



**FOR IMMEDIATE RELEASE**

## **Affimed Presents New Preclinical Data on Bi- and Trispecific Immune Cell Engagers at ASH**

*Heidelberg, Germany, December 6, 2016* - Affimed N.V. (Nasdaq: AFMD), a clinical stage biopharmaceutical company focused on discovering and developing highly targeted cancer immunotherapies, today announced the presentation of preclinical data from three studies at the 58<sup>th</sup> American Society of Hematology (ASH) Annual Meeting and Exposition 2016 in San Diego, California.

"We continue to generate data that further elucidate the mechanism of action of our drugs as well as the activation of NK-cells by our CD16A-engaging bispecific antibodies. Studies with our lead drug AFM13 showed that the combination with IL-2 or IL-15 had a synergistic effect on AFM13-mediated expansion, which is induced by an upregulation of the respective interleukin receptors on NK-cells," said Dr. Adi Hoess, CEO of Affimed. "In addition, we are working to overcome the hurdle represented by the limited number of tumor-specific targets for T- or NK-cell engagement by developing trispecific tetravalent antibodies, which show increased tumor cell selectivity.

### AFM13

On Saturday, December 3, the Company and its collaboration partner, the German Cancer Research Center (DKFZ), Heidelberg, presented a poster (Abstract #1764) sharing additional insights into the mechanism of action of lead product candidate AFM13, a CD30/CD16A-specific NK-cell engager. Expanding on previous studies demonstrating synergistic efficacy of AFM13 when combined with checkpoint modulation (e.g. anti-PD-1), the poster identifies other potential future candidates for AFM13 combination therapies, as well as biomarkers that may be predictive of NK-cell responses to AFM13 treatment.

*In vitro*, NK-cell cytotoxicity towards CD30+ tumor cells and IFN- $\gamma$  production were substantially increased in the presence of AFM13, and AFM13 was significantly more potent than a native anti-CD30 IgG1 antibody. A detailed analysis showed that interaction of NK-cells with AFM13-coated tumor cells up-regulated the expression of NK-cell surface receptors such as CD25, CD69 and CD137/4-1BB, as well as additional markers that may serve as NK-cell checkpoints. Importantly, AFM13-mediated CD16A engagement enhanced the potential of NK-cells for proliferation and

expansion when subsequently incubated with the cytokines IL-15 or IL-2. This effect was observed even in target cells resistant to naïve NK-cells and to NK-cells activated only with IL-2/IL-15.

In summary, the data presented at ASH demonstrates that AFM13 specifically enhances the cytotoxic, proliferative and cytokine-producing potential of NK-cells. In addition, the results indicate that the distinctive modulation of NK-cell receptors can be utilized to monitor NK-cell responses during AFM13 therapy and to select candidates for therapeutic combination strategies.

### AFM11

In a poster presented on Monday, December 5, Affimed along with its collaboration partners from University Hospital Wuerzburg, determined the effects of treatment history on T-cell engagement (Abstract #4130). Specifically, the researchers analyzed the activity of the CD19/CD3-specific TandAb AFM11 on T-cells derived from NHL patients after different chemotherapeutic regimens (R-Bendamustine, R-CHOP and HD-BEAM), compared to T-cells from healthy donors. Even though patient T-cells were significantly reduced in number after chemotherapy and displayed functional defects, AFM11 was able to activate them for potent target cell lysis with comparable efficacy to T-cells from healthy donors. Lower efficacy was only observed at limiting effector cell counts.

The study also reported that the type of prior chemotherapeutic regimen had an effect on AFM11-mediated T-cell engagement. While T-cells from patients treated with R-CHOP displayed responsiveness similar to T-cells from healthy donors, lower cytotoxic activity was measured for T-cells from R-Bendamustine and HD-BEAM pretreated patients.

In summary, T-cell-engaging immunotherapies such as bispecific T-cell-recruiting antibodies or chimeric antigen receptor T-cells (CAR-T) have emerged as highly active therapeutics in hematological malignancies and these results highlight the importance of taking the specifics of chemotherapeutic pretreatment into account in the planning of immuno-oncology trials.

### Trispecific Antibodies

In another poster on Monday, December 5, Affimed presented details on its trispecific antibody format being investigated in a multiple myeloma (MM) model system (Abstract #4513). TandAbs are tetravalent antibodies and thereby show bivalent binding to both cancer and immune cells. The Company has engineered trispecific tetravalent antibodies that redirect NK-cells to tumor cells co-expressing two surface antigens ('dual-targeting'), thereby leading to increased tumor cell selectivity. Due to its largely tumor cell-specific expression profile, B-cell maturation antigen (BCMA/CD269) has emerged as a promising target antigen for antibody-based therapies of MM. CD200 was selected as the second MM-expressed surface antigen found in the majority of patients. *In vitro*, the trispecific antibodies selectively engaged NK-cells through bivalent binding to CD16A and monovalent binding to both BCMA and to CD200. Binding to BCMA+/CD200+ cells and the resulting increase in avidity led to preferential lysis of antigen double-positive cells compared with antigen single-positive cells. These data suggest that dual-targeting may increase the therapeutic window compared to approaches targeting only one antigen.

## **About Affimed N.V.**

Affimed (Nasdaq: AFMD) engineers targeted immunotherapies, seeking to cure patients by harnessing the power of innate and adaptive immunity (NK- and T-cells). We are developing single and combination therapies to treat cancers and other life-threatening diseases. For more information, please visit [www.affimed.com](http://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, 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, expectations regarding 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 and the risks uncertainties and other factors described under the heading "Risk Factors" in Affimed's filings with the Securities and Exchange Commission. 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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