Mersana Therapeutics Announces 2022 Strategic Priorities and Milestones

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UPLIFT, a single-arm registrational trial of UpRi in platinum-resistant ovarian cancer, expected to complete enrollment in Q3 2022

UP-NEXT, a Phase 3 trial of UpRi monotherapy maintenance in platinum-sensitive ovarian cancer, expected to initiate in Q2 2022

Interim data from UPGRADE dose escalation umbrella trial of UpRi in combination with platinum planned for 2H 2022

Phase 1 dose escalation studies for two first-in-class candidates, XMT-1660, a Dolasynthen B7-H4 targeted ADC and XMT-2056, an Immunosynthen STING-agonist ADC targeting HER2, both expected to initiate in mid-2022

CAMBRIDGE, Mass., Jan. 07, 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 provided its strategic priorities and anticipated milestones for 2022. Anna Protopapas, President and CEO of Mersana Therapeutics, Inc. will provide a business update at the upcoming virtual 40th Annual J.P. Morgan Healthcare Conference on Wednesday, January 12, 2022.

"During 2021, we have made substantial progress in executing on the four strategic pillars that underlie our vision of building Mersana into an ADC leader: building UpRi into a foundational medicine in ovarian cancer, advancing a diverse pipeline of first-in-class ADCs addressing areas of high unmet medical need, driving ADC innovation and building Mersana into an organization with world-class talent," said Anna Protopapas. "With UPLIFT and UPGRADE ongoing and UP-NEXT expected to initiate in Q2 2022, we have established a highly differentiated development strategy with the goal of bringing UpRi to a broad population of ovarian cancer patients with limited options. With XMT-1660 and XMT-2056, two first-in-class candidates initiating Phase I dose escalation in mid-2022 and two additional candidates that will be disclosed during the course of year, we are expanding and diversifying our pipeline by leveraging our three innovative product engines: Dolasynthen, Dolaflexin, and Immunosynthen."

Ms. Protopapas continued: "Our selection as a Top Place to Work by the Boston Globe is validation of the talent we have attracted to Mersana and the mission-focused culture we have built."

Corporate Updates and 2022 Anticipated Goals and Milestones

Build Upifitamab Rilsodotin (UpRi), a first-in-class Dolaflexin ADC targeting NaPi2b, as a foundational medicine in ovarian cancer:

- **UPLIFT, a single-arm registrational trial in platinum-resistant ovarian cancer, is expected to complete enrollment in the third quarter of 2022.** UPLIFT is enrolling a broader population of patients with platinum-resistant ovarian cancer than other studies in this space through more flexible inclusion criteria with respect to lines of therapy, prior therapies, and underlying comorbidities. The primary endpoint is based on objective response rate in NaPi2b high patients, which represent approximately two-thirds of the patients as determined by a robust diagnostic assay, with a secondary endpoint in the overall population. The Company plans to enroll approximately 100 patients with high NaPi2b expression and up to 180 patients overall.

- **UP-NEXT, a Phase 3 monotherapy maintenance trial in platinum-sensitive recurrent ovarian cancer, is expected to initiate in the second quarter of 2022.** The design of UP-NEXT was informed by discussions with the FDA and CHMP and could serve as a confirmatory trial that expands UpRi into earlier lines of therapy. UP-NEXT will enroll platinum-sensitive patients who have achieved a response or stable disease after platinum therapy. Prior PARP therapy is required only for BRCA mutant patients. NaPi2b high patients, which represent approximately two-thirds of the ovarian cancer population, will be enrolled. In recognition of the unmet medical need and the lack of a standard of care for these patients, the trial will be randomized against placebo.

- **UPGRADE, a Phase 1/2 combination umbrella trial in platinum-sensitive ovarian cancer, continues to enroll with interim data expected in the second half of 2022.** UPGRADE is currently in a Phase 1 dose escalation trial evaluating the combination of carboplatin with UpRi for up to six cycles followed by UpRi continuation as a single-agent. The dose escalation portion of the trial is intended to determine the recommended Phase 2 dose in combination with carboplatin. The expansion portion of the trial is intended to provide proof of concept for a potential new standard of care for platinum-sensitive ovarian cancer earlier in the disease by demonstrating that the combination of platinum and UpRi followed by UpRi continuation as a single-agent could result in improved efficacy and tolerability with the ultimate goal of improved clinical benefit for patients. The trial will inform further development of UpRi in this broader and earlier line patient population.

Build out a pipeline of highly impactful cancer medicines:

- **XMT-1592, a first Dolasynthen ADC targeting NaPi2b, is currently in a Phase 1 trial, with dose exploration expected to be complete in the second half of 2022.** XMT-1592 was designed to provide Mersana with a second shot on goal in NSCLC adenocarcinoma based on the increased preclinical activity shown in this indication. The Company is continuing dose exploration to determine the recommended Phase 2 dose and plans to provide an update on next steps for this program in the second half of 2022.

- **XMT-1660, a first-in-class Dolasynthen ADC targeting B7-H4, is expected to initiate a Phase 1 dose escalation trial in mid-2022.** XMT-1660 targets B7-H4, a target selectively expressed on tumors in areas of high unmet medical need including breast, endometrial and ovarian cancers. XMT-1660 is a Dolasynthen ADC that utilizes the Company's unique DolaLock payload with controlled bystander effect. Clinical experience to date with ADCs carrying the DolaLock payload has demonstrated no association with severe neutropenia, peripheral neuropathy or ocular toxicity.

- **XMT-2056, a first-in-class HER2-targeted Immunosynthen STING-agonist ADC, is expected to initiate a Phase 1 dose escalation trial in mid-2022.** XMT-2056 is the Company's first ADC candidate developed using Immunosynthen, its novel STING-agonist immunostimulatory ADC platform. XMT-2056 is designed to offer a differentiated and complementary therapeutic approach to the treatment of HER2-expressing tumors. XMT-2056 targets a novel HER2 epitope with differentiated binding from trastuzumab and pertuzumab, providing an opportunity for development as a single-agent as well as in combination with well-established and investigational anti-HER2 agents. Across multiple preclinical models, XMT-2056 monotherapy demonstrated increased efficacy in comparison to benchmark agents such as a trastuzumab-TLR7/8 agonist ADC as well as a small molecule systemically-administered STING agonist. XMT-2056 also demonstrated efficacy in both high and low HER2 expression models. In addition, in preclinical models, XMT-2056 showed increased efficacy in combination with trastuzumab. XMT-2056 was generally well-tolerated in non-human primate studies with no clinical signs and no adverse findings in clinical pathology or histopathology after single and repeat IV doses.

Build innovation and scientific leadership in ADCs

- **The Company plans to disclose two new development candidates, XMT-2068 and XMT-2175, during the first half of 2022.** Both candidates were created utilizing the Company's Immunosynthen platform and are STING-agonist ADCs targeting tumor-associated antigens in the tumor microenvironment with broad expression across indications.

Upcoming Events

- The Company will review these corporate updates and milestones during its upcoming presentation at the upcoming virtual 40th Annual J.P. Morgan Healthcare Conference on Wednesday, January 12, 2022 at 3:00 pm ET.

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 of 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 escalation portion of a Phase 1 proof-of-concept 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 human epidermal growth factor receptor 2 (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. The Company routinely posts information that may be useful to investors on the "Investors and Media" section of our website at www.mersana.com.

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, the design, progression and timing of its clinical trials, including the Company's UPLIFT, UP-NEXT and UPGRADE clinical trials, the ability of its current and planned clinical trials to generate registration enabling and/or supportive data, the potential benefits of our product candidates, and expectations regarding future clinical trial results based on data achieved to date, and activities and prospects pursuant to collaboration agreements with third parties. Forward-looking statements generally can be identified by terms such as "aims," "anticipates," "believes," "contemplates," "continues," "could," "estimates," "expects," "goal," "intends," "may," "on track," "opportunity," "plans," "poised for," "possible," "potential," "predicts," "projects," "promises to be," "seeks," "should," "target," "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 research, development or commercialization activities conducted by the Company or its collaboration partners prove to be unsuccessful, that we may not meet clinical endpoints with statistical significance or there may be safety concerns or adverse events associated with

our product candidates, that preclinical testing or early clinical results may not be predictive of the results or success of ongoing or later preclinical or clinical trials, that we may not meet our goals for the timing of, or our ability to obtain and maintain, regulatory approvals for our product candidates, that the identification, development and testing of the Company's or its partners' product candidates and new platforms will take longer and/or cost more than planned, and that our clinical studies may not be initiated or completed on schedule, if at all, as well as those listed in the Company's Quarterly Report on Form 10-Q filed on November 9, 2021, with the Securities and Exchange Commission ("SEC"), and subsequent SEC filings. In addition, while we expect that the COVID-19 pandemic might adversely affect the Company's preclinical and clinical development efforts, business operations and financial results, the extent of the impact on the Company's operations and the value of and market for the Company's common stock will depend on future developments that are highly uncertain and cannot be predicted with confidence at this time, such as the ultimate duration of the pandemic, the spread of variants of COVID-19, travel restrictions, quarantines, physical distancing and business closure requirements in the U.S. and in other countries, and the effectiveness of actions taken globally to contain and treat the disease. 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 Quarterly Report on Form 10-Q and our other SEC filings are available by visiting EDGAR on the SEC website at http://www.sec.gov.

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