6-2-2022

TRUST-II: A global phase II study for taletrectinib in ROS1 fusion-positive lung cancer and other solid tumors

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TPS8601 **Poster Session**

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Background: Taletrectinib (AB-106/DS-6051b) is a next-generation, brain-penetrant, ROS1/ NTRK tyrosine kinase inhibitor (TKI) and has shown clinically meaningful effect and safety profile in ROS1+ Non-Small Cell Lung Cancer (NSCLC) patients in phase 1 studies (Fujiwara et al, Oncotarget 2018; 9(34): 23729-23737; Ou et al, JTO Clin Res Rep. 2020 Oct 21;2(1):100108). Taletrectinib has also demonstrated activity against ROS1 G2032R resistance mutation and CNS metastases in the ongoing phase 2 TRUST study (NCT04395677) in China. Also, taletrectinib has shown preliminary efficacy against NTRK positive solid tumors in an ongoing phase 2 study (NCT04617054). **Methods:** TRUST-II study (NCT04919811) is a phase 2, global, multicenter, open-label, single-arm multi-cohort study evaluating the efficacy and safety of taletrectinib for *ROS1* fusion-positive advanced metastatic NSCLC and other solid tumors. Taletrectinib will be given at 600 mg once daily in 21-day cycle. The patients with ROS1 fusions detected by local tests are eligible to enroll with retrospective confirmation by a central laboratory. The study consists of four cohorts: cohort 1: systemic chemotherapy naïve or ≤ one prior line and ROS1 TKI naïve NSCLC (N = 53); cohort 2: previously treated with one ROS1 TKI (crizotinib or entrectinib) and with progression who are either chemotherapy naïve or ≤ one line of platinum and/or pemetrexed based therapy for NSCLC (N = 46); cohort 3: ≤ 2 prior ROS1 TKIs and with progression who are either chemotherapy naïve or ≤ 2 lines of platinum and/or pemetrexed based therapy for NSCLC (N = 10); and cohort 4: systemic chemotherapy naïve or ≤ 2 prior lines of chemotherapy, but ROS1-TKI naïve ROS1 positive solid tumor other than NSCLC (N = 10). The primary endpoint is objective response rate (ORR) (RECIST v1.1) by independent review committee (IRC) assessment for cohorts 1 and 2. Key secondary endpoints include IRC-assessed duration of response, IRC-assessed intra-cranial ORR, progression free survival (PFS), overall survival (OS), and safety. This study is currently recruiting in Japan, Republic of Korea, and USA. Additional accrual is planned in Canada, China, and European Union. Clinical trial information: NCT04919811. Research Sponsor: AnHeart Therapeutics Inc.