PRESS RELEASE

Affimed Shares Preclinical Data on Innate Cell Engagers AFM28 and AFM13 at the 63rd American Society of Hematology Annual Meeting and Exposition

- AFM28 effectively induces depletion of leukemic cells in patient bone marrow samples and demonstrates the anticipated good safety profile and pharmacologic activity in cynomolgus monkeys
- Pre-complexing AFM13 with NK cells generates CAR-like NK cells, which retain biological activity and specificity after one cycle of freezing and thawing. This is an important prerequisite for the development of off-the-shelf products

Heidelberg, Germany, December 13, 2021 – Affimed N.V. (Nasdaq: AFMD), a clinical-stage immuno-oncology company committed to giving patients back their innate ability to fight cancer, today presented preclinical data from two of their Innate Cell Engager (ICE®) programs at the 63rd American Society of Hematology Annual Meeting (ASH). The poster presentations included preclinical proof-of-concept data on AFM28, for which Affimed recently revealed the target and indication. The program is in development for the treatment of Acute Myeloid Leukemia and other CD123+ hematologic malignancies. The second poster presentation provided data on the activity of AFM13 pre-complexed to NK cells after cryopreservation, demonstrating the potential to develop AFM13 as an off-the-shelf chimeric antigen receptor (CAR)-like NK cell product.

Preclinical characterization of the ICE® AFM28

The novel ICE® AFM28 is designed to target CD16A on innate immune cells and CD123 on tumor cells in relapsed or refractory acute myeloid leukemia (AML) and myelodysplastic syndrome (MDS). CD123 is almost universally expressed on leukemic blasts and leukemic stem cells (LSCs) and thereby represents a promising target in both indications.

The results revealed that target cell lysis via NK cell-mediated antibody-dependent cell-mediated cytotoxicity (ADCC), even at low CD123 expression, was more pronounced compared to conventional anti-CD123 antibodies. In addition, AFM28 showed a 100-fold more potent NK cell activation in an *ex vivo* analysis, compared to Fc-enhanced IgG1 antibodies. When compared with a CD123-targeting T cell-engaging bispecific antibody, AFM28 activity was associated with substantially lower levels of inflammatory cytokine release suggesting low risk of cytokine release syndrome. In support of these findings, administration of AFM28 to

cynomolgus monkeys induced the effective depletion of CD123+ target cells and was well tolerated.

AFM28 is currently being prepared for clinical evaluation. The properties of the preclinical characterization make it an interesting candidate for combination approaches with allogeneic NK cell products.

“There is an urgent need for relapsed or refractory AML and MDS patients and targeting the innate immune system - either alone or in combination with adoptive NK cells - holds promise for these patients,” said Dr. Arndt Schottelius, CSO of Affimed. “Our data suggests that AFM28 engages NK cells to lyse CD123-positive leukemic blasts and leukemic stem cells. This is a critical step in achieving long-lasting remissions.”

Cryopreservation of NK cells pre-complexed with innate cell engagers (CAR-like NK cells)

Pre-complexing NK cells with the ICE® AFM13 generates chimeric antigen receptor (CAR)-like NK cells. Our preclinical assays demonstrate that anti-tumor efficacy of AFM13 pre-complexed NK cells was comparable to NK cells that were combined, though not pre-complexed with AFM13. Furthermore, the data showed that tumor cell lysis was enhanced compared to a Fc-enhanced antibody approach.

Retaining biological activity and specificity after cryopreservation is a prerequisite to enable the development of pre-complexed off-the-shelf CAR-like NK cell products. Our results confirmed that the efficacy of tumor cell lysis by AFM13-pre-complexed NK cells, was virtually unaffected after one cycle of cryopreservation at -80°C.

“The data are the basis to develop an off-the-shelf precomplexed NK cell product of our ICE® molecules and mark an important milestone,” said Dr. Arndt Schottelius, CSO of Affimed. “This is especially encouraging as we recently announced very promising data of the Phase 1-2 study at The University of Texas MD Anderson Cancer Center that evaluates AFM13 pre-complexed with NK cells in patients with CD30-positive lymphomas revealing a 100% objective response rate in 13 patients who received the recommended phase 2 dose.”

The poster will additionally be featured on December 15 at 5:00 pm ET in the virtual poster walk on *Natural Killer Cell-Based Immunotherapy* which can be accessed via the following link: https://ash.confex.com/ash/2021/webprogram/Session20655.html

The full posters are available on Affimed’s website under “Publications & Posters”. For more details about the ASH Virtual Annual Meeting please visit: https://www.hematology.org/meetings/annual-meeting.

About AFM28

AFM28, a tetravalent, bispecific CD123- and CD16A-binding ICE® developed on Affimed's ROCK® platform, is designed to bring a new immunotherapeutic approach to patients with CD123+ myeloid malignancies, including acute myeloid leukemia and myelodysplastic syndrome (MDS). It engages NK cells to initiate tumor cell killing via antibody-dependent cellular cytotoxicity (ADCC), even at low CD123 expression levels. Clinical development is planned as both monotherapy and in combination with allogeneic NK cells in patients with relapsed/refractory CD123+ leukemias.

About AFM13

AFM13 is a first-in-class ICE® that uniquely activates the innate immune system to destroy CD30-positive hematologic tumors. AFM13 induces specific and selective killing of CD30-positive tumor cells, leveraging the power of the innate immune system by engaging and activating NK cells and macrophages. AFM13 is Affimed's most advanced ICE® clinical program and is currently being evaluated as a monotherapy in a registration-directed trial in patients with relapsed/refractory peripheral T-cell lymphoma or transformed mycosis fungoides (REDIRECT). The study is actively recruiting, and additional details can be found at www.clinicaltrials.gov (NCT04101331).

In addition, The University of Texas MD Anderson Cancer Center is studying AFM13 in an investigator-sponsored phase 1 trial in combination with cord blood-derived allogeneic NK cells in patients with relapsed/refractory CD30-positive lymphomas (NCT04074746).

About Affimed N.V.

Affimed (Nasdaq: AFMD) is a clinical-stage immuno-oncology company committed to give patients back their innate ability to fight cancer by actualizing the untapped potential of the innate immune system. The company's proprietary ROCK® platform enables a tumor-targeted approach to recognize and kill a range of hematologic and solid tumors, enabling a broad pipeline of wholly-owned and partnered single agent and combination therapy programs. The ROCK® platform predictably generates customized innate cell engager (ICE®) molecules, which use patients' immune cells to destroy tumor cells. This innovative approach enabled Affimed to become the first company with a clinical-stage ICE®. Headquartered in Heidelberg, Germany, with offices in New York, NY, Affimed is led by an experienced team of biotechnology and pharmaceutical leaders united by a bold vision to stop cancer from ever derailing patients' lives. For more about the company's people, pipeline and partners, please visit: www.affimed.com.

Forward-Looking Statements

This press release contains forward-looking statements. All statements other than statements of historical fact are forward-looking statements, which are often indicated by terms such as “anticipate,” “believe,” “could,” “estimate,” “expect,” “goal,” “intend,” “look forward to,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “will,” “would” and similar expressions. Forward-looking statements appear in a number of places throughout this release and include statements regarding our intentions, beliefs, projections, outlook, analyses and current expectations concerning, among other things, the potential of AFM13, AFM24, and our other product candidates, the value of our ROCK® platform, our ongoing and planned preclinical development and clinical trials, our collaborations and development of our products in combination with other therapies, the timing of and our ability to make regulatory filings and obtain and maintain regulatory approvals for our product candidates, our intellectual property position, our collaboration activities, our ability to develop commercial functions, clinical trial data, our results of operations, cash needs, financial condition, liquidity, prospects, future transactions, growth and strategies, the industry in which we operate, the trends that may affect the industry or us, impacts of the COVID-19 pandemic, the benefits to Affimed of orphan drug designation and the risks, uncertainties and other factors described under the heading “Risk Factors” in Affimed’s filings with the SEC. Given these risks, uncertainties, and other factors, you should not place undue reliance on these forward-looking statements, and we assume no obligation to update these forward-looking statements, even if new information becomes available in the future.

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