## Kindred Biosciences, Inc.

**Exact name of registrant as specified in its charter**

**Delaware**
(State or other jurisdiction of incorporation or organization)

**001-36225**
(Commission File Number)

**46-1160142**
(L.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, including area code)

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

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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))

Securities registered pursuant to Section 12(b) of the Act:

<table>
<thead>
<tr>
<th>Title of each class</th>
<th>Trading Symbol</th>
<th>Name of each exchange on which registered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock, $0.0001 par value</td>
<td>KIN</td>
<td>The NASDAQ Stock Market LLC</td>
</tr>
<tr>
<td>Preferred Stock Purchase Rights</td>
<td>KIN</td>
<td>The NASDAQ Stock Market LLC</td>
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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 8.01 Other Events.

On September 16, 2020, Kindred Biosciences, Inc. (the "Company") issued a press release announcing positive results from its pivotal efficacy study of KIND-030, a monoclonal antibody targeting canine parvovirus. 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.

Item 9.01 Financial Statements and Exhibits.

<table>
<thead>
<tr>
<th>Exhibit No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>99.1</td>
<td>Press Release of Kindred Biosciences, Inc. issued on September 16, 2020</td>
</tr>
<tr>
<td>104</td>
<td>Cover Page Interactive Data File (embedded within the Inline XBRL document)</td>
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</table>
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: September 16, 2020

By: /s/ Richard Chin

Richard Chin, M.D.
Chief Executive Officer
Kindred Biosciences Announces Positive Results from Pivotal Efficacy Study of Parvovirus Monoclonal Antibody

- Study demonstrated 100% efficacy in prevention of parvovirus infection in prophylactic pivotal study of KIND-030

San Francisco, California (September 16, 2020) - Kindred Biosciences, Inc. (NASDAQ: KIN), a biopharmaceutical company focused on saving and improving the lives of pets, today announced positive results from a pivotal efficacy study of KIND-030, a monoclonal antibody targeting canine parvovirus (CPV). The results showed 100% efficacy in the prevention of parvovirus, as well as a mortality benefit in the treated group.

In this randomized, blinded, placebo-controlled study, KIND-030 was administered to dogs as prophylactic therapy to prevent clinical signs of CPV infection. The primary objectives of the study were met. All of the placebo-control dogs developed parvovirus infection as predefined in the study protocol, while none of the KIND-030 treated dogs developed the disease. Furthermore, the parvovirus challenge resulted in 60% mortality rate in the control dogs compared to 0% mortality rate in the KIND-030 treated dogs.

KIND-030 is currently being pursued for two indications in dogs: prophylactic therapy to prevent clinical signs of canine parvovirus infection and treatment of established parvovirus infection. The pivotal efficacy study for the treatment indication and pivotal safety studies remain on track to be completed by year-end 2020, with approval expected by early 2021.

“We are very pleased with these positive study results, which for the first time provide hope to dogs exposed to this deadly disease,” said KindredBio’s Chief Executive Officer, Richard Chin, M.D. “Parvovirus represents a significant unmet medical need. We believe KIND-030 can transform the way parvovirus infections are treated and prevented.”

CPV is the most significant and contagious viral cause of enteritis in dogs, especially puppies, with mortality rates reportedly as high as 91%. There are currently no Food and Drug Administration or United States Department of Agriculture (USDA) approved treatments for CPV, nor any other available treatment. Currently, owners spend up to thousands of dollars per puppy in supportive care for CPV, with average cost of $1,200.

KIND-030 binds to critical portions of the virus, preventing the virus from entering into cells.

Canine parvovirus typically affects unvaccinated puppies less than 6 months of age, but can occur in unvaccinated dogs of any age. Veterinarians estimate that about half of the puppies they see infected with parvovirus have potentially exposed other puppies to the virus, and each puppy has on average the potential to expose five other puppies to the disease. One study showed 64.5% of dogs entering a shelter had insufficient protective antibody titers against canine parvovirus.

Banfield estimates that there are approximately 250,000 parvo cases in the U.S. each year, excluding emergency hospitals, shelters, specialty hospitals, or undiagnosed cases. Typically this number fluctuates slightly from year to year, but data from [BluePearl](http://www.bluepearl.com), the national pet hospital network,

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recently noted a 70% increase in positive parvovirus cases and hospitalizations in their hospitals during the COVID-19 pandemic.

Regulatory approval and review timeline are subject to the typical risks inherent in such a process. The results stated in this press release have not been reviewed by the USDA Center for Veterinary Biologics.

About Kindred Biosciences

Kindred Biosciences is a biopharmaceutical company developing innovative biologics 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 targets that have already demonstrated safety and efficacy in humans and to develop therapeutics based on these validated targets for dogs and cats. KindredBio has a deep pipeline of novel biologics in development across many therapeutic classes, alongside state-of-the-art biologics manufacturing capabilities and a broad intellectual property portfolio.

For more information, visit: www.kindredbio.com

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 products and our product candidates for the foreseeable future; the likelihood that our revenue will vary from quarter to quarter; our potential inability to obtain any necessary additional financing; our substantial dependence on the success of our products and 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 products and our product candidates and the potential inability of these manufacturers to deliver a sufficient amount of supplies on a timely basis; the uncertain effect of the COVID-19 pandemic on our business, results of operations and financial condition; 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 enter into satisfactory agreements with third-party licensees of our biologic products or to develop a satisfactory sales organization for our equine small molecule products; our significant costs of operating as a public company; potential cyber-attacks on our information technology systems or on our third-party providers’ information technology systems, which could disrupt our operations; our potential inability to repay the secured indebtedness that we have incurred from third-party lenders, and the restrictions on our business activities that are contained in our loan agreement with these lenders; the risk that our 2020 strategic realignment and restructuring plans will result in unanticipated costs or revenue shortfalls; uncertainty about the amount of royalties that we will receive from the sale of Mirataz® to Dechra Pharmaceuticals PLC; our potential inability to obtain and maintain patent protection and other intellectual property protection for our products and 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.

Contacts

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