Phase 1/2 study of PRO1160, a CD70-directed antibody-drug conjugate, in patients with advanced solid tumors and hematologic malignancies

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Background and Rationale

- CD70 is a tumor surface antigen that is highly expressed in many hematological and solid malignancies and only transiently expressed on activated T and B cells and mature DCL
- CD70 facilitates immune evasion and tumor progression via its interaction with CD27 and downstream signaling pathways
- CD70 is expressed heterogeneously in the majority of renal cell carcinoma (RCC), non-Hodgkin lymphoma (NHL), and nasopharyngeal carcinoma (NPC)

Study Design

- **PRO1160-001** is an actively enrolling, first-in-human, open-label, multicenter study enrolling subjects from the US, with future enrollment in China planned
- CD70 is retrospectively tested
- PRO1160 is administered IV on Day 1 of a 21-day cycle and may be continued until disease progression, unacceptable toxicity, or other reason for treatment discontinuation

Part A: Dose escalation and dose level expansion

- Dose-escalation in multiple tumor types
- Dose escalation may proceed separately for RCC/NPC and NHL, due to differences in prior therapies that may lead to different recommended Phase 2 doses (RP2D)

Part B: Tumor-specific cohort expansion

- MTD=maximum tolerated dose
- RCC=renal cell carcinoma
- NHL=non-Hodgkin lymphoma
- NPC=nasopharyngeal carcinoma

Study Population

- Key Inclusion Criteria
  - Adults with histologically or cytologically confirmed metastatic or locally advanced and/or metastatic solid tumors
  - Identify the MTD if reached, and the RP2D of PRO1160 in patients with locally advanced and/or metastatic solid tumors

- Key Exclusion Criteria
  - Prior CD70-directed therapy
  - History of another malignancy within 3 years
  - Known active central nervous system (CNS) metastases
  - HIV infection, active hepatitis B or hepatitis C infection

Study Status

- PRO1160-001 is actively enrolling at US sites
- Sites in China are in the activation phase

References

b. Taneri et al. 2014, Invest New Drugs; 32:1246
c. Ryan et al. 2010, Brit J Cancer; 103:676
d. Wood et al. 2015, Cancer Res 75 (15 Supplement):1686
e. Apollosgeneusis et al. 1995, Am J Pathol; 147:1152
f. Wang et al. 2022, Cancer Res 82 (12 Supplement):1759