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):

August 4, 2009

ADVENTRX Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

001-32157

(Commission

File Number)

(State or other jurisdiction of incorporation)

6725 Mesa Ridge Road, Suite 100, San Diego, California

(Address of principal executive offices)

Registrant's telephone number, including area code:

Not Applicable

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))

84-1318182

(I.R.S. Employer Identification No.)

92121

(Zip Code)

858-552-0866

Top of the Form

Item 8.01 Other Events.

On August 4, 2009, ADVENTRX Pharmaceuticals, Inc. issued a press release announcing that it intends to submit an NDA for ANX-530 (vinorelbine emulsion) around the end of 2009 and that it successfully completed the final manufacturing activities related to the submission, which activities were re-started following its June 2009 equity financing. The press release is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

The list of exhibits called for by this Item is incorporated by reference to the Exhibit Index filed with this report.

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.

August 4, 2009

ADVENTRX Pharmaceuticals, Inc.

By: /s/ Patrick L. Keran

Name: Patrick L. Keran Title: Vice President, Legal Exhibit Index

Exhibit No.

Description

99.1

Press Release, dated August 4, 2009



ADVENTRX NARROWS PRIOR GUIDANCE ON NDA SUBMISSION TIMELINE

• Submission Anticipated By Year-End 2009

SAN DIEGO – August 4, 2009 – ADVENTRX Pharmaceuticals, Inc. (NYSE Amex: ANX) today announced that it intends to submit an NDA for ANX-530 (vinorelbine emulsion) by the end of 2009. The Company successfully completed the final manufacturing activities required for the NDA submission, which activities were re-started following the Company's June 2009 equity financing.

"Our recently completed manufacturing activities represented the last major hurdle before our NDA submission," said Brian M. Culley, Principal Executive Officer at ADVENTRX. "While we continue to evaluate the bioequivalence and preclinical data, we have begun the substantial process of compiling the information required for a submission, which we expect to take place by the end of this year."

About ANX-530 (vinorelbine emulsion)

ANX-530 is a novel emulsion formulation of the chemotherapy drug vinorelbine. Navelbine, a branded formulation of vinorelbine, is approved in the U.S. to treat advanced non-small cell lung cancer as a single agent or in combination with cisplatin. Worldwide sales of Navelbine and its generic equivalents in 2006 were in excess of \$200 million. The ANX-530 formulation emulsifies vinorelbine into a homogeneous suspension of nanoparticles that may reduce exposure of the venous endothelium during administration of the drug.

About ADVENTRX Pharmaceuticals

ADVENTRX Pharmaceuticals is a biopharmaceutical company whose product candidates are designed to improve the safety of existing cancer treatments. More information can be found on the Company's web site at <u>www.adventrx.com</u>.

Forward Looking Statements

ADVENTRX cautions you that statements included in this press release that are not a description of historical facts are forward-looking statements that involve risks and assumptions that, if they materialize or do not prove to be accurate, could cause ADVENTRX's results to differ materially from historical results or those expressed or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to: the risk that ADVENTRX will be unable to raise sufficient additional capital on a timely basis to submit an NDA for ANX-530, to fund operations during the FDA review period if an NDA is submitted, or to conduct pre-launch activities should an NDA for ANX-530 be submitted or launch activities should an NDA for ANX-530 be approved; the risk that ADVENTRX will be unable to raise sufficient additional capital on a timely basis to continue as a going concern; the risk that ADVENTRX will seek protection under the provisions of the U.S. Bankruptcy Code; the risk that ADVENTRX will reassess the results of the ANX-530 bioequivalence study and determine to conduct additional bioequivalence studies of ANX-530, including in humans; the potential for regulatory authorities to require additional preclinical work and/or clinical activities to support regulatory filings, including prior to the submission or the approval of an NDA for ANX-530, which activities may increase the cost and timeline to NDA submission or approval; the risk the FDA will determine that ANX-530 and Navelbine® are not bioequivalent, including as a result of performing pharmacokinetic equivalence analysis based on a patient population other than the population on which ADVENTRX based its analysis; the risk of investigator bias in reporting adverse events as a result of the open-label nature of the ANX-530 bioequivalence study, including bias that increased the reporting of adverse events associated with Navelbine and/or that decreased the reporting of adverse events associated with ANX-530; difficulties or delays in manufacturing, obtaining regulatory approval for and marketing ANX-530, including validating commercial manufacturing processes and manufacturers, as well as suppliers; the risk that the performance of third parties on whom ADVENTRX relies to conduct its studies or evaluate the data, including clinical investigators, expert data monitoring committees, contract laboratories and contract research organizations, may be substandard, or they may fail to perform as expected; and other risks and uncertainties more fully described in ADVENTRX's press releases and periodic filings with the Securities and Exchange Commission. ADVENTRX's public filings with the Securities and Exchange Commission are available at www.sec.gov.

You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date when made. ADVENTRX does not intend to update any forward-looking statement as set forth in this press release to reflect events or circumstances arising after the date on which it was made.