroblasts	≥10,000	≥1,000
Tracheal Smooth Muscle Cells	≥10,000	≥10,000
Renal Cortical Epithelial Cells	≥10,000	≥1,000
Dermal Microvascular Endothelial Cells	≥10,000	≥10,000
Mesenchymal Stem Cells from Bone Marrow	≥10,000	≥10,000

- Cytotoxicity assessed against N=11 different human normal tissue cell types
- IMA402 TCER® candidates show a **minimum of 1,000-fold therapeutic window** between tumor cell reactivity and normal tissue cell reactivity

Profile of Second TCER® Program – IMA402 Candidates Targeting PRAME

Summary



- IMA402 TCER® is directed against **PRAME**, one of the most frequently expressed intracellular cancer targets for TCR-based therapies
- Killing of PRAME-positive cancer cells with a **minimum of 1,000-fold therapeutic window**
- **Consistent tumor regression** including complete responses in *in vivo* (NOG mouse) model
- Further data support **antibody-like profiles** for manufacturability and pharmacokinetics
- **Manufacturing activities** with clinical candidates including one lead candidate have started

IMA402 is the second TCER® program having reached preclinical proof-of-concept validating Immatics' proprietary TCER® platform