# Antengene Presents Four Preclinical Posters at AACR 2024

Shanghai and Hong Kong, PRC, April 6, 2024 — Antengene Corporation Limited ( **"Antengene"** , SEHK: 6996.HK), a leading innovative, commercial-stage global biopharmaceutical company dedicated to discovering, developing and commercializing first-in-class and/or best-in-class medicines for cancer, today announced the **presentation of four preclinical posters at the 2024 American Association for Cancer Research Annual Meeting (AACR 2024),** taking place from April 5th to April 10th at the San Diego Convention Center in San Diego, California, the United States. The posters showcased four of Antengene's high-potential emerging programs, including **ATG-042, tracking to a H1 2025 IND filing; ATG-022, in Phase II dose expansion studies in China and Australia; AnTenGager™ platform, Antengene's proprietary T-cell engager (TCE) platform; and ATG-102, which could be the first IND candidate from AnTenGager™ platform.**

ATG-042, an oral small molecule MTAP$^{null}$-selective PRMT5 inhibitor holding the promise as a best-in-class drug. Study results showed that

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ATG-042 has the potential to elegantly target tumor cells while sparing healthy cells, with an attractive developability profile. ATG-022 is an Claudin 18.2 antibody-drug conjugate. The detailed updated data of the Claudin 18.2 (CLDN18.2) companion diagnostic antibody candidate for ATG-022 showed that the antibody has higher sensitivity compared to commercially available kits. AnTenGager™, Antengene's proprietary TCE platform with the ability to induce target-dependent T-cell activation, has potent anti-tumor effects and lower risk of cytokine release syndrome (CRS). ATG-102, a LILRB4 x CD3 TCE, is being developed for the treatment of acute myeloid leukemia (AML).

**Details of the posters:**

**ATG-042 (MTAP$^{null}$-selective PRMT5 Inhibitor)**

**Title:** Preclinical characterization of ATG-042, a novel MTAP$^{null}$-selective PRMT5 inhibitor

**Abstract:** 4592

**Session Category:** Experimental and Molecular Therapeutics

**Session Title:** HDAC and Methyltransferase Inhibitors

**Date:** April 9, 2024

**Time:** 9:00 AM - 12:30 PM (Pacific Time)

12:00 AM - 3:30 AM, April 10, 2024 (Beijing Time)

**Location:** Poster Section 24

- This preclinical study was designed to test the *in vitro/in vivo* efficacy, and preclinical pharmacokinetic (PK) properties of ATG-042.
- According to the results, ATG-042 demonstrated a potent and selective inhibitory effect on the proliferation of MTAP knockout cells, showed high permeability, good metabolic stability, a low risk of drug-drug interaction (DDI), and high oral bioavailability. Importantly, ATG-042 demonstrated good brain penetrability. In CDX models, ATG-042 also potently and selectively inhibited tumor growth without inducing weight loss.
- These data suggest that ATG-042 is an orally administered, $MTAP^{null}$-selective PRMT5 inhibitor with potent efficacy against MTAP-null tumors, as well as demonstrating good tolerability and favorable preclinical PK profiles.

**Companion Diagnostic Antibody for ATG-022 (Claudin 18.2 ADC)**

**Title:** Development of a novel companion diagnostic immunohistochemistry antibody for Claudin 18.2-targeted therapies

**Abstract:** 1032

**Session Category:** Clinical Research

**Session Title:** Diagnostic Biomarkers 1

**Date:** April 7, 2024

**Time:** 1:30 PM - 5:00 PM (Pacific Time)

4:30 AM - 8:00 AM, April 8, 2024 (Beijing Time)

**Location:** Poster Section 42

- Despite the substantial correlation between the expression of CLDN18.2 and the efficacy of therapies targeting CLDN18.2, no companion diagnostic (CDx) antibodies specific to CLDN18.2 have been approved to date. This poster presents the discovery and validation of a novel, highly sensitive immunohistochemistry (IHC) antibody that selectively identifies CLDN18.2.
- According these data, the monoclonal antibody (mAb) clone 43F11 showed positive cell surface IHC staining on CLDN18.2-expressing cells following fixation but demonstrated no staining on CLDN18.1-expressing cells. Moreover, the 43F11 antibody accurately identified the expression level of CLDN18.2 in an IHC

assay, utilizing tumor tissues and patient-derived xenograft (PDX) samples with predetermined expression levels of CLDN18.2. When compared to the commercially available IHC antibody EPR19202, the 43F11 antibody demonstrated greater sensitivity, enabling positive staining on cancer tissues with significantly lower expression levels of CLDN18.2.

- These data suggest that the 43F11 antibody possesses superior sensitivity compared to the benchmark antibody and has the potential to serve as an effective patient stratification tool.

**AnTenGager™ Platform**

**Title:** AnTenGager™, a novel "2+1" T cell engager platform, enables conditional T cell activation with reduced risk of CRS

**Abstract:** 6343

**Session Category:** Clinical Research

**Session Title:** Antibodies 2

**Date:** April 9, 2024

**Time:** 1:30 PM - 5:00 PM (Pacific Time)

4:30 AM - 8:00 AM, April 10, 2024 (Beijing Time)

**Location:** Poster Section 41

- This poster presents an in-depth overview of the design and mechanism of action for the proprietary AnTenGager™ T cell engager (TCE) platform. These TCEs are specifically designed to produce an anti-cancer effect with a lower risk of systemic CD3 activation and cytokine release syndrome (CRS), potentially paving the way for use in solid tumors.
- AnTenGagers TCE constructs are designed to induce cytotoxicity by forming a T cell receptor (TCR)-independent immune synapse. AnTenGagers do this by simultaneously binding tumor associated antigens (TAAs) on cancer cells and specific conformational epitopes on CD3+ T-cells.
- Presented data show that AnTenGagers are able to effectively bind to specific CD3 confirmational epitopes and demonstrate higher cytotoxicity compared to benchmark compounds.
- AnTenGagers are compatible with a range of TAAs, and that AnTenGagers have improved cytotoxicity compared to benchmark compounds, as demonstrated in cellular assays and a murine myeloma model. Data from the murine models also showed that AnTenGagers resulted in significantly lower concentrations of pro-inflammatory cytokines, further supporting a lower risk of CRS.

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- AnTenGagers also have good "developability" properties based on good stability under stress conditions.
- Together, these data support the potential for AnTenGagers to be used in solid tumors, based on their ability to simultaneously bind TAAs and specific CD3+ confirmational epitopes, resulting in higher TAA-dependent cytotoxicity compared to benchmarks and the reduced risk of CRS, opening the door to a broad new class of cancer therapies.

**ATG-102 (LILRB4 x CD3 T Cell Engager)**

**Title:** ATG-102, a novel LILRB4 x CD3 T cell engager, targeting two non-overlapping epitopes of LILRB4, for the treatment of monocytic AML

**Abstract:** 2372

**Session Category:** Clinical Research

**Session Title:** Antibodies 1

**Date:** April 8, 2024

**Time:** 9:00 AM - 12:30 PM (Pacific Time)

12:00 AM - 3:30 AM, April 9, 2024 (Beijing Time)

**Location:** Poster Section 38

- The use of TCEs to treat AML (acute myeloid leukemia) has been limited the difficulty in identifying specific antigens that are expressed on AML and leukemic stem cells but not normal hematopoietic stem cells. The preferential expression of LILRB4 on M4/M5 subtype acute myeloid leukemia (AML) cells renders it a highly attractive target for the treatment of AML. These data show that an AnTenGager™ based TCE, which binds to two distinct epitopes of the LILRB4 receptor, can induce potent T-cell dependent cellular cytotoxicity (TDCC) to produce potent anti-tumor efficacy *in vitro* and *in vivo*.
- The poster outlines the design and structural characteristics of ATG-102 comprised of two LILRB4 epitopes and an anti-CD3 single chain fragment variable (scFv) inserted in the hinge region on one of the LILRB4 heavy chains. Characterization data include:
    - **Binding epitope and affinity studies** showing that ATG-102 binds to the target TAA epitopes as well as conformational CD3 epitopes.
    - **T cell binding and T-cell dependent cytotoxicity assays** show that compared to the benchmark, ATG-102 demonstrated less non-specific T cell binding or activation,

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whilst inducing more potent TDCC against LILRB4+cells and enhanced *in vivo* anti-AML efficacy.

- These data highlight the structural characteristics of ATG-102 and demonstrate potent *in vitro* and *in vivo* anti-tumor efficacy which support further clinical evaluation of ATG-102.

**About Antengene**

Antengene Corporation Limited (**"Antengene"**, SEHK: 6996.HK) is a leading commercial-stage R&D-driven global biopharmaceutical company focused on the discovery, development, manufacturing and commercialization of innovative first-in-class/best-in-class therapeutics for the treatment of hematologic malignancies and solid tumors, in realizing its vision of **"Treating Patients Beyond Borders"**.

Since 2017, Antengene has built a pipeline of 9 oncology assets at various stages going from clinical to commercial, including 6 with global rights, and 3 with rights for the APAC region. To date, Antengene has obtained 29 investigational new drug (IND) approvals in the U.S. and Asia, and submitted 11 new drug applications (NDAs) in multiple Asia

Pacific markets, with the NDA for XPOVIO® (selinexor) already approved in Mainland of China, Taiwan China, Hong Kong China, Macau China, South Korea, Singapore and Australia.

**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, 2023, and the documents subsequently submitted to the Hong Kong Stock Exchange.

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