Mersana Announces First Patient Dosed with XMT-1536 in Phase 1 Study in Patients with NaPi2b-Expressing Tumors

December 12, 2017

Trial to Study Patients in Ovarian, NSCLC and Other Cancers

XMT-1536 is Second Dolaflexin Antibody Drug Conjugate to Enter Clinical Trials

CAMBRIDGE, Mass., December 12, 2017 -- Mersana Therapeutics, Inc. (NASDAQ:MRSN), a clinical-stage biopharmaceutical company focused on discovering and developing a pipeline of antibody drug conjugates (ADCs) based on its proprietary Dolaflexin® platform, today announced dose administration for the first patient in a Phase 1, open-label, dose-escalation and expansion study of XMT-1536. XMT-1536 is a first-in-class ADC targeting NaPi2b, a clinically validated ADC target broadly expressed in epithelial ovarian cancer and non-squamous non-small cell lung cancer (NSCLC), as well as a number of other tumor types.

Mersana plans to enroll an initial dose-escalation cohort in patients with NaPi2b-expressing tumors in the Phase 1 study with the objective of selecting the recommended Phase 2 dose followed by three expansion cohorts. Two expansion cohorts are expected to each enroll 30 patients with ovarian cancer and non-squamous non-small cell lung cancer, while a third cohort is expected to consist of patients with rarer tumors that are known to express NaPi2b, such as papillary thyroid cancer, papillary renal cell carcinoma, endometrial cancer and salivary duct cancer.

“The initiation of this study represents a significant milestone for Mersana, as it marks the start of the company’s second clinical program within the past year,” said Donald A. Bergstrom, M.D., Ph.D., Chief Medical Officer of Mersana. “Our rapid progress from receiving IND clearance to initiating dosing of patients is indicative of the expertise of our internal team as well as the relationships we’ve built with our investigator partners and CRO. Based on our exciting preclinical data, we look forward to evaluating the potential of XMT-1536 as a treatment for patients with NaPi2b-expressing cancers.”

XMT-1536 is comprised of Mersana’s Dolaflexin platform conjugated to a proprietary NaPi2b antibody. Each antibody molecule carries 10-15 molecules of Mersana’s proprietary payload featuring the Dolalock controlled-bystander technology, resulting in a balance of meaningful efficacy and tolerability in preclinical models. XMT-1536 induced greater than 50% median tumor regression in 10/19 (53%) primary patient-derived ovarian cancer xenograft models unselected for NaPi2b protein expression, with 10/12 (83%) tumor responses in NaPi2b-expressing models. In patient-derived NSCLC xenograft models, XMT-1536 achieved durable tumor regressions in 6/9 (75%) tested models.

For more information, please visit: https://clinicaltrials.gov/ct2/show/NCT03319628?term=XMT-1536&rank=1

About Mersana Therapeutics

Mersana Therapeutics is a clinical-stage biopharmaceutical company using its differentiated and proprietary ADC platforms to develop highly targeted drugs with increased tolerability and expanded opportunities to deliver meaningful clinical benefit to patients. Mersana’s lead product candidate, XMT-1522, is in Phase 1

clinical trials in patients with advanced tumors expressing HER2, including breast cancer, non-small-cell-lung-cancer (NSCLC) and gastric cancer patients. The Company's second product candidate, XMT-1536, entered clinical trials in late 2017. In addition, multiple partners are using Mersana's platform to advance their ADC pipelines.

Forward-Looking Statements
This press release contains "forward-looking" statements within the meaning of federal securities laws. These forward-looking statements are not statements of historical facts and are based on management's beliefs and assumptions and on information currently available to management. Forward-looking statements include information concerning the design of its clinical trials.

Forward-looking statements generally can be identified by terms such as "anticipates," "believes," "could," "seeks," "estimates," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would" or similar expressions and the negatives of those terms. Forward-looking statements represent management's beliefs and assumptions only as of the date of this presentation. The Company's operations involve risks and uncertainties, many of which are outside its control, and any one of which, or combination of which, could materially affect its results of operations and whether the forward-looking statements ultimately prove to be correct. Factors that may materially affect the Company's results of operations include, among other things, that preclinical testing may not be predictive of the results or success of ongoing or later preclinical or clinical trials and that the development of the Company's product candidates will take longer and/or cost more than planned, as well as those listed in the Company's Quarterly Report on Form 10-Q filed on November 13, 2017 with the Securities and Exchange Commission ("SEC"). Except as required by law, the Company assumes no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future.

Copies of the Company's our Quarterly Report on Form 10-Q and our other SEC filings are available by visiting EDGAR on the SE

Contacts:

Media Contact
Paul Kidwell, 617-680-1088
paulkidwell@mersana.com

or

Investors Contact
Stern Investor Relations, Inc.
Christina Tartaglia, 212-362-1200
christina@sternir.com