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): February 15, 2011

ADVENTRX Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware	001-32157	84-1318182
(State or other jurisdiction of incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)
12390 El Camino Real, Suite 150, San Diego, California		92130
(Address of principal executive offices)		(Zip Code)

Registrant's telephone number, including area code: 858-552-0866

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))

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Item 8.01 Other Events.

On February 15, 2011, ADVENTRX Pharmaceuticals, Inc. issued a press release providing an update on its product candidate, ANX-514 (docetaxel emulsion for injection), following its meeting with the U.S. Food and Drug Administration. 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.

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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.

ADVENTRX Pharmaceuticals, Inc.

February 15, 2011

By: /s/ Patrick L. Keran

Name: Patrick L. Keran
Title: President and Chief Operating Officer

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Exhibit Index

Exhibit No.	Description
99.1	Press release, dated February 15, 2011

ADVENTRX PHARMACEUTICALS PROVIDES UPDATE ON ANX-514

SAN DIEGO – February 15, 2011 – ADVENTRX Pharmaceuticals, Inc. (NYSE Amex: ANX) today provided an update on its product candidate, ANX-514, its polysorbate 80-free formulation of docetaxel. The U.S. Food and Drug Administration (FDA) determined that ANX-514 could not be approved based on the findings from the bioequivalence study of ANX-514 (Study 514-01) and that additional development activities would be required for approval. ADVENTRX met with the FDA to discuss required activities.

"We are pleased with the outcome of our discussion with FDA, at which the conceptual design of a single, additional clinical study that could support approval of ANX-514 was discussed. We believe the study requested by the Agency is reasonable, and we are developing a study protocol for submission to the FDA. We will provide a further update after receiving feedback from FDA on the protocol," said Brian M. Culley, Chief Executive Officer of ADVENTRX.

"We have netted over $50 million from financings during the last 18 months and we intend to use this capital to continue to develop ANX-514, to pursue acquisition opportunities, such as our recently-announced agreement to acquire SynthRx, and to prepare for the commercial launch of Exelbine™, should it be approved," Mr. Culley continued.

ADVENTRX met with the FDA to discuss ANX-514. Prior to the meeting, ADVENTRX submitted to the FDA a data package based on Study 514-01 and published literature. ADVENTRX believes the data package supports the conclusion that comparable clinical outcomes can be expected following treatment with either ANX-514 or Taxotere®, despite Study 514-01 not demonstrating bioequivalence, its primary endpoint, using an unscaled bioequivalence methodology. In particular, the data package concludes that unbound docetaxel concentrations better represent the pharmacokinetics of docetaxel and are better predictors of clinical effects and outcomes.

The FDA did not agree that evaluating bioequivalence using unbound docetaxel concentrations was warranted and determined that data from Study 514-01 was not adequate to conclude that the short period of higher exposure to total docetaxel concentrations observed early in the treatment cycle with ANX-514 do not adversely affect the safety or efficacy of ANX-514 relative to Taxotere.

About ADVENTRX Pharmaceuticals
ADVENTRX Pharmaceuticals is a specialty pharmaceutical company focused on acquiring, developing and commercializing proprietary product candidates principally for the treatment of cancer. More information can be found on the Company's web site at www.adventrx.com.

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 are based on ADVENTRX's current expectations and assumptions. Such forward-looking statements include, but are not limited to, statements regarding the potential for submission and approval of an ANX-514 NDA by the FDA based on a single, additional clinical study, the continued development of ANX-514 by ADVENTRX, including additional clinical and manufacturing work, and ADVENTRX's ability to fund such activities, ADVENTRX's belief that the short period of higher exposure to total docetaxel concentrations observed early in the treatment cycle with ANX-514 in Study 514-01 does not adversely affect the safety or efficacy of ANX-514 relative to Taxotere, the regulatory approval and commercial launch of Exelbine by ADVENTRX, and the potential for pipeline expansion through acquisition of new product candidates or technologies, including consummation of ADVENTRX's acquisition of SynthRx, Inc. Actual events or results may differ materially from those expressed or implied by the forward-looking statements in this press release due to a number of risks and uncertainties, including, without limitation: the potential for the FDA to require significant further nonclinical studies and/or clinical testing of ANX-514, including more than one clinical trial, which generally are more costly and lengthy than bioequivalence trials; the risk that additional nonclinical and/or clinical activities required by the FDA prior to the filing or the approval of a New Drug Application (NDA) for ANX-514 may result in ADVENTRX's determination that the commercial potential of ANX-514 does not justify the required investment and ADVENTRX's discontinuation of the program; the risk that, if ADVENTRX determines to continue development of ANX-514, ADVENTRX may need to raise additional capital to fund the additional development activities required by the FDA and that the necessity of such activities may negatively impact ADVENTRX's ability to raise additional capital for development of and/or partner ANX-514; difficulties or delays in manufacturing ANX-514 for additional clinical or bioequivalence studies; difficulties or delays in obtaining regulatory approval for ANX-514, even if ADVENTRX conducts additional nonclinical and/or clinical activities required by the FDA, including the potential for automatic injunctions regarding FDA approval of ANX-514 and other challenges by patent holders during the Section 505(b)(2) process; difficulties or delays in manufacturing and marketing ANX-514, including validating commercial manufacturing processes and manufacturers, as well as suppliers; ADVENTRX's reliance on the performance of third parties to assist in the conduct of its nonclinical, clinical and bioequivalence studies, regulatory submissions, CMC activities, commercial launch activities and other important aspects of the Exelbine and ANX-514 development programs, and that such third parties may fail to perform as expected; ADVENTRX's current dependence on the success of Exelbine and ANX-514 and the possibility that ADVENTRX does not receive regulatory approval of Exelbine or ANX-514 on a timely basis, or at all; the risk that ADVENTRX may not be able to successfully commercialize Exelbine or ANX-514 if it receives regulatory approval for those product candidates; the risk that ADVENTRX will pursue development activities at levels on timelines, or will incur unexpected expenses, that shorten the period through which its operating funds will sustain it; the potential that Exelbine and/or ANX-514 will be subject to a future collaboration or other strategic transaction; the risk that ADVENTRX's

acquisition of SynthRx, Inc. may not be consummated; the potential for ADVENTRX to enter into a merger or other business combination in connection with a new product candidate acquisition resulting in a successor entity that focuses its resources on developing products and product candidates other than ADVENTRX's existing product candidates, including Exelbine and ANX-514; 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 forward-looking statements, which speak only as of the date when made. ADVENTRX does not intend to revise or update any forward-looking statement set forth in this press release to reflect events or circumstances arising after the date hereof, except as may be required by law.

Company Contact:
ADVENTRX Pharmaceuticals
Ioana C. Hone (ir@adventrx.com)
858-552-0866 Ext. 303

Investor Contact:
Lippert/Heilshorn & Associates, Inc.
Don Markley (dmarkley@lhai.com)
310-691-7100

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