**BACKGROUND**

- Osemitamab (TST001) is a potential best-in-class antibody with improved claudin 18.2 (CLDN18.2) affinity and enhanced antibody-dependent cell-mediated cytotoxicity effect, leading to anti-tumor activity in CLDN18.2 positive gastric cancer animal models, including those with low to medium levels of expression.
- Animal models have demonstrated strong synergistic anti-cancer activities among osemitamab, anti-PD-1 antibodies and chemotherapies, regardless of the PD-L1 CPS levels.
- Promising efficacy of osemitamab plus CAPOX chemotherapy as first-line treatment for G/EJ cancer has been observed in cohort C of TranStar102, which was reported previously at ASCO and ESMO-GI.

**METHODS**

- Cohort G from Transtar102 study (NCT04495296) was designed to explore the efficacy and safety of osemitamab plus nivolumab as first-line treatment for advanced G/EJ cancer (Figure 1), with a safety lead-in and expansion phase. Patients were alternatively allocated to 3 or 6mg/kg at expansion phase. Eligible patients include HER2 negative or unknown, unresectable locally advanced or metastatic G/EJ cancer, regardless of CLDN18.2 or PD-L1 expression. CLDN18.2 and PD-L1 status were analysed retrospectively using IHC 14G11 LDT assay and PD-L1 IHC 28 pharmDx at a central laboratory. The CLDN18.2 expression was divided into three subgroups: H/M (high/medium), L (low) and R (rest) according to the tumor cells showing membranous CLDN18.2 staining per 20%. Regardless of CLDN18.2 staining, hypoproteinaemia, and vomiting, and most of them were of grade 1 or 2 (Table 1).

**RESULTS**

- As of April 18, 2024, 82 patients have been dosed with a median follow-up of 12.6 months, 40 patients at 3mg/kg, 42 patients at 6mg/kg. The study is still ongoing.

- Of the 82 patients, 32 were with CLDN18.2 H/M expression, 22 with L expression and, 28 were in the Rest subgroup with CLDN18.2 expression lower than L (n=7), negative (n=19) or unknown (n=2). 66 patients had PD-L1 CPS<5.

- The baseline demographics of patients across CLDN18.2 expression are generally similar (Table 1).

- The safety profile of the triplet is generally consistent with the safety data of osemitamab plus CAPOX combination in first-line G/EJ cancer patients presented previously [Clin Oncol 41, 2023; suppl: 16; abst 4046], which was mainly characterized by manageable on-target-off tumor effects, including nausea, hypoalbuminemia, and vomiting, and most of them were of grade 1 or 2 (Table 2).