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): April 30, 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 2.02 Results of Operations and Financial Condition.

On April 30, 2010, ADVENTRX Pharmaceuticals, Inc. issued a press release announcing its financial results for the three-months ended March 31, 2010. A copy of this press release is furnished as Exhibit 99.1 hereto.

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.

The information set forth under Item 2.02 and in Exhibit 99.1 is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934 and is not to be incorporated by reference into any filing of the registrant, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

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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.

April 30, 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 April 30, 2010

ADVENTRX REPORTS FIRST QUARTER FINANCIAL RESULTS

SAN DIEGO – April 30, 2010 – ADVENTRX Pharmaceuticals, Inc. (NYSE Amex: ANX) today reported financial results for the three months ended March 31, 2010.

"We ended the first quarter with a strong balance sheet reflecting $19.8 million in cash, against quarterly operating expenses of $2.4 million," said Brian M. Culley, ADVENTRX's Chief Executive Officer. "This capital will support our operations while we conduct stability studies from the intended commercial manufacturer of ANX-530, or Exelbine™, which is required to file the Exelbine New Drug Application, and also further the development of our detergent-free reformulation of the blockbuster chemotherapy drug, Taxotere®.

"We look forward to resubmitting our first NDA later this year, as well as meeting with the Food and Drug Administration to discuss the results of our bioequivalence study of ANX-514," Mr. Culley continued. "In addition, we have begun to review opportunities to enhance our product pipeline with additional drug development programs."

First Quarter Financial Results

ADVENTRX's net loss applicable to common stock for the first quarter of 2010 was $4.9 million, or $0.48 per share, compared to a net loss applicable to common stock of $3.2 million, or $0.87 per share, for the same period in 2009. Included in the net loss applicable to common stock for the first quarter of 2010 was a non-cash, deemed dividend expense of $2.5 million incurred in connection with the Company's January 2010 equity financing.

Research and development (R&D) expenses for the first quarter of 2010 were $1.2 million, a decrease of $0.4 million, or 25%, compared to $1.6 million for the same period in 2009. The decrease primarily was due to a decrease in personnel costs attributable to lower headcount in 2010 and the completion of severance payments associated with the Company's 2009 and 2008 workforce reductions by June 30, 2009, a decrease in external bioequivalence trial expenses associated with the completion of patient enrollment in the ANX-514 bioequivalence study in the first quarter of 2009, offset by increased expenses in research-related manufacturing for ANX-514 and increase in costs attributable to consulting services related to Exelbine and ANX-514.

Selling, general and administrative (SG&A) expenses for the first quarter of 2010 were $1.2 million, a decrease of $0.6 million, or 34%, compared to $1.8 million for the same period in 2009. The decrease primarily was due to a decrease in personnel costs attributable to lower headcount in 2010 as a result of the Company's workforce reductions in 2009.

Balance Sheet Highlights

As of March 31, 2010, the Company had cash of $19.8 million and stockholders' equity of $18.8 million.

Reverse Stock Split

On April 23, 2010 at 4:01 p.m. Eastern time, ADVENTRX effected a 1-for-25 reverse split of its outstanding shares of common stock. All share and per-share information in this press release reflect the reverse stock split. Share and per-share information related to dates or periods prior to April 23, 2010 have been restated to reflect retrospective application of the reverse stock split.

About ADVENTRX Pharmaceuticals

ADVENTRX Pharmaceuticals is a specialty pharmaceutical company whose product candidates are designed to improve the performance of existing cancer treatments by addressing limitations associated principally with their safety and use. More information can be found on the Company's website 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 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: ADVENTRX's dependence on the success of Exelbine and ANX-514, and uncertainty as to whether either product candidate will receive regulatory approval on a timely basis, or at all, or be commercialized successfully; uncertainty regarding additional product candidates ADVENTRX may seek to acquire and the costs associated with developing and seeking approval of any such product candidates; the potential for regulatory authorities to require additional preclinical work and/or clinical activities to support regulatory filings, including prior to the filing or the approval of an NDA for Exelbine and/or ANX-514, which activities may increase the cost and timeline to NDA filling or approval and negatively impact ADVENTRX's ability to raise additional capital or partner its lead product candidates; the risk that ADVENTRX will pursue development activities at levels or on timelines, or will incur unexpected expenses, that shortens the period through which its operating funds will sustain it; the potential that changes made in transferring the manufacturing process for Exelbine and/or ANX-514 may result in a lack of comparability between the commercial product and the material used in clinical trials, and that FDA may require ADVENTRX to perform additional non-clinical or clinical studies; the risk the FDA will determine that Exelbine and Navelbine® and/or ANX-514 and Taxotere are not bioequivalent, including as a result of performing bioequivalence analysis based on a patient population other than the population on which ADVENTRX based its analysis or determining that increased docetaxel blood-levels during and immediately following infusion are clinically relevant; difficulties or delays in manufacturing, obtaining regulatory approval for and marketing Exelbine and/or ANX-514, including validating commercial manufacturing processes and manufacturers, as well as suppliers, and the potential for automatic injunctions regarding FDA approval of ANX-514; ADVENTRX's reliance on the performance of third parties to assist in the conduct of its bioequivalence trials, regulatory submissions, CMC activities and other important aspects of the Exelbine and ANX-514

development programs, including on-going stability studies for Exelbine and analysis of the ANX-514 bioequivalence trial data, and that such third parties 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.

Contact:
ADVENTRX Pharmaceuticals
Brian Culley, Chief Executive Officer
858-552-0866

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

ADVENTRX Pharmaceuticals, Inc.
(A Development Stage Enterprise)
Summary Consolidated Financial Information
(In 000s except for per share data)
Consolidated Statement of Operations Data:

	Three Months Ended March 31,	
	2010	**2009**
	(unaudited)	(unaudited)
Revenues	$ —	$ 300
Operating expenses:		
Research and development	1,239	1,648
Selling, general and administrative	1,175	1,779
Depreciation and amortization	6	32
Total operating expenses	2,420	3,459
Loss from operations	(2,420)	(3,159)
Interest / Other income (expense)	17	2
Loss before income taxes	(2,403)	(3,157)
Provision for income taxes	—	—
Net loss	$ (2,403)	$(3,157)
Deemed Dividends on preferred stock	(2,515)	—
Net Loss applicable to common stock	$ (4,918)	$(3,157)
Net loss per share – basic and diluted	$ (0.48)	$ (0.87)
Weighted average shares – basic and diluted	10,144	3,610

Balance Sheet Data:

	March 31, 2010	**December 31, 2009**
	(unaudited)	
Total cash	$19,812	$ 8,667
Total current assets	20,027	8,972
Total current liabilities	1,247	2,354
Stockholders' equity	18,828	6,674

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