UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

	FORM 8-K	
	CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1	934
Date of R	eport (Date of earliest event reported): F	ebruary 28, 2022
	SANA THERAPEUT sact name of registrant as specified in i	
Delaware	001-38129	04-3562403
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)
840 Memorial Drive Cambridge, Massachusetts		02139
(Address of Principal Executive C	Offices)	(Zip Code)
Registran	t's telephone number, including area code	e: (617) 498-0020
(Form	Not Applicable er name or former address, if changed sir	nce last report)
Check the appropriate box below if the Form 8-K following provisions (see General Instruction A.2. be		isfy the filing obligation of the registrant under any of the
\square Written communications pursuant to Rule 425 ur	nder the Securities Act (17 CFR 230.425)	
\square Soliciting material pursuant to Rule 14a-12 unde	r the Exchange Act (17 CFR 240.14a-12)	
☐ Pre-commencement communications pursuant to	Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
☐ Pre-commencement communications pursuant to	Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
Securities registered pursuant to Section 12(b) of the	Act:	
<u>Title of each class</u> Common Stock, \$0.0001 par value	<u>Trading Symbol(s)</u> MRSN	Name of each exchange on which registered The Nasdaq Stock Market LLC
Indicate by check mark whether the registrant is an chapter) or Rule 12b-2 of the Securities Exchange Ac		n Rule 405 of the Securities Act of 1933 (§230.405 of this
Emerging growth company \square		
If an emerging growth company, indicate by check mor revised financial accounting standards provided pu		e the extended transition period for complying with any new Act. \square

Item 2.02 Results of Operations and Financial Condition.

On February 28, 2022, Mersana Therapeutics, Inc. (the "Company") issued a press release announcing financial results for the fiscal quarter and year ended December 31, 2021 and other business highlights. A copy of the press release is being furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information contained in Item 2.02 in this Current Report on Form 8-K (including Exhibit 99.1) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
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99.1 Press release issued by the Company on February 28, 2022

104 Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

MERSANA THERAPEUTICS, INC.

By: /s/ Brian DeSchuytner

Date: February 28, 2022

Brian DeSchuytner Chief Financial Officer

Mersana Therapeutics Announces Fourth Quarter and Full Year 2021 Financial Results and Provides Business Update

- UPLIFT on track to complete enrollment Q3 2022, UP-NEXT to initiate in Q2 2022, and UPGRADE on track for 2H 2022 interim data readout
 - XMT-1660 and XMT-2056 expected to enter clinic mid-2022
 - Research collaboration and license agreement with Janssen leverages Mersana's ADC expertise and Dolasynthen platform
- Strengthened financial position with \$40 million upfront payment from Janssen, \$45.6 million in proceeds from strategic use of ATM with participation from long-term investors, and up to \$100 million from line of credit

CAMBRIDGE, Mass., February 28, 2022 – 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 reported financial results and provided a business update for the fourth quarter and full year ended December 31, 2021.

"We are executing on a differentiated UpRi development plan with the potential for a BLA submission in 2023 based on UPLIFT data, and we are progressing further development into earlier lines of therapy with UP-NEXT and UPGRADE, all in support of our goal of building UpRi into a foundational therapy in ovarian cancer. Leveraging our three innovative platforms, the advancement of XMT-2056, XMT-1660 and XMT-1592 provides additional opportunities to have a meaningful impact on patient outcomes. Our recently announced Janssen partnership further validates our differentiated Dolasynthen platform and highlights the strategic importance placed by major oncology players on ADC innovation," said Anna Protopapas, President and Chief Executive Officer of Mersana Therapeutics. "With our enhanced capital position and meaningful clinical progress, we stand well positioned for the future, as we strive to transform Mersana into a commercial stage company with a deep pipeline of first in class molecules."

Recent Highlights and Anticipated Milestones

Upifitamab Rilsodotin (UpRi), first-in-class Dolaflexin ADC targeting NaPi2b:

• Analysis from expansion cohort of UpRi Phase 1 trial accepted for oral presentation at Society of Gynecologic Oncology (SGO) Annual Meeting on Women's Cancer on March 19, 2022. The Company plans to present further detail of its analysis of almost 100 patients with ovarian cancer from the June 10th, 2021 data cut (previously disclosed in September 2021) which supported the decision to select 36 mg/m² as the recommended Phase 2 dose for UPLIFT.

- UPLIFT, a single-arm registration trial in platinum-resistant ovarian cancer, remains on track to complete enrollment during 3Q 2022. UPLIFT is enrolling a broader population of patients with platinum-resistant ovarian cancer than other studies in this indication through more flexible inclusion criteria with respect to lines of therapy and underlying comorbidities. UPLIFT utilizes our novel diagnostic assay to identify patients with NaPi2b high expressing tumors, which we believe to represent two thirds of ovarian cancer patients. UPLIFT's primary endpoint will evaluate efficacy in the NaPi2b high population, and the secondary endpoint will evaluate efficacy 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 trial of UpRi monotherapy maintenance, informed by FDA and CHMP feedback, expected to initiate enrollment in 2Q 2022. UP-NEXT has the potential to serve as a confirmatory trial, and support global registrations, positioning UpRi as the potential next novel targeted agent, and the first ADC, to launch into the platinum sensitive space. UP-NEXT will evaluate UpRi as a maintenance agent following treatment with platinum doublets in recurrent platinum-sensitive ovarian cancer. Watch-and-wait remains the standard of care for patients who have previously received or are poorly served by existing maintenance agents, as well as patients who achieve only stable disease after receiving platinum doublet therapies. UP-NEXT is designed to provide data to address these unmet needs.
- **UPGRADE, the Company's Phase 1/2 combination umbrella trial, is currently in dose escalation and remains on track to disclose interim data during 2H 2022.** The dose escalation portion of this trial is intended to determine the recommended Phase 2 dose of UpRi 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 UpRi with platinum followed by UpRi monotherapy continuation could result in improved efficacy and tolerability with the ultimate goal of improving clinical benefit for patients. UPGRADE will inform further development of UpRi in this broader and earlier line patient population.

XMT-1592, first Dolasynthen ADC targeting NaPi2b:

· XMT-1592, a Dolasynthen ADC targeting NaPi2b, continues in dose exploration. The Company plans to provide an update on next steps for XMT-1592, which is currently in Phase 1 dose exploration, in the second half of 2022. XMT-1592 was designed to provide Mersana with a second shot on goal in non-small cell lung cancer adenocarcinoma based on the differentiated preclinical data in this indication.

XMT-1660, Dolasynthen ADC targeting B7-H4:

· Investigational New Drug (IND)-enabling studies of XMT-1660 progressing with Phase 1 trial expected to start in mid-2022. B7-H4 is expressed in high unmet need tumors such as breast, endometrial and ovarian cancers and is expressed on both tumor cells and immunosuppressive tumor-associated macrophages (TAMs). Targeting this antigen provides the potential for both a direct, cytotoxic antitumor effect as well as delivering additional payload directly to the tumor microenvironment. The Company conducted preclinical drug-to-antibody-ratio (DAR) ranging studies and compared XMT-1660 to other B7-H4 ADCs with different DARs and found that XMT-1660 DAR-6 consistently outperformed these other ADCs in in vivo models and demonstrated a favorable pharmacokinetic and tolerability profile in mice and non-human primates.

XMT-2056, the Company's first Immunosynthen STING-agonist ADC targeting HER2:

• IND-enabling studies of XMT-2056 progressing with Phase 1 trial expected to start in mid-2022. In vitro and in vivo studies demonstrate that Immunosynthen STING-agonist ADCs activate the STING pathway in both tumor-resident immune cells and tumor cells, offering the potential for an increased therapeutic index and an advantage over other innate immune activating pathways. The Company developed XMT-2056 based on its differentiated anti-HER2 antibody that binds to a novel epitope, providing the opportunity for both monotherapy and combinations with well-established anti-HER2 therapies. In both high and low HER2 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 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.

Strategic Partnerships:

· Collaboration with Janssen leverages Mersana's ADC expertise and innovative Dolasynthen platform and further enhances financial position. In February, the Company announced a research collaboration and license agreement with Janssen Biotech, Inc. to discover novel ADCs for up to three targets by leveraging Mersana's ADC expertise and the Dolasynthen platform with Janssen's antibodies. As part of the agreement, Mersana received \$40 million in an upfront payment with the potential for more than \$1 billion in total milestone payments and mid-single-digit to low double-digit percentage royalties on future net sales.

Strengthened Financial Position:

• Entered into a new line of credit for increased financial flexibility. In October 2021, the Company entered into a new credit facility for up to \$100 million with Oxford Finance LLC (Oxford) and Silicon Valley Bank (SVB), drawing \$25 million at signing. An additional \$35 million is available at the Company's option, with the remaining balance available primarily upon achievement of certain pipeline and UpRi development milestones. In connection with this new facility, the Company retired the prior debt financing agreement with Silicon Valley Bank.

- · Raised \$45.6 million from At-The-Market (ATM) facility in Q1 2022 with significant participation from existing long-term investors.
- The Company believes its current cash and cash equivalents plus available borrowing under its line of credit will be sufficient to fund its current operating plan commitments into the second half of 2023. As of December 31, 2021, the Company had cash and cash equivalents of \$177.9 million and subsequently received a \$40 million upfront payment under the Janssen collaboration agreement and \$45.6 million of net proceeds from sales of the Company's common stock under its ATM. In addition, the Company currently has the option to borrow \$35 million under the new line of credit with Oxford & SVB.

Upcoming Events

- Mersana plans to participate in a corporate panel discussion on ovarian cancer at the Cowen 42nd Annual Health Care Conference scheduled for March 9, 2022.
- Mersana plans to present at the SGO Annual Meeting on Women's Cancer (Society of Gynecologic Oncology) on March 19, 2022.

Fourth Quarter 2021 Financial Results

- · Net cash used in operating activities in the fourth quarter of 2021 was \$42.4 million.
- · Research and development expenses for the fourth quarter of 2021 were \$37.4 million, compared to \$22.9 million for the same period in 2020. The difference was primarily due to an increase in manufacturing and clinical costs on the UpRi program, an increase in headcount and an increase in research and manufacturing costs on preclinical programs. Non-cash stock-based compensation expense included in these research and development expenses was \$2.6 million.
- · General and administrative expenses for the fourth quarter of 2021 were \$10.7 million, compared to \$5.9 million during the same period in 2020 primarily due to an increase in headcount and consulting and professional fees. Non-cash stock-based compensation expense included in these general and administrative expenses was \$2.3 million.
- Net loss for the fourth quarter of 2021 was \$49.0 million, or \$0.68 per share, compared to net loss of \$28.8 million, or \$0.42 per share, for the same period in 2020. Weighted average common shares outstanding for the quarter ended December 31, 2021, and December 31, 2020, were 71,921,322 and 68,630,078, respectively.

Full Year 2021 Financial Results

- · Research and development expenses for the full year 2021 were \$132.0 million, compared to \$67.0 million for the full year 2020. The difference was primarily due to an increase in manufacturing and clinical development activities, an increase related to preclinical and discovery stage programs, and an increase in headcount. Non-cash stock-based compensation expense included in these research and development expenses was \$10.0 million.
- · General and administrative expenses for the full year 2021 were \$36.9 million, compared to \$21.9 million during the full year 2020. The difference was primarily due to an increase in headcount and consulting and professional fees. Non-cash stock-based compensation expense included in these general and administrative expenses was \$8.4 million.
- Net loss for the full year 2021 was \$170.1 million, or \$2.41 per share, compared to net loss of \$88.0 million, or \$1.43 per share, for the full year 2020. Weighted average common shares outstanding for the periods ended December 31, 2021, and December 31, 2020, were 70,580,949 and 61,485,205, respectively.
- · Cash and cash equivalents as of December 31, 2021, were \$177.9 million, compared to \$255.1 million in cash and cash equivalents as of December 31, 2020.

Conference Call Details

Mersana Therapeutics will host a conference call today at 8:00 a.m. ET to report financial results for the fourth quarter and full year 2021 and provide certain business updates. To access the call, please dial 877-303-9226 (domestic) or 409-981-0870 (international) and provide the Conference ID 7999454. A live webcast of the presentation will be available on the Investors & Media section of the Mersana website at www.mersana.com.

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 human epidermal growth factor receptor 2 (HER2). In addition, multiple partners are using Mersana's platforms to advance their ADC pipelines. Mersana Therapeutics 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 and information within the meaning of The Private Securities Litigation Reform Act of 1995. These forward-looking statements are not statements of historical facts and are based on management's beliefs and assumptions. Forward-looking statements in this press release include statements concerning the Company's business strategy and the design, progression and timing of its clinical trials or preclinical studies and the release of data from those studies, the completion of enrollment in the UPLIFT trial, the development and potential of our pipeline of innovative ADC candidates, expectations regarding future clinical trial results, including with respect to the timing of the commencement and future disclosures, and the sufficiency of the Company's cash on hand and funds available through its debt financing agreement with Oxford Finance and Silicon Valley Bank. Forward-looking statements generally can be identified by terms such as "aims," "anticipates," "believes," "contemplates," "continues," "could," "designed to," "estimates," "expects," "goal," "intends," "may," "on track," "opportunity," "plans," "poised for," "possible," "potential," "predicts," "projects," "promises to be," "seeks," "should," "strategy," "target," "will," "would" or similar expressions and the negatives of those terms. 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, that the results of the Company's ongoing or future clinical trials may be inconclusive with respect to the efficacy of the Company's product candidates, that the Company may not meet clinical endpoints with statistical significance or there may be safety concerns or adverse events associated with its product candidates, that preclinical testing or early clinical results may not be predictive of the results or success of ongoing or later preclinical studies or clinical trials, that the identification, development and testing of the Company's product candidates and new platforms will take longer and/or cost more than planned, availability of funding sufficient for the Company's foreseeable and unforeseeable operating expenses and capital expenditure requirements, and that the Company's clinical trials 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 that the Company may make in the future.

Mersana Therapeutics, Inc. Selected Condensed Consolidated Balance Sheet Data (in thousands) (unaudited)

	Dec	ember 31, 2021	December 31, 2020		
Cash and cash equivalents	\$	177,947	\$	255,094	
Working capital ⁽¹⁾		141,375		228,577	
Total assets		206,111		273,399	
Total stockholders' equity		121,741		228,087	

⁽¹⁾ The Company defines working capital as current assets less current liabilities. See the Company's condensed consolidated financial statements for further detail regarding its current assets and current liabilities.

Mersana Therapeutics, Inc. Condensed Consolidated Statement of Operations (in thousands, except share and per share data) (unaudited)

	Three months ended				Year ended			
	D	ecember 31, 2021	D	December 31, 2020	D	ecember 31, 2021	D	ecember 31, 2020
Collaboration revenue	\$	11	\$	10	\$	43	\$	828
Operating expenses:								
Research and development		37,368		22,858		132,013		67,036
General and administrative		10,674		5,914		36,888		21,902
Total operating expenses		48,042		28,722		168,901		88,938
Total other income (expense), net		(952)		(82)		(1,202)		65
Net loss	\$	(48,983)	\$	(28,844)	\$	(170,060)	\$	(88,045)
Net loss per share attributable to common stockholders — basic and								
diluted	\$	(0.68)	\$	(0.42)	\$	(2.41)	\$	(1.43)
Weighted-average number of common shares used in net loss per share attributable to common stockholders — basic and diluted		71,921,322		68,630,078		70,580,949		61,485,205

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Contact:

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