Mersana Therapeutics Presents Pre-clinical Data at AACR-NCI-EORTC on Two Additional, Proprietary Antibody Drug Conjugate Platforms and a Pre-clinical Update for XMT-1522 in Non-small Cell Lung Cancer

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CAMBRIDGE, Mass., Nov. 12, 2018 (GLOBE NEWSWIRE) -- 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 Dolaflexin® and other proprietary platforms, today announced it will present data on two new, novel antibody-drug conjugate (ADC) platforms at the AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics taking place November 13-16, 2018, in Dublin, Ireland. Additionally, the company will present pre-clinical data on the efficacy of XMT-1522 in NSCLC patient-derived xenograft models.

"We are excited about the potential of these novel, complementary ADC platforms to expand the scope of our future drug development programs," said Timothy B. Lowinger, Ph.D., Chief Scientific Officer, Mersana Therapeutics. "The Dolasynthen platform offers us a fully homogeneous platform to control the drug-to-antibody ratio (DAR) precisely from 2-24 to match it optimally to a given target. In addition, Alkymer, our novel DNA damaging agent platform, provides us the ability to address a broader range of cancer indications."

Details of the presentations are as follows:

Title: Indole-Biaryl Pyrrolobenzodiazepines (I-BiPs): A potent and well-tolerated class of DNA mono-alkylating payload for antibody-drug conjugates (ADCs)
Date/Time: Tuesday, November 13 from 12:00 to 19:00 GMT
Presenter: Josh Thomas, Ph.D., Principal Scientist

The poster demonstrates the potent antitumor efficacy for a novel platform, Alkymer, in a variety of solid tumor models and favorable therapeutic index and improved physicochemical properties relative to competitor DNA alkylating ADC platforms. This platform will allow Mersana to expand its development capabilities further into different tumor types and broaden the patient population that may benefit from these ADCs.

Title: Discovery of the novel, homogeneous payload platform Dolasynthen for Antibody-Drug Conjugates
Date/Time: Thursday, November 15 from 10:00 – 17:30 GMT
Presenter: Mariya Kozytska, Ph.D., Scientist

This poster demonstrates that the novel, fully homogeneous auristatin F hydroxypropyl amide (AF-HPA) based payload platform, Dolasynthen, showed potent *in vivo* antitumor activity and excellent tolerability in non-human primate studies. The Dolasynthen platform is amenable to the generation of ADCs with enhanced homogeneity, including fully homogeneous ADCs. The poster details that the hydrophilic nature of the structurally defined framework coupled with the careful design of the payload and additional key components led to identification of this novel platform, which shows great promise for future clinical use.

Title: Target Expression/Efficacy Relationship of XMT-1522, a HER2-targeting Antibody Drug Conjugate (ADC), in an Unselected Series of Non-small Cell Lung Cancer (NSCLC) Primary Human Carcinoma Xenografts
Date/Time: Friday, November 16 from 10:00 to 14:00 GMT
Presenter: Rebecca Mosher, M.D., Executive Director, Translational Medicine

Mersana's final poster demonstrates that in an unselected series of human primary xenografts, XMT-1522 yielded responses that related to HER2 protein and RNA expression levels. A median best response of >50% reduction was seen in 8/16 NSCLC models in the 3 mg/kg treated group and 3/11 NSCLC models in the 1 mg/kg treated group. HER2 protein levels will be prospectively evaluated in the planned dose expansion groups as part of the Phase 1 clinical trial of XMT-1522, and RNA levels will be determined retrospectively.

"We continue to make significant strides in assembling the proprietary platforms necessary to build a leadership ADC pipeline," said Anna Protopapas, President and CEO, Mersana Therapeutics. "We are applying Dolaflexin, Dolasynthen and Alkymer platforms to our priority targets and antibodies with the objective of selecting the next generation of ADCs to bring into clinical development. We are well poised to make a difference in patient lives."

About XMT-1522

XMT-1522 is a Dolaflexin ADC targeting HER2-expressing tumors. XMT-1522 comprises a proprietary HER2 antibody which is conjugated with Mersana's Dolaflexin platform – a Fleximer polymer linked with a proprietary auristatin payload. XMT-1522 provides a drug load of approximately 12 molecules per antibody, specifically designed to improve potency while simultaneously increasing tolerability. XMT-1522 has the potential to extend HER2-targeted therapy beyond the current "HER2-positive" populations into patients with lower levels of HER2 expression. The Phase 1 protocol will evaluate XMT-1522 in patients with advanced HER2-positive breast and gastric cancer, as well as advanced breast cancer with low HER2 expression and non-small cell lung cancer. More information on the ongoing Phase 1 clinical study can be found at clinicaltrials.gov.

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 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, is in Phase 1 clinical trials in patients with tumors expressing NaPi2b, including ovarian cancer, NSCLC and other cancers. In addition, multiple partners are using Mersana's platform to advance their ADC pipelines.

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