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 8, 2018

KINDRED BIOSCIENCES, INC.
(Exact name of registrant as specified in its charter)

Delaware	001-36225	46-1160142
(State or other jurisdiction of incorporation or organization)	(Commission File Number)	(I.R.S. Employer Identification No.)

1555 Bayshore Highway, Suite 200, Burlingame, California 94010
(Address of principal executive offices) (Zip Code)

(650) 701-7901
(Registrant's telephone number, include area code)

N/A
(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:

☐ 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))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933(§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☒

Item 2.02 Results of Operations and Financial Condition.

On May 8, 2018, Kindred Biosciences, Inc. (the "Company") issued a press release announcing its financial results for the three months ended March 31, 2018 and recent business developments. A copy of the press release is attached to this Current Report on Form 8-K as Exhibit 99.1 and is incorporated herein by reference.

The information furnished under this Item 2.02, including the accompanying Exhibit 99.1, shall not be deemed to be "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act"), or otherwise subject to the liability of such section, nor shall such information be deemed to be incorporated by reference in any subsequent filing by the Company under the Securities Act of 1933 or the Exchange Act, regardless of the general incorporation language of such filing, except as specifically stated in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Press Release of Kindred Biosciences, Inc. issued on May 8, 2018.

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.

KINDRED BIOSCIENCES, INC.

Date: May 8, 2018

By: /s/ Wendy Wee
Wendy Wee
Chief Financial Officer

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press Release of Kindred Biosciences, Inc. issued on May 8, 2018.

Kindred Biosciences Announces First Quarter 2018 Financial Results

San Francisco, CA (May 8, 2018) Kindred Biosciences, Inc. (NASDAQ: KIN), a commercial-stage biopharmaceutical company focused on saving and improving the lives of pets, today announced financial results for the first quarter ended March 31, 2018 and provided updates on its programs.

"We are excited about the recent approval of our first product, Mirataz™, for the management of weight loss in cats. This first-in-class medicine, which is the only FDA-approved treatment for this indication, and the first transdermal product ever approved for cats by FDA, will help millions of cats with a serious and potentially fatal unmet medical need," stated Richard Chin, CEO of KindredBio. "In less than five years and at a cost of under $5 million, we have brought to market our first product, thereby validating our strategy of quickly and cost-efficiently developing therapeutics that improve the lives of pets. We are also very pleased with the progress across our rich pipeline, including epoCat™ and our monoclonal antibodies for atopic dermatitis, which represent large market opportunities."

Development and Corporate Milestones

- On May 4, KindredBio received approval of Mirataz™ (mirtazapine transdermal ointment).

  Mirataz is the first and only transdermal medication specifically developed, and Food and Drug Administration (FDA)-approved, for the management of weight loss in cats. Weight loss in cats is a serious and potentially fatal condition. The Company's research estimates that U.S. veterinarians see as many as 9 million cats each year with unintended weight loss, making this condition the leading cause of visits to the veterinarian for cats. Mirataz, which is formulated with KindredBio's proprietary Accusorb™ technology, is applied topically to the cat's inner ear (pinna) once a day, providing a more attractive application route compared to oral administration. The product is classified as a weight gain drug and can be used in cats with various underlying diseases associated with unintended weight loss.

  The Company will commence taking Mirataz orders within the next two weeks via distributors and KindredBio's team of sales specialists. The product will then ship within the next two to three months, once packaging has been updated based with the final FDA-approved label.

- The FDA has approved the safety and effectiveness technical sections for Zimeta™ (dipyrone injection) for the control of pyrexia (fever) in horses. The FDA has indicated it does not have any additional questions or requests from KindredBio regarding the CMC technical section. The approval is pending a pre-approval inspection, or PAI, at the contract manufacturer of Zimeta IV scheduled by the FDA in July 2018, and an acceptable resolution by the contract manufacturer of the active pharmaceutical ingredient (API) dipyrone of findings identified during an inspection last month. The Company believes that the findings at the API manufacturer are minor and addressable. Regulatory approval is subject to the typical risks inherent in such a process. Preparations for the commercial launch remain on track.
  Zimeta IV is expected to be the first FDA-approved product for the control of fever in horses, a significant unmet medical condition that affects millions of horses each year.

- The pivotal field effectiveness study for Zimeta™ (dipyrone oral gel) has been completed with positive results. The target animal safety study is also complete, and the Zimeta Oral was found to be well-tolerated. KindredBio is in discussions with the FDA regarding the data required for submission and is in the process of transferring the product to the commercial manufacturer.

  Zimeta Oral, which is a proprietary oral gel, is expected to expand use of the drug and build upon the success of Zimeta IV.

- KindredBio has initiated or is in the process of initiating pilot field effectiveness studies for several molecules for atopic dermatitis, including fully-caninized anti-IL31 antibody, fully-caninized anti-IL17 antibody, and canine anti-IL4/IL13 SINK molecule.
  Atopic dermatitis is an immune-mediated inflammatory skin condition in dogs. It is one of the most common skin diseases in dogs and represents a significant unmet medical need, with the two lead products

in the market expected to reach combined sales of over $500 million this year. KindredBio is pursuing a multi-pronged approach toward atopic dermatitis, with a portfolio of promising biologics.

- The pilot field effectiveness study of the enhanced version of epoCat™ (long-acting feline recombinant erythropoietin) for the control of non-regenerative anemia in cats has been initiated and enrollment is ongoing.
  Anemia is a common condition in older cats which is often associated with chronic kidney disease, resulting in decreased levels of endogenous erythropoietin. Chronic kidney disease can affect approximately half of older cats. epoCat is a recombinant protein that has been specially engineered by KindredBio with a prolonged half-life compared to endogenous feline erythropoietin. The PK data suggest that the molecule may have a sufficiently long half-life to allow for once-monthly dosing.

- The pilot field safety study of KIND-014 for the treatment of equine gastric ulcers has been completed and KIND-014 was well-tolerated. KindredBio has completed dose range finding and palatability studies and, based on the study results, the Company has advanced two formulations into pilot field studies. The pilot studies have been initiated and enrollment for one of the formulation candidates has been completed. By the end of the second quarter, the Company expects to have completed the review of data to determine which formulation will move into a pivotal field study, assuming the data support further development.
- The pilot field efficacy study of KIND-011, an anti-TNF monoclonal antibody targeting sick or septic foals, has been completed, with positive results.
  Sepsis in foals can cause up to 50% mortality and is an important unmet medical need. There is currently no FDA-approved therapy. KindredBio has optimized this fully-equinized anti-TNF monoclonal antibody and intends to continue field studies during the 2019 foaling season, following discussion with FDA regarding the development plan.

- A pilot field study assessing oral tolerability and palatability of KIND-015 for the management of clinical signs associated with equine metabolic syndrome has been completed. The Company has optimized the formulation for KIND-015 and has initiated a pilot field effectiveness study.
- The Company has started construction on the biologics manufacturing lines in the Elwood, Kansas facility it acquired in August 2017. The facility includes approximately 180,000 square feet with clean rooms, utility, equipment, and related quality documentation suitable for small molecule and biologics manufacturing. Construction to support KindredBio's initial production lines is expected to be completed by mid-2019.

First Quarter 2018 Financial Results

For the quarter ended March 31, 2018, KindredBio reported a net loss of $10.0 million or $0.36 per share, as compared to a net loss of $6.5 million or $0.30 per share, for the same period in 2017.

Total research and development expenses for the quarter ended March 31, 2018 were $5.3 million, compared to $3.8 million for the same period in 2017. The $1.5 million year-over-year increase in research and development expenses was primarily due to higher headcount and related expenses as the company focuses on advancing its biologics programs, as well as increased biologics batch production and testing costs, including lab supplies.

Total general and administrative expenses for the 2018 and 2017 first quarters were $4.9 million and $2.8 million, respectively. Expenditures in the first quarter of 2018 increased across the board. The $2.1 million increase in the first quarter of 2018 over the same period in 2017 included a mix of higher payroll and related expenses, marketing, travel and conference expenses as a result of pre-launch activities and the build-out of a small commercial team. In addition, higher corporate infrastructure costs and stock-based compensation expense also contributed to the increase in expenses.

As of March 31, 2018, KindredBio had $70.8 million in cash, cash equivalents and investments, compared with $82.5 million as of December 31, 2017. Net cash used in operating activities for the first quarter of 2018 was approximately $11.2 million. The Company also invested approximately $0.4 million in capital expenditures for the build-out of its Elwood, Kansas manufacturing facility.

For the 2018 calendar year, the Company reiterates its previous guidance for operating expenses to be in the range of $44 million to $48 million, excluding the impact of stock-based compensation expense and the impact of acquisitions, if any. The Company is preparing for the commercial launches of Mirataz and Zimeta including the scale up of a commercial team and will continue to focus on the development of its core pipeline candidates and programs. Additionally, KindredBio plans to invest $14.0 to $16.0 million in capital expenditures on the construction and build-out of its Elwood, Kansas facility for its biologics programs. Revenues for Mirataz and Zimeta are expected to have a substantial impact on cash utilization and expenses.

Webcast and Conference Call

KindredBio will host a conference call and webcast today at 4:30 p.m. Eastern Time / 1:30 p.m. Pacific Time. Interested parties may access the call by dialing toll-free (855) 433-0927 from the US, or (484) 756-4262 internationally, and using conference ID 8967967. The call will be webcast live at https://edge.media-server.com/m6/p/nhw6xeop. A replay will also be available at that link for 30 days.

About Kindred Biosciences

Kindred Biosciences is a commercial-stage biopharmaceutical company focused on saving and improving the lives of pets. Its mission is to bring to pets the same kinds of safe and effective medicines that human family members enjoy. The Company's strategy is to identify compounds and targets that have already demonstrated safety and efficacy in humans and to develop therapeutics based on these validated compounds and targets for dogs, cats and horses. The Company has a deep pipeline of novel drugs and biologics in development across many therapeutic classes. KindredBio's first approved drug is Mirataz™ (mirtazapine transdermal ointment) for the management of weight loss in cats.

For more information or to download the corporate presentation, visit www.KindredBio.com/LearnMore. Stay connected with KindredBio on Facebook at www.Facebook.com/KindredBio.

Important Safety Information

Mirataz™ (mirtazapine transdermal ointment) is for topical use in cats only under veterinary supervision. Do not use in cats with a known hypersensitivity to mirtazapine or any of the excipients or in cats treated with monoamine oxidase inhibitors (MAOIs). Not for human use. Keep out of reach of children. Wear gloves to apply and wash hands after. Avoid contact with treated cat for 2 hours following application. The most common adverse reactions include application site reactions, behavioral abnormalities (vocalization and hyperactivity) and vomiting. Please see the full Prescribing Information.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. All statements contained in this press release that do not relate to matters of historical fact should be considered forward-looking statements, including, but not limited to, statements regarding our expectations about the trials, regulatory approval, manufacturing, distribution and commercialization of our current and future product candidates, and statements regarding our anticipated revenues, expenses, margins, profits and use of cash.

These forward-looking statements are based on our current expectations. These statements are not promises or guarantees, but involve known and unknown risks, uncertainties and other important factors that may cause our actual results to be materially different from any future results expressed or implied by the forward-looking statements. These risks include, but are not limited to, the following: our limited operating history and expectations of losses for the foreseeable future; the absence of significant revenue from our product candidates for the foreseeable future; our potential inability to obtain any necessary additional financing; our substantial dependence on the success of our lead product candidates, which may not be successfully commercialized even if they are approved for marketing; the effect of competition; our potential inability to obtain regulatory approval for our existing or future product candidates; our dependence on third parties to conduct some of our development activities; our dependence upon third-party manufacturers for supplies of our product candidates; uncertainties regarding the outcomes of trials regarding our product candidates; our potential failure to attract and retain senior management and key scientific personnel; uncertainty about our ability to develop a satisfactory sales organization;

our significant costs of operating as a public company; our potential inability to obtain patent protection and other intellectual property protection for our product candidates; potential claims by third parties alleging our infringement of their patents and other intellectual property rights; our potential failure to comply with regulatory requirements, which are subject to change on an ongoing basis; the potential volatility of our stock price; and the significant control over our business by our principal stockholders and management.

For a further description of these risks and other risks that we face, please see the risk factors described in our filings with the U.S. Securities and Exchange Commission (the SEC), including the risk factors discussed under the caption "Risk Factors" in our Annual Report on Form 10-K and any subsequent updates that may be contained in our Quarterly Reports on Form 10-Q filed with the SEC. As a result of the risks described above and in our filings with the SEC, actual results may differ materially from those indicated by the forward-looking statements made in this press release. Forward-looking statements contained in this press release speak only as of the date of this press release and we undertake no obligation to update or revise these statements, except as may be required by law.

Contact

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Kindred Biosciences, Inc.
Statements of Operations
(In thousands, except per share amounts)
(Unaudited)

	Three Months Ended March 31,	
	2018	2017
Operating costs and expenses:		
Research and development	5,346	3,780
General and administrative	4,902	2,843
Total operating costs and expenses	10,248	6,623
Loss from operations	(10,248)	(6,623)
Interest and other income, net	277	131
Net loss	$ (9,971)	$ (6,492)
Basic and diluted net loss per share	$ (0.36)	$ (0.30)
Weighted average shares used to calculate basic and diluted net loss per share	27,986	21,516

Selected Balance Sheet Data
(In thousands)

	March 31, 2018 (unaudited)	December 31, 2017
Cash, cash equivalents and investments	$ 70,824	$ 82,519
Total assets	80,167	90,822
Stockholders' equity	76,157	84,680