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): September 14, 2010

# 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.) |
| 6725 Mesa Ridge Road, Suite 100, San Diego, California | | 92121 |
| (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 September 14, 2010, ADVENTRX Pharmaceuticals, Inc. issued a press release announcing the results of stability tests performed on samples of ANX-530 (vinorelbine injectable emulsion), or ExelbineTM, manufactured at ADVENTRX's intended commercial manufacturing site. The 12-month stability data are consistent with the stability data collected at 6 and 9 months. 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.

*September 14, 2010*

*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 September 14, 2010 |

# ADVENTRX ANNOUNCES 12-MONTH STABILITY DATA RESULTS FOR ANX-530

**SAN DIEGO (September 14, 2010)** – ADVENTRX Pharmaceuticals, Inc. (NYSE Amex: ANX) today announced the results of stability tests performed on samples of ANX-530 (vinorelbine injectable emulsion), or Exelbine™, manufactured at the Company's intended commercial manufacturing site. The 12-month stability data are consistent with the stability data collected at 6 and 9 months and will support the Company's submission of a New Drug Application (NDA) for Exelbine, which the Company expects to take place in the fourth quarter of this year.

**About ADVENTRX Pharmaceuticals**
ADVENTRX Pharmaceuticals is a specialty pharmaceutical company whose product candidates are being developed to improve the performance of existing anti-cancer drugs by addressing limitations associated principally with their safety and use. 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. Examples of forward-looking statements include, but are not limited to, statements regarding ADVENTRX's submission of an Exelbine NDA. 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 risk that future stability testing results do not support comparability between ADVENTRX's prior and intended commercial manufacturing sites or a commercially-viable expiration dating period; the risk that the FDA does not accept a submitted Exelbine NDA for review, including as a result of identifying clinical or nonclinical reasons for a refusal-to-file or identifying CMC reasons that were not identified in the refusal-to-file of the previously submitted Exelbine NDA; the potential that changes made in transferring the manufacturing process for Exelbine may result in a lack of comparability between the commercial product and the material used in the bioequivalence trial, and that the FDA may require ADVENTRX to perform additional nonclinical, bioequivalence or clinical studies; the potential for the FDA to impose other requirements to be completed before or after approval of an Exelbine NDA; 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.

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