

Mersana Therapeutics to Present Preclinical Data on XMT-1660, XMT-2056 and the Immunosynthen Platform at AACR Annual Meeting

April 5, 2022

XMT-1660 demonstrates robust activity in preclinical models of breast cancer

XMT-2056 demonstrates robust activity as monotherapy, in combination with standard of care therapies and in both HER2-high and HER2-low expressing preclinical models

Both programs on track to initiate Phase 1 clinical trials in mid-2022

CAMBRIDGE, Mass., April 05, 2022 (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 announced that it will present three posters highlighting data for XMT-1660, XMT-2056, and the Immunosynthen ADC platform at the upcoming American Association for Cancer Research (AACR) Annual Meeting 2022 to be held in New Orleans, Louisiana from April 8-13, 2022.

"ADC innovation is at the core of Mersana's strategy, and we have made significant progress in building out an innovative pipeline of potential cancer medicines. Our preclinical data show the potential of XMT-1660 in a range of B7-H4 expressing tumors and the power of our Dolasynthen platform," said Anna Protopapas, President and Chief Executive Officer of Mersana Therapeutics. "The preclinical profile of XMT-2056 as monotherapy and in combination with standard of care therapies in both HER2-high and HER2-low expressing models reinforces the differentiation of the Immunosynthen platform. We look forward to advancing both molecules into the clinic in mid-2022."

XMT-1660 is a Dolasynthen ADC targeting B7-H4, a target selectively expressed on tumors in areas of high unmet medical need, including breast, endometrial, ovarian and other cancers. The data show that a single dose of XMT-1660 has anti-tumor activity in both triple-negative breast cancer (TNBC) and estrogen receptor (ER)-positive breast cancer xenograph models. Higher B7-H4 expression is associated with greater anti-tumor activity of XMT-1660 in preclinical studies. Mersana expects a Phase 1 clinical trial for XMT-1660 to start in mid-2022.

XMT-2056, Mersana's first Immunosynthen STING-agonist ADC, targets a novel epitope of HER2, and is designed to offer a differentiated and complementary therapeutic approach to the treatment of HER2-expressing tumors. The preclinical data presented show that XMT-2056 demonstrates robust anti-tumor activity as a monotherapy in both HER2-high and HER2-low expressing models. XMT-2056's complementary mechanism of action results in increased efficacy in combination with trastuzumab, pertuzumab, anti-PD-1, or trastuzumab deruxtecan in preclinical studies. Mersana expects to initiate a Phase 1 clinical trial of XMT-2056 in mid-2022.

Immunosynthen is Mersana's immunostimulatory ADC platform designed to take ADCs beyond traditional cytotoxic drugs to targeted stimulation of the innate immune system. Data show that anti-tumor activity of Immunosynthen STING-agonist ADCs involves the targeted activation of the STING pathway in an antigen binding-dependent manner in both tumor-resident immune cells and in tumor cells. In addition to delivery to the tumor cell via antigen binding and internalization, data from multiple models demonstrate Fcγ-R1 is the major receptor that mediates delivery to a specific population of myeloid cells resident in primary human tumors, eliciting potent anti-tumor responses in preclinical studies.

Details of the presentations are as follows:

Poster Title: Anti-tumor effect of XMT-1660, a B7-H4 targeting antibody drug conjugate, in an unselected panel of patient derived xenograft models of breast cancer

Poster Board Number: 8 Session Category: Experimental and Molecular Therapeutics Session Title: Antibody Drug Conjugates Date/Time: Monday, April 11, 2022 at 1:30pm – 5:00pm CDT Location: New Orleans Convention Center, Exhibit Halls D-H, Poster Section 21

Poster Title: XMT-2056, a HER2-targeted Immunosynthen STING-agonist antibody-drug conjugate, binds a novel epitope of HER2 and shows increased anti-tumor activity in combination with trastuzumab and pertuzumab Poster Board Number: 5

Session Category: Immunology Session Title: Immunomodulatory Agents and Interventions 2 Date/Time: Tuesday, April 12, 2022 at 1:30pm – 5:00pm CDT Location: New Orleans Convention Center, Exhibit Halls D-H, Poster Section 37

Poster Title: Tumor cell-targeted STING-agonist antibody-drug conjugates achieve potential anti-tumor activity by delivering STING agonist specifically to tumor cells and FcγRI-expressing subset of myeloid cells Poster Board Number: 15 Session Category: Immunology Session Title: Innate Immunity to Cancer Date/Time: Monday, April 11, 2022 at 1:30pm – 5:00pm CDT Location: New Orleans Convention Center, Exhibit Halls D-H, Poster Section 40

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, upifitamab rilsodotin (UpRi), is a Dolaflexin ADC targeting NaPi2b and is being studied in UPLIFT, a single-arm registrational trial in patients with platinum-resistant ovarian cancer, as well as in UPGRADE, a Phase 1/2 umbrella trial evaluating UpRi in combination with other ovarian cancer therapies. XMT-1592, Mersana's second ADC product candidate targeting NaPi2b-expressing tumors, was created using Mersana's customizable and homogeneous Dolasynthen platform and is in the dose exploration portion of a Phase 1 clinical trial. The Company's early-stage programs include XMT-1660, a Dolasynthen ADC targeting B7-H4, as well as XMT-2056, a STING-agonist ADC developed using the Company's Immunosynthen platform and targeting a novel epitope of HER2. In addition, multiple partners are using Mersana's platforms to advance their ADC pipelines. Mersana was recently named among the 2021 Top Places to Work in Massachusetts by *The Boston Globe*. Mersana routinely posts information that may be useful to investors on the "Investors and Media" section of its website at <u>www.mersana.com</u>.

Forward-Looking Statements

This press release contains "forward-looking" statements and information within the meaning of the Private Securities Litigation Reform Act of 1995. These statements may be identified by words such as "aims," "anticipates," "believes," "could," "estimates," "expects," "forecasts," "goal," "intends," "may," "plans," "possible," "potential," "seeks," "will" and variations of these words or similar expressions, although not all forward-looking statements contain these words. Forward-looking statements in this press release include, but are not limited to, statements concerning the therapeutic potential of Mersana's product candidates, the potential of Mersana's platforms and technology, and Mersana's anticipated initiation of Phase I clinical trials of XMT-1660 and XMT-2056. Mersana may not actually achieve the plans, intentions or expectations disclosed in these forward-looking statements, and you should not place undue reliance on these forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in these forward-looking statements as a result of various factors, including, among other things, uncertainties inherent in research and development, in the initiation of clinical trials and in the clinical development of Mersana's product candidates; the risk that Mersana's anticipated clinical trials may not be initiated on schedule, if at all; the risk that Mersana may not realize the intended benefits of its platforms and technology; whether the outcomes of preclinical studies will be predictive of clinical trial results; risks to clinical trial site initiation, patient enrollment and follow-up, as well as to Mersana's abilities to meet other anticipated deadlines and milestones, presented by the ongoing COVID-19 pandemic; and other important factors, any of which could cause Mersana's actual results to differ from those contained in the forward-looking statements, that are described in greater detail in the section entitled "Risk Factors" in Mersana's Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on February 28, 2022, as well as in other filings Mersana may make with the SEC in the future. Any forward-looking statements contained in this press release speak only as of the date hereof, and Mersana expressly disclaims any obligation to update any forward-looking statements contained herein, whether because of any new information, future events, changed circumstances or otherwise, except as otherwise required by law.

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