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.

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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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