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 1934

Date of Report (Date of earliest event reported): May 1, 2014

Merrimack Pharmaceuticals, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware (State or Other Jurisdiction of Incorporation) 001-35409 (Commission File Number) 04-3210530 (IRS Employer Identification No.)

One Kendall Square, Suite B7201 Cambridge, MA (Address of Principal Executive Offices)

02139 (Zip Code)

Registrant's telephone number, including area code: (617) 441-1000

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under 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))

Item 2.02. Results of Operations and Financial Condition.

On May 1, 2014, Merrimack Pharmaceuticals, Inc. (the "Company") announced its financial results for the quarter ended March 31, 2014. The full text of the press release issued in connection with the announcement is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information in this Item 2.02 (including Exhibit 99.1) shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (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, as amended (the "Securities Act"), or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 7.01. Regulation FD Disclosure.

On May 1, 2014, the Company announced top line results from its randomized, open label Phase 3 clinical trial of MM-398 in patients with metastatic pancreatic cancer who received prior gemcitabine-based therapy. The full text of the press release issued in connection with the announcement is furnished as Exhibit 99.2 to this Current Report on Form 8-K.

The information in this Item 7.01 (including Exhibit 99.2) shall not be deemed "filed" for purposes of Section 18 of 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 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

The following exhibits shall be deemed to be furnished, and not filed:

- 99.1 Press release issued by the Company on May 1, 2014 regarding financial results
- 99.2 Press release issued by the Company on May 1, 2014 regarding clinical trial results

SIGNATURE

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.

Date: May 1, 2014

MERRIMACK PHARMACEUTICALS, INC.

By: /s/ Jeffrey A. Munsie

Jeffrey A. Munsie

Vice President and General Counsel

EXHIBIT INDEX

Exhibit No.	<u>Description</u>
99.1	Press release issued by the Company on May 1, 2014 regarding financial results
99.2	Press release issued by the Company on May 1, 2014 regarding clinical trial results

Merrimack Pharmaceuticals Reports First Quarter 2014 Financial Results

CAMBRIDGE, Mass., May. 1, 2014 (GLOBE NEWSWIRE) – Merrimack Pharmaceuticals, Inc. (Nasdaq: MACK), a biopharmaceutical company discovering, developing and preparing to commercialize innovative medicines paired with companion diagnostics for the treatment of cancer, today announced its first quarter 2014 financial results. Merrimack will host a live conference call and webcast today, Thursday, May 1 at 8:30 a.m., Eastern Time, to provide a summary of first quarter 2014 financial results as well as discuss the positive top line results of the combination arm of MM-398's Phase 3 NAPOLI-1 study in post-gemcitabine metastatic pancreatic cancer announced this morning.

Investors and the general public are invited to listen to the call by dialing (877) 564-1301 (domestic) or (224) 357-2394 (international) five minutes prior to the start of the call and providing the passcode 37032608. A listen-only webcast of the call can be accessed in the Investors section of Merrimack's website, http://investors.merrimackpharma.com, and a replay of the call will be archived there for six weeks following the call.

Key Recent Events

- Merrimack announced in a separate release this morning that in a Phase 3 study in patients with metastatic pancreatic cancer, the combination of MM-398 with 5-fluorouracil (5-FU) and leucovorin achieved an overall survival of 6.1 months, a 1.9 month improvement over the 4.2 month survival demonstrated by the control arm of 5-FU and leucovorin. The NAPOLI-1 study was completed in patients with metastatic pancreatic cancer who previously received gemcitabine-based therapy. The primary log-rank analysis of overall survival was statistically significant (p=0.012) with a corresponding hazard ratio of 0.67. A statistically significant advantage for progression free survival was also observed in the combination arm. The most common Grade 3 or higher adverse events in the combination arm were neutropenia, fatigue, diarrhea and vomiting. The arm evaluating MM-398 as a monotherapy did not meet the statistical endpoint. The hazard ratio for overall survival in the monotherapy arm was 0.99 with a corresponding p-value of 0.942. The study has been accepted for oral presentation at the European Society for Medical Oncology (ESMO) World Conference on Gastrointestinal Cancer being held in Barcelona, Spain on June 25-28, 2014.
- Merrimack also recently announced Phase 1 results from a clinical pilot study demonstrating that ferumoxytol*, an iron oxide nanoparticle, was well tolerated when used as a tumor contrast agent prior to MM-398 treatment. Data from the first cohort of patients in this study, which was completed in conjunction with the Virginia G. Piper Cancer Center and Imaging Endpoints, were presented at the American Association of Cancer Research Annual Meeting, April 5-9, 2014, in San Diego, California.

Upcoming Milestones

Merrimack anticipates the following upcoming milestones:

- Presentation of MM-121 Phase 2 data at the 2014 Annual Meeting of the American Society of Clinical Oncology in Chicago;
- Presentation of MM-398 Phase 3 NAPOLI-1 results at the ESMO World Congress on Gastrointestinal Cancer 2014 in Barcelona;
- Announcement of top line data for the Phase 2 triple negative breast cancer cohort of MM-121 in the neoadjuvant setting in the second quarter of 2014:
- Continued enrollment in the Phase 2 program for MM-111 in gastric, esophageal and gastroesophageal cancers;
- Initiation of a Phase 2 clinical study for MM-302 in 2014;
- Initiation of a Phase 2 clinical study for MM-151 in 2014; and
- Initiation of a Phase 2 clinical study for MM-141 in 2014.

Conferences

Merrimack expects to attend a number of investor conferences in the months ahead, including:

- Bank of America Merrill Lynch 2014 Health Care Conference, May 14 in Las Vegas; and
- UBS 2014 Global Healthcare Conference, May 19-21 in New York City.

First Quarter 2014 Financial Results

Net loss for the first quarter of 2014 was \$27.8 million, or basic and diluted net loss per share available to common stockholders of \$0.27, compared with net loss for the first quarter of 2013 of \$28.3 million, or basic and diluted net loss per share available to common stockholders of \$0.29. This decrease in net loss was primarily attributable to four factors:

- A \$9.0 million non-recurring decrease in net loss related to the MM-121 program \$5.8 million of this decrease relates to an increase in revenue in the first quarter of 2014 due to Merrimack receiving budget approval from Sanofi during the quarter for the funding of expenses recognized in 2013, and \$3.2 million of this decrease relates to a reduction in MM-121 expenses during the first quarter of 2014 due to a credit received from an agreement with a contract research organization;
- \$3.8 million of increased research and development expense not associated with MM-121, which was primarily due to increased spending on Merrimack's other clinical stage product candidates;
- \$3.3 million of increased interest expense from Merrimack's 4.50% convertible senior notes, which were issued in July 2013, of which \$1.9 million is imputed non-cash expense primarily related to the conversion feature of the convertible senior notes; and
- \$1.3 million of increased general and administrative expense primarily associated with increased headcount costs to support clinical development, increased rent expense and increased costs to support preliminary commercialization efforts on MM-398.

Financial Outlook

Merrimack expects its existing unrestricted cash and cash equivalents and available-for-sale securities as of March 31, 2014 of \$124.2 million, anticipated interest income and reimbursement of expenses under its license and collaboration agreement with Sanofi related to MM-121 to be sufficient to fund operations and pre-commercial efforts into 2015.

About Merrimack

Merrimack is a biopharmaceutical company discovering, developing and preparing to commercialize innovative medicines paired with companion diagnostics for the treatment of cancer. Merrimack seeks to gain a deeper understanding of underlying cancer biology through its systems biology-based approach and develop new insights, therapeutics and diagnostics to improve outcomes for cancer patients. Merrimack currently has six oncology therapeutics in clinical development and three additional candidates in late stage preclinical development. For more information, please visit Merrimack's website at www.merrimackpharma.com.

Cautionary Note on Forward-Looking Statements

To the extent that statements contained in this press release are not descriptions of historical facts, they are forward-looking statements reflecting the current beliefs and expectations of management made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements include any statements about Merrimack's strategy, future operations, future financial position and future expectations and plans and prospects for Merrimack, and any other statements containing the words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions. In this press release, Merrimack's forward-looking statements include statements about the potential effectiveness and safety profile of MM-398 either alone or in combination, the potential to develop ferumoxytol as a predictive diagnostic, the potential to identify patients most likely to benefit from MM-398, the timing of availability of clinical trial data, Merrimack's ability to translate clinical data into future clinical success, anticipated milestones, including the initiation of new trials, Merrimack's presentations at upcoming investor and scientific conferences and expectations regarding the sufficiency of Merrimack's financial resources to fund operations. Such forward-looking statements involve substantial risks and uncertainties that could cause Merrimack's clinical development programs, future results, performance or achievements to differ significantly from those expressed or implied by the forward-looking statements. Such risks and uncertainties include, among others, the uncertainties inherent in the initiation of future clinical trials, availability of data from ongoing clinical trials, expectations for regulatory approvals, development progress of Merrimack's companion diagnostics, availability of funding sufficient for Merrimack's foreseeable and unforeseeable operating expenses and capital expenditure requirements, and other matters that could affect the availability or commercial potential of Merrimack's drug candidates or companion diagnostics. Merrimack undertakes no obligation to update or revise any forward-looking statements. Forwardlooking statements should not be relied upon as representing Merrimack's views as of any date subsequent to the date hereof. For a further description of the risks and uncertainties that could cause actual results to differ from those

expressed in these forward-looking statements, as well as risks relating to Merrimack's business in general, see the "Risk Factors" section of Merrimack's Annual Report on Form 10-K filed with the Securities and Exchange Commission (SEC) on March 4, 2014 and other reports Merrimack files with the SEC.

* Ferumoxytol, commercially available as Feraheme® (AMAG Pharmaceuticals), is an iron-oxide, super-paramagnetic nanoparticle, known to be taken up by macrophages and for exhibiting magnetic resonance imaging properties. The U.S. Food and Drug Administration has approved ferumoxytol for intravenous use as an iron replacement product for the treatment of iron deficiency anemia in adult patients with chronic kidney disease (CKD). The use of ferumoxytol in the pilot study mentioned above is for clinical investigational studies only.

Merrimack Pharmaceuticals, Inc.

Unaudited Condensed Consolidated Statements of Comprehensive Loss

(in thousands, except per share amounts)

	Three Months Ended March 31	
	2014	2013
Collaboration revenues	\$ 13,034	\$ 14,655
Operating expenses:		
Research and development	30,324	36,989
General and administrative	6,224	4,932
Total operating expenses	36,548	41,921
Loss from operations	(23,514)	(27,266)
Other income and expenses, net	(4,240)	(1,057)
Net loss	(27,754)	(28,323)
Less net loss attributable to non-controlling interest	(169)	(170)
Net loss attributable to Merrimack	\$ (27,585)	\$ (28,153)
Other comprehensive income	16	18
Comprehensive loss	(27,569)	(28,135)
Net loss per share available to stockholders - basic and diluted	(\$ 0.27)	(\$ 0.29)
Weighted-average common shares used in computing net loss per share available to common stockholders - basic and diluted	102,888	95,879

Merrimack Pharmaceuticals, Inc.

Unaudited Balance Sheet Data

(in thousands)

	As of March 31, <u>2014</u>	As of December 31, 2013
Cash, cash equivalents and available-for-sale securities	\$124,176	\$ 155,202
Working capital	81,893	108,910
Total assets	164,982	192,417
Total liabilities	230,778	235,545
Total stockholders' deficit	(65,964)	(43,465)

Merrimack Pharmaceuticals, Inc.

Unaudited Cash Flow Data

(in thousands)

		Three Months Ended March 31,	
	2014	2013	
Net cash used in operating activities	(\$31,387)	(\$21,196)	
Net cash provided by investing activities	31,064	11,506	
Net cash provided by financing activities	2,134	411	
Net increase (decrease) in cash and cash equivalents	1,811	(9,279)	

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Merrimack Pharmaceuticals Announces MM-398 Achieves Primary Endpoint of Overall Survival in Phase 3 Trial in Post-Gemcitabine Metastatic Pancreatic Cancer

MM-398 in combination with 5-fluorouracil and leucovorin demonstrates statistically significant advantage compared to control arm

Plan to submit New Drug Application in 2014

Conference Call Scheduled for 8:30 a.m. ET Today

CAMBRIDGE, Mass., May 1, 2014 (Globe Newswire) — Merrimack Pharmaceuticals, Inc. (Nasdaq: MACK) today announced that the combination of MM-398 with 5-fluorouracil (5-FU) and leucovorin achieved an overall survival of 6.1 months, a 1.9 month improvement over the 4.2 month survival demonstrated by the control arm of 5-FU and leucovorin alone. The NAPOLI-1 Phase 3 study was conducted in patients with metastatic pancreatic cancer who previously received gemcitabine-based therapy. The primary log-rank analysis of overall survival was statistically significant (p=0.012) with a corresponding hazard ratio of 0.67. A statistically significant advantage for progression free survival was also observed in the combination arm.

The most common Grade 3 or higher adverse events in the combination arm were neutropenia (14.5%), fatigue (13.7%), diarrhea (12.8%) and vomiting (11.1%). Sepsis (3.4%) was the only serious life threatening event that occurred with a more than 2% difference between the combination arm and the control arm

"We are excited by the results of the NAPOLI-1 study because of the critical need to help patients with this devastating illness and are moving forward as quickly as possible to get MM-398 to patients," said Robert Mulroy, President and CEO of Merrimack. "Given that there have only been a handful of successful Phase 3 trials in pancreatic cancer in the past 25 years, it is gratifying to have the first positive Phase 3 trial in the post-gemcitabine setting. The results reinforce our confidence in our entire nanoliposomal pipeline. We are grateful for the dedication of the investigators, the research community and, most importantly, the patients and their families who bravely participated in this study."

The Phase 3 study also examined MM-398 in a monotherapy regimen. MM-398 had a 4.9 month median overall survival as a monotherapy, but did not achieve a statistically significant survival advantage compared to the 4.2 months in the control arm. The hazard ratio for overall survival was 0.99 with a corresponding p-value of 0.942. In general, patients experienced a higher level of adverse events with the MM-398 monotherapy dose and treatment schedule compared to patients who received the combination of MM-398 with 5-FU and leucovorin.

"This demonstration of a survival benefit from the MM-398 plus 5-FU and leucovorin combination is particularly important given that we have very few treatment options for patients in this tough clinical setting," said Daniel D. Von Hoff, M.D., F.A.C.P., global principal investigator of the NAPOLI-1 study, Chief Scientific Officer for Scottsdale Healthcare's Virginia G. Piper Cancer Center and Distinguished Professor at Translational Genomics Research Institute (TGen).

"The Pancreatic Cancer Action Network's goal is to double pancreatic cancer survival by 2020. The positive results of this trial demonstrate progress toward that goal in a disease for which additional

treatment options are urgently needed to improve patient outcomes," stated Julie Fleshman, President and CEO of the Pancreatic Cancer Action Network. "These results also underscore the important role clinical trials play when patients are exploring their treatment options. We applied Merrimack's dedication to improving the treatment landscape for this patient population, and helping us charge forward in the fight against pancreatic cancer."

This study has been accepted for oral presentation at the European Society for Medical Oncology World Conference on Gastrointestinal Cancer being held in Barcelona, Spain on June 25-28, 2014. Merrimack expects to submit a New Drug Application to the U.S. Food and Drug Administration for the MM-398 combination regimen in 2014.

NAPOLI-1 Trial Design

NAPOLI-1 (NAnoliPOsomaL Irinotecan) is a randomized, open label Phase 3 study in patients with metastatic pancreatic cancer who received prior gemcitabine-based therapy. The study evaluated two MM-398 regimens, 80 mg/m² combined with 5-FU and leucovorin every two weeks, and 120 mg/m² as a monotherapy every three weeks. Each arm was compared to a control arm of 5-FU and leucovorin. A total of 417 patients were randomized across the three arms. Each MM-398 regimen was compared against the control arm on the primary endpoint of overall survival. Patients were enrolled at over 100 sites in North America, South America, Europe, Asia and Australia.

Merrimack to Host Conference Call

Merrimack will conduct a live conference call and webcast today, Thursday, May 1 at 8:30 a.m., Eastern Time, to discuss these top line results and provide a summary of first quarter 2014 financial results. Investors and the general public are invited to listen to the call by dialing (877) 564-1301 (domestic) or (224) 357-2394 (international) five minutes prior to the start of the call and providing the passcode 37032608. A listen-only webcast of the call can be accessed in the Investors section of Merrimack's website, http://investors.merrimackpharma.com, and a replay of the call will be archived there for six weeks following the call.

About MM-398

MM-398 (irinotecan liposome injection), also known as "nal-IRI," is a nanoliposomal encapsulation of the chemotherapeutic irinotecan. MM-398 has demonstrated extended circulation in comparison to free irinotecan in the clinical setting. The activated form of irinotecan is SN-38, which functions by inhibiting topoisomerase I (an essential enzyme involved in DNA transcription and replication) and promoting cell death.

MM-398 is an investigational agent which is also currently being evaluated in an ongoing Phase 2 study in patients with metastatic colorectal cancer and Phase 1 studies in Ewing's sarcoma and glioma. An additional Phase 1 clinical trial is assessing a potential companion diagnostic for MM-398 in patients with multiple cancer types to determine which patients are most likely to benefit from treatment with the drug.

Under a 2011 agreement with PharmaEngine, Inc. (Taipei, Taiwan), Merrimack consolidated the worldwide development and commercialization rights to MM-398, with PharmaEngine, Inc. retaining commercialization rights in Taiwan.

MM-398 is not approved for any indication by the U.S. Food and Drug Administration (FDA) or any other regulatory agency. Both the FDA and the European Medicines Agency have granted MM-398 orphan drug designation in metastatic pancreatic cancer.

About Pancreatic Cancer

In the United States alone, approximately 46,000 people are diagnosed with pancreatic cancer and about 40,000 patients die annually, making it the fourth most common cause of cancer death. The one year and five year mortality rates are 73 percent and 94 percent, respectively¹. Because the signs and symptoms of pancreatic cancer may not appear until the disease has spread to other sites in the body, a majority of patients are not candidates for surgery and receive chemotherapy as the mainstay of their therapy. There is no consensus on the standard of care for metastatic pancreatic cancer patients previously treated with a gemcitabine-based therapy.

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¹ American Cancer Society, Cancer Facts and Figures 2014. Atlanta: American Cancer Society; 2014.

on Form 10-K filed with the Securities and Exchange Commission (SEC) on March 4, 2014 and other reports Merrimack files with the SEC.

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