

# Phase I study of AMT-676, an anti-CDH17 antibody-drug conjugate, in patients with advanced CRC and other GI tumors

Charlotte Lemech<sup>1</sup>, Ruihua Xu<sup>2</sup>, Danyun Ruan<sup>3</sup>, Andrew Parsonson<sup>4</sup>, Warren Joubert<sup>5</sup>, Prachi Bhav<sup>6</sup>, Rajiv Shinde<sup>7</sup>, Xuefeng Fang<sup>8</sup>, Neel Gandhi<sup>9</sup>, Junli Xue<sup>10</sup>, Drew Rasco<sup>11</sup>, Hao Liu<sup>12</sup>, Yawen Gao<sup>13</sup>, Bo Zhang<sup>14</sup>, Xiaoyan Xing<sup>15</sup>, Shu-Hui Liu<sup>16</sup>, Xun Meng<sup>17</sup><sup>1</sup>National Clinical Research Unit for Gastrointestinal Cancer, Shanghai, China; <sup>2</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>3</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>4</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>5</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>6</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>7</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>8</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>9</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>10</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>11</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>12</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>13</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>14</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>15</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>16</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China; <sup>17</sup>Department of Medical Oncology, Anhui University Cancer Hospital, Hefei, China

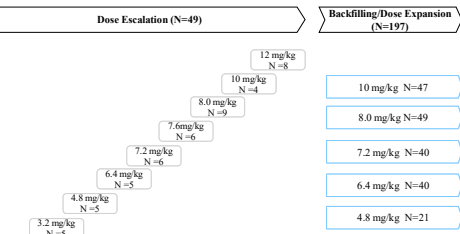
## Background

- Cadherin-17 (CDH17) is highly expressed in colorectal cancer (CRC) and multiple gastrointestinal (GI) malignancies.
- AMT-676 is a novel antibody-drug conjugate (ADC) comprising a humanized anti-CDH17 IgG1 antibody conjugated to the topoisomerase I inhibitor exatecan (DAR=4) via a proprietary T-moiety linker.
- AMT-676 demonstrated robust anti-tumor efficacy in preclinical studies representing a wide range of solid tumor indications, including but not limited to colorectal cancer, gastric cancer, esophageal adenocarcinoma, cholangiocarcinoma, pancreatic ductal cancers, and neuroendocrine tumors.
- This first-in-human study evaluated the safety, pharmacokinetics (PK), and preliminary antitumor activity of AMT-676 in patients with advanced GI tumors.

## Methods

This ongoing open-label Phase I/II study (NCT06400485) is being conducted in Australia, China, and the US. AMT-676 was administered IV Q3W at doses from 1.6 to 12 mg/kg using a Bayesian optimal interval (BOIN) design. Primary objectives were safety and tolerability; secondary objectives included PK and preliminary efficacy. Tumor CDH17 expression was retrospectively assessed by IHC. Backfilling enrollment was initiated at selected dose cohorts.

Figure 1: Study Design



## Results

- As of May 22, 2026, 246 patients with CRC and other GI tumors have been treated with AMT-676 across AUS (63.0%), CN (27.6%) and US (9.3%). Patient demographics are Caucasian (58.1%), Asian (37.0%) and Others (4.9%).
- Among 191 CRC patients, median prior lines = 3 (range 1-9); 54.5% are Caucasian.
- 68.6% had liver metastasis and 75.9% had lung metastases at baseline.
- 92.7% had received prior Irinotecan, 98.4% had received Oxaliplatin, 33.0% had received TAS-102, indicating a heavily pretreated population.

Table 1: Overall Patients Demographics

| Characteristics                          | Colorectal Cancer (N=191) | Others (N=55) | Total (N=246) |
|------------------------------------------|---------------------------|---------------|---------------|
| Age in years, median (range)             | 56.0 (27-78)              | 61.0 (34-88)  | 57.0 (25-83)  |
| Sex, n (%)                               |                           |               |               |
| Male                                     | 106 (55.5%)               | 39 (70.9%)    | 145 (58.9%)   |
| Female                                   | 85 (44.5%)                | 16 (29.1%)    | 101 (41.1%)   |
| ECOG, n (%)                              |                           |               |               |
| 0                                        | 100 (52.4%)               | 27 (49.1%)    | 127 (51.6%)   |
| 1                                        | 91 (47.6%)                | 28 (50.9%)    | 119 (48.4%)   |
| Race, n (%)                              |                           |               |               |
| Asian                                    | 76 (39.8%)                | 15 (27.3%)    | 91 (37.0%)    |
| Caucasian                                | 104 (54.5%)               | 39 (70.9%)    | 143 (58.1%)   |
| Others or Unknown                        | 11 (5.8%)                 | 1 (1.8%)      | 12 (4.9%)     |
| Median number of prior therapies (range) | 3.0 (1-9)                 | 2.0 (1-6)     | 3.0 (1-9)     |

Table 2: CRC Patients Demographics

| Characteristics                             | Total (N=191)<br>% in all CRC |
|---------------------------------------------|-------------------------------|
| Primary Location                            |                               |
| Colon, left                                 | 80 (41.9%)                    |
| Colon, right                                | 37 (19.4%)                    |
| Rectum                                      | 71 (37.2%)                    |
| Primary site unknown                        | 3 (1.6%)                      |
| Metastatic Site                             |                               |
| Lung metastases                             | 145 (75.9%)                   |
| Liver metastases                            | 131 (68.6%)                   |
| Peritoneal metastases                       | 46 (24.1%)                    |
| Biomarker                                   |                               |
| KRAS mutation                               | 104 (54.5%)                   |
| NRAS mutation                               | 12 (6.3%)                     |
| BRAF mutation                               | 13 (6.8%)                     |
| MSS                                         | 176 (92.1%)                   |
| Prior therapies                             |                               |
| Irinotecan                                  | 177 (92.7%)                   |
| Oxaliplatin                                 | 188 (98.4%)                   |
| TAS-102 (tepiratide/trifluoridine)          | 63 (33.0%)                    |
| Anti-EGFR antibody (cetuximab, panitumumab) | 83 (43.5%)                    |
| Anti-VEGF antibody (bevacizumab)            | 157 (82.2%)                   |

## Results

### Efficacy

- Among efficacy-evaluable CRC patients across doses 7.2-12 mg/kg (N=100), the objective response rate (ORR) was 20% (17 confirmed partial responses [PRs] and 3 unconfirmed PRs with the patients still on treatment), and the disease control rate (DCR) was 91% (Table 3).
- At 8 mg/kg (N=47), ORR was 26% with 25 patients remaining on treatment. Data for the 10-12 mg/kg cohorts are preliminary.
- Responses were observed irrespective of CDH17 expression levels in CRC patients.
- The half-life of AMT-676 was 4-6 days, consistent with other clinical ADCs and supportive of Q3W administration.
- Patients with RAS wild-type achieve a higher ORR compared with those harboring RAS mutations. (Figure 5).

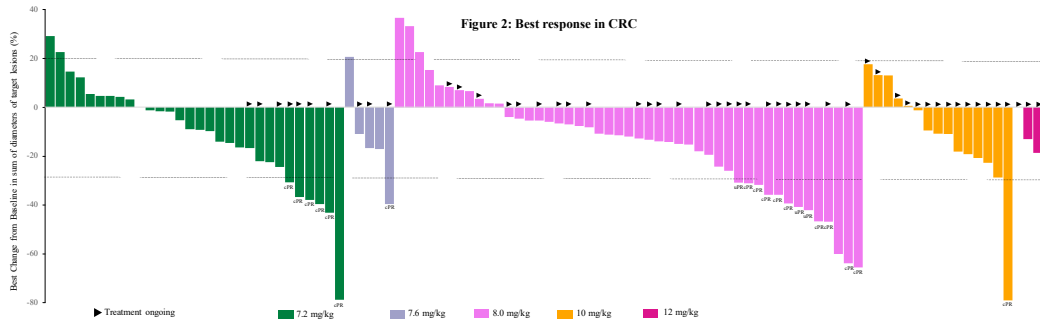


Figure 3: Swimmer plot in CRC

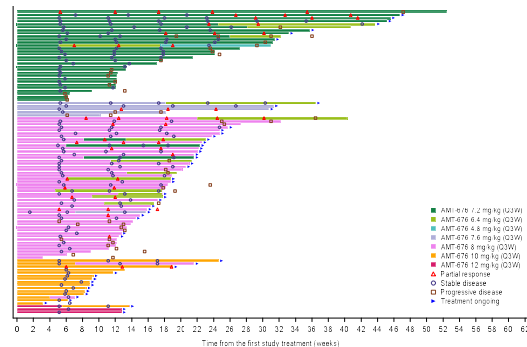


Table 3: Responses in CRC

|                                | 7.2 mg/kg (N=30) | 7.6 mg/kg (N=5) | 8 mg/kg (N=47) | 10 mg/kg (N=15) | 12 mg/kg (N=3) | Total (N=100) |
|--------------------------------|------------------|-----------------|----------------|-----------------|----------------|---------------|
| ORR (incl. unconfirmed), n (%) | 6 (20)           | 1 (20)          | 12 (26)        | 1 (7)           | 0              | 20 (20)       |
| Confirmed ORR, n (%)           | 6 (20)           | 1 (20)          | 9 (19)         | 1 (7)           | 0              | 17 (17)       |
| DCR, n (%)                     | 27 (90)          | 4 (80)          | 42 (89)        | 15 (100)        | 3 (100)        | 91 (91)       |
| Median follow-up time, month   | 4.3              | 5.6             | 4              | 1.4             | 1.5            | 3.2           |

Figure 4: PK profile of AMT-676

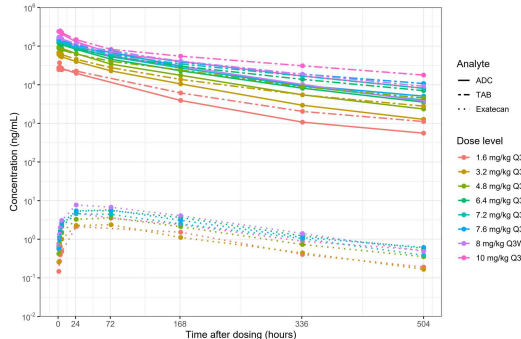
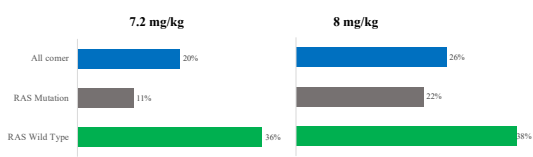


Figure 5: Responses by RAS status



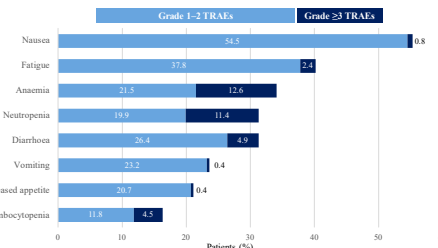
## Safety

- The most common TRAEs were gastrointestinal and hematologic toxicities, mostly mild and clinically manageable.
- The most frequent reasons for dose modifications were neutropenia, followed by anaemia and thrombocytopenia.
- One treatment-related Grade 5 event (neutropenic sepsis) occurred at 10 mg/kg after a single 1000 mg dose in a CRC patient.
- Only one Grade 2 pneumonitis event was observed at 8 mg/kg of the entire study.
- One DLT each occurred at the 8 mg/kg and 12 mg/kg cohorts, with Grade 3 colitis and febrile neutropenia in the respective dose groups.
- MTD was not reached after escalated to 12mg/kg.

Table 4: Safety Summary

| N (%)                               | Total (N = 246) |
|-------------------------------------|-----------------|
| Any TEAE                            | 237 (96.3%)     |
| Grade ≥3                            | 125 (50.8%)     |
| Treatment-related TEAE (TRAE)       | 230 (93.5%)     |
| Grade ≥3                            | 72 (29.3%)      |
| Grade 4                             | 12 (4.9%)       |
| Grade 5                             | 1 (0.4%)        |
| Any SAE                             | 86 (35.0%)      |
| Treatment-related SAE               | 28 (11.4%)      |
| TRAEs leading to dose modifications |                 |
| Treatment discontinuation           | 4 (1.6%)        |
| Treatment cycle delay               | 51 (20.7%)      |
| Dose reduction                      | 28 (11.4%)      |

Figure 6: TRAEs of Any Grade Occurring in ≥10% of Patients



## Conclusion

- AMT-676, a first-in-class CDH17 ADC, is highly differentiated with its DAR4 exatecan payload design to overcome irinotecan resistance while balancing potency and safety.
- Dose escalation/optimization ongoing with 246 patients enrolled in predominantly Caucasian population (58.1%). 191/246 are CRC patients.
- Favorable safety profile with low Gr3+ TRAE rates supports dose optimization and future combination strategies.
- Promising response rates in CRC (≥20% ORR at doses ≥7.2 mg/kg), with a clear dose-response relationship. Emerging response enrichment in RAS wild-type patients (≥35% ORR). Preliminary efficacy also observed in other GI tumors.
- Data collected so far strongly support continuing clinical development of AMT-676 in the planned randomized Phase 3 trial for CRC.
- A clinical trial of AMT-676 in combination with chemotherapy in front-line CRC setting is ongoing.

**Declaration of Interests**  
Dr. Charlotte Lemech has no conflict of interests to declare

**Contact Email**  
Contact us at [info@multitudetherapeutics.com](mailto:info@multitudetherapeutics.com) for questions or comments

**Acknowledgments**  
We would like to thank the patients and their families, as well as the investigators, clinical research personnel and staff for their participation and contributions to the trials. These studies were sponsored by Multitude Therapeutics.