PRESS RELEASE

Immatics Presents Data Update on Dose Escalation from Ongoing ACTengine® Cell Therapy Programs

Company to host conference call on Wednesday, March 17 at 8:30 am EST

- **First anti-tumor activity observed in heavily pre-treated solid cancer patients during early phases of dose escalation**
- **Tumor shrinkage observed in 8 out of 10 patients including one partial response consistent with robust biological activity of infused T cell products**
- **Treatment-emergent adverse events were transient and manageable**

Houston, Texas and Tuebingen, Germany, March 17, 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 a clinical data update from the dose escalation cohorts of the company's ongoing Phase 1 trials for its engineered Adoptive Cell Therapy approach (also known as TCR-T). The treatment of patients with ACTengine® product candidates IMA201, IMA202 and IMA203 at initial dose levels below one billion transduced cells, intended to establish safety and first biological activity, showed first anti-tumor activity with 9 out of 10 evaluable patients showing disease control as well as tumor shrinkage observed in 8 out of 10 patients including one partial response. Clinical observations were consistent with observed robust engraftment, persistence and tumor infiltration of infused ACTengine® T cells. Overall, all product candidates demonstrated a manageable safety and tolerability profile. Each of the ACTengine® product candidates harness the patient's own T cells, which are genetically engineered to express a novel, proprietary T cell receptor (TCR) directed against a defined cancer target.

Harpreet Singh, Ph.D., Chief Executive Officer at Immatics commented: "While the focus of this readout was to evaluate safety and initial biological activity, these unexpected observations on first anti-tumor activity indicate the therapeutic potential for our ACTengine® platform in solid cancer patients with considerable tumor burden. We look forward to completing dose escalation and sharing first data at target dose in the latter part of this year."

Cedrik Britten, M.D., Chief Medical Officer at Immatics added: "The clinical data emerging from this early phase of our ACTengine® trials provides a first evidence of anti-tumor activity at dose levels presumed to be sub-therapeutic. When benchmarking these results with published data in

the field, the level of T cell engraftment and persistence accompanied by tumor shrinkage goes beyond what would have been expected at these low dose levels in this heavily pretreated patient population."

Clinical trial overview and patient characteristics:

- The primary objectives of the Phase 1 studies are to study the safety profile of the ACTengine® product candidates in patients with target-positive solid cancers and to determine the recommended Phase 2 dose. Secondary objectives include the assessment of T cell engraftment, persistence and infiltration into the tumor, and the assessment of objective tumor responses.
- At data cut-off on February 16, 2021, 14 patients across multiple solid tumor indications, including non-small cell lung cancer, head & neck cancer, melanoma, synovial sarcoma and others, received ACTengine® T cell products. All patients were heavily pre-treated, failed all previous therapies and entered the study with recurrent and/or refractory tumors. All patients received lymphodepletion prior to product infusion.
- For 10 patients with at least one tumor response assessment available after treatment, biological and clinical activity was assessed.
- All of these evaluable patients were dosed with an ACTengine® product candidate at the first or second dose level (DL) as part of the dose-escalation protocol. Median total dose infused was 0.11 billion transduced cells (range: 0.08-0.65 billion). At these low doses below one billion transduced cells – considerably lower than the therapeutic doses described in other TCR-T studies and thus presumed to be sub-therapeutic – the key objective was to establish initial safety and biological activity.

Key clinical findings:

- **Clinical and biological activity:** Data from 10 patients dosed at the first or second dose level with an ACTengine® product candidate – IMA201 (n=1), IMA202 (n=5) and IMA203 (n=4) – and who concluded the observation period for efficacy analysis with at least one tumor response assessment post-baseline as of the data cut-off showed:
    - 9 out of 10 patients achieved disease control (best overall response data according to RECIST1.1 criteria).
    - Tumor shrinkage, i.e. reduction in sum of diameter of target lesions, could be observed in 8 out of 10 patients across all trials. All four IMA203-treated patients had tumor shrinkage with one unconfirmed partial response (PR) at DL2 (total dose of 350 million transduced cells) as of data cut-off.

- Robust T cell engraftment and persistence post infusion was observed across all three trials at levels differentiated from other reported TCR-T studies at such doses and was measurable up to 9 months.
- T cell infiltration into the tumor site was observed in all evaluable patients with available serial tumor biopsies (n=6).

- **Safety:** The safety analysis was conducted for all 16 patients who at the time of data cut-off had started lymphodepletion after enrollment – IMA201 (n=1), IMA202 (n=7), IMA203 (n=8):
  - ACTengine® product candidates were well tolerated. All adverse events were transient and manageable. Most frequent adverse events included expected cytopenias associated with lymphodepletion in all patients and transient low to moderate (Grade 1-2) cytokine release syndrome (CRS) observed in the majority of patients. Three patients experienced transient low to moderate (Grade 1-2) immune effector cell associated neurotoxicity syndrome (ICANS) which resolved within 48 hours after onset.
  - No dose-limiting toxicities were observed in patients treated with IMA201 and IMA202.
  - One patient receiving IMA203 at dose level 2 experienced a dose limiting toxicity (DLT) as defined in the trial protocol. The reaction was transient and fully resolved within 48 hours after onset.

Overall, these data suggest first anti-tumor activity in heavily pretreated patients with high tumor burden at early phases of dose escalation consistent with robust biological activity and support the further evaluation of all three product candidates.

Immatics conference call

To discuss the data from the dose-escalation cohort of the IMA200 series, Immatics will host a conference call on Wednesday, March 17, 2021 at 8:30 am EST / 13:30 CET. The webcast and presentation can be accessed directly through this link. Participants may also access the slides and the webcast on the Immatics website in the Investors section under "Presentations" at https://investors.immatics.com/events-presentations. A replay of the webcast will be made available shortly after the conclusion of the call and archived on the Company's website for at least 90 days.

About the Phase 1 ACTengine® IMA200 series clinical trial design

The objective of the three Phase 1 clinical trials with Immatics' ACTengine® product candidates, IMA201 (NCT03247309), IMA202 (NCT03441100) and IMA203 (NCT03686124) is to evaluate safety, tolerability and initial signs of clinical and biological efficacy in target-positive solid cancer

patients and to determine a recommended Phase 2 dose (RP2D). The Phase 1a dose escalation cohorts of the clinical trial utilize a 2+2 design with three increasing IMA201 or IMA202 doses or a 3+3 design with four increasing IMA203 doses. The Phase 1a dose escalation is currently ongoing. In the Phase 1b dose expansion cohort, additional patients will be evaluated for each product candidate dosed at RP2D to further characterize safety and efficacy of the product candidates.

About ACTengine® IMA200 series

Each of the product candidates of the IMA200 series is based on Immatics' proprietary ACTengine® approach in which the patient's own T cells are genetically engineered to express a novel, proprietary TCR directed against a defined cancer target. The modified T cells are then reinfused into the patient to attack the tumor, an approach also known as TCR-T. IMA201, IMA202 and IMA203 product candidates target unique peptides derived from melanoma-associated antigen 4 and/or 8 ("MAGEA4/A8"), melanoma-associated antigen 1 ("MAGEA1") or preferentially expressed antigen in melanoma ("PRAME"), respectively. These peptide targets are frequently expressed at high density in multiple solid tumor indications such as non-small cell lung cancer, melanoma, head and neck squamous cell carcinoma, bladder, uterine, esophageal, ovarian and hepatocellular carcinoma, synovial sarcoma as well as other cancers. All ACTengine® product candidates can be rapidly manufactured utilizing a proprietary manufacturing process designed to enhance T cell engraftment and persistence *in vivo*.

- END -

About Immatics

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

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

Forward-Looking Statements:

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

For more information, please contact:

For media enquiries
Jacob Verghese or Stephanie May
Trophic Communications
Phone: +49 89 2388 7731
immatics@trophic.eu

Investor Relations Contact
John Graziano
Solebury Trout
Phone: +1 646-378-2942
jgraziano@soleburytrout.com

Immatics N.V.
Anja Heuer
Corporate Communications
Phone: +49 89 540415-606
media@immatics.com

Investor Relations Contact
Jordan Silverstein
Head of Strategy
Phone: +1 281-810-7545
InvestorRelations@immatics.com