Mersana Therapeutics Announces Pipeline Updates and 2020 Strategic Priorities and Milestones

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XMT-1536 On Track to Demonstrate Proof of Concept in Both Ovarian and Non-Small Cell Lung Cancer with Multiple Data Readouts Expected Throughout 2020

XMT-1536 Expansion Study Dose Increased; Dose Escalation Study Continues

Next Clinical Candidate, XMT-1592, a Dolasynthen ADC Targeting NaPi2b, to Initiate First-in-Human Study in First Half of 2020

B7-H4, a First-In-Class ADC Target, Named as Next Pipeline Candidate with Initiation of IND-Enabling Studies in 2020

Immunosynthen Platform Expected to Deliver First STING Agonist ADC Development Candidate in Second Half of 2020

CAMBRIDGE, Mass., Jan. 10, 2020 (GLOBE NEWSWIRE) -- Mersana Therapeutics, Inc. (NASDAQ:MRSN), a clinical-stage biopharmaceutical company focused on discovering and developing a pipeline of antibody-drug conjugates (ADCs) targeting cancers in areas of high unmet medical need, today provided a pipeline update and announced its strategic priorities and anticipated milestones for 2020. Anna Protopapas, President and CEO of Mersana Therapeutics, will review these business updates in a presentation at the upcoming 38th Annual J.P. Morgan Healthcare Conference on Thursday, January 16, 2020.

“XMT-1536, a first-in-class NaPi2b-targeting Dolaflexin ADC, is nearing proof of concept and we expect to report important data from both the dose escalation and expansion portions of the study throughout 2020,” said Anna Protopapas. “XMT-1536 has shown confirmed responses and durable stable disease in biomarker unselected and heavily pretreated patients. XMT-1536 continues to be both active and well-tolerated at higher doses, and we have increased the dose in both the expansion and dose escalation portions of the study.”

“We have also made significant progress in leveraging our differentiated ADC platforms to build an exciting pipeline of candidates. XMT-1592, a NaPi2b-targeted ADC based on our new Dolasynthen platform, aims to extend our leadership in NaPi2b-directed therapies while also clinically validating the differentiated profile that our Dolasynthen platform has shown preclinically,” continued Anna Protopapas. “In addition, we are advancing a first-in-class ADC candidate targeting B7-H4, an antigen with a unique expression profile in the tumor and its microenvironment. Finally, we have developed a STING agonist ADC platform, Immunosynthen, with encouraging preclinical efficacy and tolerability data across multiple targets and anticipate selection of a development candidate later this year. 2020 has the potential to be a transformational year for Mersana as we progress in our efforts to develop novel therapeutics for patients with high unmet need.”

Corporate Updates and 2020 Goals

Progress in Phase 1 Study of XMT-1536

- **Dose increased to 52 mg/m^2 in escalation portion of the XMT-1536 Phase 1 study.** XMT-1536 was well tolerated by patients at the 43 mg/m^2 once-every-four-week dosing regimen. No patients experienced dose limiting toxicities, and the dose has been well-tolerated with primarily Grade 1 and Grade 2 treatment-related adverse events. The Company has initiated evaluation of a 52 mg/m^2 once-every-four-week dose escalation cohort and expects to report dose escalation data in the first half of 2020.

- **Dose increased to 43 mg/m^2 in the expansion portion of the XMT-1536 Phase 1 study; enrollment of both ovarian cancer and non-small cell lung cancer (NSCLC) adenocarcinoma patients continues.** Patients in the expansion study, currently on the 36 mg/m^2 once-every-four-week dose regimen, will remain at that dose. Newly enrolled patients will receive a 43 mg/m^2 once-every-four-week regimen. The Company expects to present interim data from the expansion study in the first half of 2020 and to be able to report more mature data in the second half of 2020.

Selection of Next Clinical Candidate XMT-1592

- **XMT-1592, a NaPi2b-targeting Dolasynthen ADC, selected as next clinical candidate, further extending Mersana’s leadership position in NaPi2b and ADC innovation.** Mersana’s Dolasynthen platform retains the proprietary auristatin DolaLock payload with controlled bystander effect plus the added benefits of site-specific conjugation, precise drug-to-antibody ratio, and even greater hydrophilicity for further enhanced drug-like properties and tumor exposure. In preclinical studies, Dolasynthen has shown four times greater efficacy in a lung tumor model in comparison to Dolaflexin, a platform that has already shown success when targeted to NaPi2b. The Company plans to evaluate the clinical differentiation of Dolasynthen by leveraging its experience in NaPi2b to rapidly and efficiently progress XMT-1592 through dose escalation, which it expects to initiate in the first half of 2020.

Advances Across Discovery Pipeline

- **Initiating IND-enabling studies of a first-in-class B7-H4 ADC candidate.** B7-H4 is expressed on both tumor cells and tumor-associated macrophages (TAMs). A B7-H4 ADC delivering a DolaLock payload has been shown in preclinical studies to exert a direct cytotoxic effect via uptake by tumor cells, as well as deliver additional payload release in the tumor environment through binding and catabolism in B7-H4-expressing TAMs. It has been shown that the DolaLock payload can activate dendritic cells and induce immunogenic cell death, with the potential to provide a secondary, immune-based anti-tumor effect in addition to the primary cytotoxic effect. The Company expects to disclose its development candidate and supporting data in the second half of 2020.

- **Immunosynthen platform on track to deliver a STING agonist ADC development candidate in 2020.** The Company has developed a novel STING agonist ADC platform and has generated preclinical data across multiple targets and models showing complete regression of tumors *in vivo* with a single, well-tolerated dose, consistent with increased cytokine expression and immune cell infiltration within the tumor. The Company expects to finalize the platform design and target evaluation and select its first STING agonist ADC development candidate in the second half of 2020. The Company also expects to disclose additional preclinical data at scientific meetings throughout 2020.

Upcoming Events

- The Company will review these achievements and milestones during its upcoming presentation at the 38th Annual J.P. Morgan Healthcare Conference in San Francisco, CA on Thursday, January 16, 2020 at 9:00 am PT.

About Mersana Therapeutics

Mersana Therapeutics is a clinical-stage biopharmaceutical company using its differentiated and proprietary ADC platforms to rapidly develop novel ADCs with optimal efficacy, safety and tolerability to meaningfully improve the lives of people fighting cancer. Mersana's lead product candidate, XMT-1536, is in a Phase 1 proof-of-concept clinical trial in patients with tumors expressing NaPi2b, including ovarian cancer and NSCLC adenocarcinoma. Mersana's second product candidate targeting NaPi2b-expressing tumors, XMT-1592, is an ADC created using Mersana's customizable and homogenous Dolasynthen platform. The Company's early stage programs include a B7-H4 targeting ADC, as well as a STING agonist ADC developed using the Company's Immunosynthen platform. In addition, multiple partners are using Mersana's platforms 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 Company's business strategy and the design, progression and timing of its clinical trials. Forward-looking statements generally can be identified by terms such as "aims," "anticipates," "believes," "could," "expects," "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 press release. 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 and whether these forward-looking statements prove to be correct include, among other things, that preclinical testing may not be predictive of the results or success of ongoing or later preclinical or clinical trials, that the development and testing of the Company's product candidates and new platforms will take longer and/or cost more than planned and that the identification of new product candidates will take longer than planned, as well as those listed in the Company's Annual Report on Form 10-K filed on March 8, 2019, with the Securities and Exchange Commission ("SEC") and subsequent SEC filings. 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.

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