CLINICAL STUDY MER-XMT-1536-3 (UPNEXT)
SUMMARY ATTACHMENT

DATE: 19 March 2024

The purpose of this document is to post result-related information via a summary attachment for the MER-XMT-1536-3 clinical study.

Reference is made to the press release dated July 27th 2023, in which Mersana announced that the UPLIFT clinical trial of XMT-1536 in platinum-resistant ovarian cancer did not meet its primary endpoint and that the Sponsor was discontinuing further development of XMT-1536.

UPLIFT, within study MER-XMT-1536-1 (EUDRACT 2020-000630-17), was a single-arm clinical trial that enrolled platinum-resistant ovarian cancer patients with one to four prior treatment regimens. The primary endpoint for UPLIFT was the investigator-assessed objective response rate (ORR) in the NaPi2b-positive population (defined by a tumor proportion score (TPS) of ≥75%). Based on the May 31, 2023 data cutoff date, the ORR by investigator was 15.6% (10.0%, 22.7%) in the NaPi2b-positive population (n=141); the lower bound of the confidence interval for the primary endpoint did not meet the goal of excluding a 12% ORR seen with standard-of-care single-agent chemotherapy.

Based on the results of the primary analysis of UPLIFT, the Sponsor made a decision to terminate the XMT-1536 clinical development program and as such, the MER-XMT-1536-3 clinical study was terminated early in September 2023.

It is noted that globally, at the time of this early termination of MER-XMT-1536-3, only 20 patients were enrolled (United States (n=19) and Australia (n=1)). All patients have discontinued treatment and the last patient last visit was 29 Sep 2023.

Given the limited number of patients enrolled, the Sponsor is unable to carry out the primary analysis for the MER-XMT-1536-3 clinical study.

A summary of the results of 20 patients are reflected in the Clinical Study Report synopsis, which is below.

Tel: 617.498.0020 · Fax: 617.498.0109
840 Memorial Drive, Cambridge, MA 02139 · www.mersana.com

SYNOPTIC SUMMARY

Name of Sponsor/Company: Mersana Therapeutics, Inc.	
Name of Investigational Product: Upifitamab rilsodotin (XMT-1536)	**Name of Active Ingredient:** XMT-1536 Antibody-drug conjugate
Title of Study: A Phase 3, Randomized, Double-blind, Placebo-controlled, Multicenter Study of upifitamab rilsodotin (XMT-1536) as Post-Platinum Maintenance Therapy for Participants with Recurrent, Platinum-Sensitive Ovarian Cancer (UP-NEXT)	
Study Number: MER-XMT-1536-3	
Study Phase: 3	
Study Initiation Date:	03 October 2022 (date the first participant was randomized)
Study Completion Date:	29 September 2023 (last participant last visit) 09 October 2023 (date of database lock)
Report Date:	15 March 2024
Investigational Product, Dosage, and Mode of Administration: XMT-1536 30 mg/m2, capped at body surface area (BSA) 2.2 m2, once every 28 days (q28d). XMT-1536 was dosed according to BSA; calculation will occur following each institution's standard practice. Refer to the full protocol for complete information.	
Reference Therapy, Dosage, and Mode of Administration: Placebo, IV	
Study Design and Methodology: Study MER-XMT-1536-3 was a Phase 3 randomized, double-blind, placebo-controlled, multicenter study of XMT-1536 as post-platinum maintenance therapy for participants with recurrent platinum-sensitive ovarian cancer, named UP-NEXT. This study, sponsored by Mersana Therapeutics, Inc., was conducted in compliance with the International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (ICH) and Good Clinical Practices (GCP), including archiving of essential documents and adherence to the ethical principles of the Declaration of Helsinki. XMT-1536 is an antibody-drug conjugate targeting NaPi2b, a sodium-dependent phosphate transport protein expressed in various cancers, including ovarian cancer. The study aimed to evaluate the safety and efficacy of XMT-1536 in improving progression-free survival (PFS) compared to placebo in a maintenance setting post-platinum therapy.	
Study Summary and Conclusions: In July 2023, Mersana announced that that the UPLIFT pivotal cohort in study MER-XMT-1536-1 did not meet its primary endpoint. Study MER-XMT-1536-1 was a single-arm clinical trial that enrolled platinum-resistant ovarian cancer patients with one to four prior treatment regimens to treatment with XMT-1536. The primary endpoint for the UPLIFT cohort was investigator-assessed objective response rate (ORR) in the NaPi2b-positive population (defined by a tumor proportion score (TPS) of ≥75%). Following the primary analysis of the UPLIFT Cohort, Mersana decided to terminate the XMT-1536 clinical development program. As a result, the MER-XMT-1536-3 clinical study was terminated early in September 2023. Study MER-XMT-1536-3 included 20 participants, 11 randomized to XMT-1536 (1 participant was randomized but not dosed) and 9 randomized to placebo. All participants were female, with a median	

age of 70 years. The participants were primarily White (95%) and Not Hispanic or Latino (90%). All participants were either post-menopausal or not of childbearing potential.

Participants were stratified based on their response to the last platinum-based regimen. Most had received 2 prior lines of systemic therapy (80%) and over half of the participants had previously been treated with a PARPi (55%).

At study termination, all 20 participants who had been randomized were discontinued from the study treatment due to the sponsor's decision to terminate the study, not because of treatment efficacy or safety concerns. Of these, 19 participants had received at least one dose of the study drug (upifitamab rilsodotin or placebo). Additional reasons for treatment discontinuation among all participants enrolled included adverse events (5%), progressive disease (30%), and withdrawal of consent (10%).

TEAEs were observed in all participants (n=19; 100%). The majority of TEAEs observed were Grade 1 and Grade 2 severity overall. Grade 3 TEAEs were observed in 21.1% of participants overall; the rates were the same between both arms. Only 1 Grade 4 event was reported (platelet count decreased in the XMT-1536 arm), and no Grade 5 events were reported. Treatment-related AEs were observed in 78.9% of participants overall. One participant in the XMT-1536 arm developed treatment-emergent AE Grade 2 pneumonitis leading to study treatment discontinuation.

No events of infusion-related reactions or Grade 3 fatigue, nausea, or vomiting were reported. There was 1 death reported while on study due to progressive disease, which was in the placebo group; this death was considered unrelated to study treatment and not an adverse event.

Although the number of participants was limited, treatment was generally well-tolerated, with the majority of TEAEs and treatment related AEs ≤Grade 3 in severity. Only one participant discontinued due to an adverse event.