Antengene Presents Latest Preclinical Data of ATG-201 (CD19 x CD3 TCE) at ACR 2025

Shanghai and Hong Kong, PRC, October 27, 2025 — Antengene Corporation Limited (**"Antengene"**, SEHK: 6996.HK), a leading innovative, commercial-stage global biotech company dedicated to discovering, developing and commercialising first-in-class and/or best-in-class medicines for autoimmune disease, solid tumors and hematological malignancies indications, today announced that **the latest preclinical data of ATG-201 (CD19 x CD3 TCE) were presented in a Poster Presentation at the 2025 American College of Rheumatology (ACR) Annual Meeting, taking place from October 24th to October 29th in Chicago, IL, the United States.** ATG-201 is a lead program developed using AnTenGager™, the company's proprietary T-cell engager (TCE) platform which features "2+1" bivalent binding for low-expressing targets, steric hindrance masking, and proprietary CD3 sequences with fast on/off kinetics to minimize cytokine release syndrome (CRS) and enhance efficacy.

Details of the Poster Presentation:

ATG-201（CD19 x CD3 TCE）

Title: ATG-201, a Novel Steric Hindrance-based Masking CD19xCD3

上海市长宁区中山西路 1065 号 SOHO 中山广场 B 座 1206-1209 室
Suite 1206-1209, Building B, SOHO Plaza, 1065 West Zhongshan Road, Shanghai 200051, China
Tel: (86) 021 3250 1095
Fax: (86) 021 3250 1062
www.antengene.com

T-cell Engager (TCE) for the Treatment of B Cell-related Autoimmune Diseases

Abstract Number: 0001

Session: (0001-0018) B Cell Biology & Targets in Autoimmune & Inflammatory Disease Poster I

Date: Sunday, October 26

Time: 10:30 AM - 12:30 PM (Central Time)

Introduction: A "2+1" TCE Specifically Designed for Autoimmune Diseases

- CD19-targeted therapies, including CAR-T therapies and TCEs have demonstrated promising therapeutic potential in the treatment of autoimmune diseases. However, the clinical development of TCEs has been limited by suboptimal pharmacokinetics (PK), incomplete B cell depletion, and toxicity associated with CRS. **To address these challenges, Antengene leveraged its proprietary AnTenGager™ TCE platform to develop ATG-201, a novel "2+1" CD19 x CD3 TCE designed for B cell driven autoimmune diseases. ATG-201 incorporates steric hindrance masking technology and proprietary CD3 sequences with fast-on-fast-off kinetics, enabling effective B cell depletion with minimal risk of CRS.**
- In this study, ATG-201 was evaluated through a series of *in vitro* and

in vivo studies examining binding affinity, B cell depletion, cytokine release, anti-disease efficacy and developability. Safety and PK characteristics of ATG-201 were evaluated in mice and non-human primates (NHP).

Results: Overcoming Toxicities While Achieving Complete B Cell Depletion

- Cryo-electron microscopy (cryo-EM) analysis revealed that, in the absence of CD19 cross-linking, **the CD3 binding site is sterically masked by the constant region of the CD19-targeting Fab arm.** As a result, ATG-201 exhibits minimal binding to CD3+ T cell binding prior to CD19-crosslinking, and **only activates T cells in the presence of CD19+ cells**, thereby enabling precise, antigen-dependent immune activation.
- In ***in vitro* studies**, ATG-201 demonstrated stronger B cell depletion activity in peripheral blood mononuclear cells (PBMCs) derived from systemic lupus erythematosus (SLE) patient and healthy donors, while inducing substantially lower cytokine release compared to benchmark TCEs.
- In ***in vivo* studies** using CD34+ cells humanized NDG mice, a single dose of ATG-201 achieved complete and sustained B cell depletion in the blood, bone marrow and spleen, accompanied by reduced

cytokine release.

- Furthermore, **ATG-201 was shown to significantly reduce T cell exhaustion compared to first generation TCEs.** In a co-culture study using primary T cells and NALM6 leukemia cells with serial antigen restimulation on Days 7 and 14, ATG-201 induced significantly lower expression of exhaustion markers PD-1 and Tim-3 as measured by flow cytometry. **This reduced T-cell exhaustion underscores the advantages of the AnTenGager™ structure and novel CD3 binder, which limits both off-target and excessive on-target activation, preventing unnecessary prolonged T-cell stimulation.**
- The mouse surrogate CD19 x CD3 TCE demonstrated potent efficacy in both the MOG-EAE and MRL-lpr SLE mouse models, confirming its robust therapeutic potential. In NHPs, the monkey surrogate of ATG-201 achieved **deep and durable depletion of naïve B cells with a favorable safety profile, characterized by only a very mild and transient increase in cytokine levels.** These findings further support the differentiated profile of ATG-201 as a next-generation T-cell engager designed to combine potent efficacy with superior safety.

Conclusion

- ATG-201 demonstrates CD19-dependent CD3 binding and activation, effectively inducing B cell depletion and disease suppression both *in*

vitro and *in vivo.* With its favorable PK and safety profile, the data support further clinical evaluation of ATG-201 in B cell related autoimmune diseases. **Antengene plans to advance ATG-201 into clinical development in Q4 2025.**

About Antengene

Antengene Corporation Limited (**"Antengene"**, SEHK: 6996.HK) is a global, R&D-driven, commercial-stage biotech company focused on developing first-in-class/best-in-class therapeutics for diseases with significant unmet medical needs. Its pipeline spans from preclinical to commercial stages and includes several in-house discovered programs, including ATG-022 (CLDN18.2 ADC), ATG-037 (oral CD73 inhibitor), ATG-101 (PD-L1 × 4-1BB bispecific antibody), ATG-031 (CD24-targeting macrophage activator), and ATG-042 (oral PRMT5-MTA inhibitor).

Antengene has also developed AnTenGager™, a proprietary T cell engager 2.0 platform featuring "2+1" bivalent binding for low-expressing targets, steric hindrance masking, and proprietary CD3 sequences with fast on/off kinetics to minimize cytokine release syndrome (CRS) and enhance efficacy. These characteristics support the platform's broad applicability across autoimmune disease, solid tumors and hematological malignancies indications.

To date, Antengene has obtained 31 investigational new drug (IND) approvals in the U.S. and Asia, and submitted new drug applications (NDAs) in 11 Asia Pacific markets. Its lead commercial asset, XPOVIO® (selinexor), is approved in Mainland of China, Taiwan China, Hong Kong China, Macau China, South Korea, Singapore, Malaysia, Thailand, Indonesia and Australia, and has been included in the national insurance schemes in five of these markets (Mainland of China, Taiwan China, Australia, South Korea and Singapore).

Forward-looking statements

The forward-looking statements made in this article relate only to the events or information as of the date on which the statements are made in this article. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events. You should read this article completely and with the understanding that our actual future results or performance may be materially different from what we expect. In this article, statements of, or references to, our intentions or those of any of our Directors or our Company are made as of the date of this article. Any of these intentions

may alter in light of future development. For a further discussion of these and other factors that could cause future results to differ materially from any forward-looking statement, please see the other risks and uncertainties described in the Company's Annual Report for the year ended December 31, 2024, and the documents subsequently submitted to the Hong Kong Stock Exchange.

上海市长宁区中山西路 1065 号 SOHO 中山广场 B 座 1206-1209 室
Suite 1206-1209, Building B, SOHO Plaza, 1065 West Zhongshan Road, Shanghai 200051, China
Tel: (86) 021 3250 1095
Fax: (86) 021 3250 1062
www.antengene.com