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): March 10, 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))

Top of the Form

Item 2.02 Results of Operations and Financial Condition.

On March 10, 2011, ADVENTRX Pharmaceuticals, Inc. (the "Company") issued a press release announcing its financial results for the three months and year ended December 31, 2010. A copy of this press release is furnished as Exhibit 99.1 hereto.

The attached press release contains pro forma financial information. "Pro forma" is not a term defined by U.S. generally accepted accounting principles ("GAAP"). The non-GAAP pro forma cash information presented in the press release should be considered in addition to, not as a substitute for, or superior to, financial measures calculated in accordance with GAAP. Reconciliations between GAAP information and pro forma cash information are provided in the press release. The Company believes the pro forma cash information presented in the press release may be useful to investors in evaluating the Company's actual and effective cash positions following its January 2011 equity financing. The Company's management uses the pro forma information presented in the press release to assess the Company's cash position going into 2011 and to budget for 2011 operations.

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.

Top of the Form

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.

March 10, 2011

By: /s/ Patrick L. Keran

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

Top of the Form

Exhibit Index

Exhibit No.	Description
99.1	Press release, dated March 10, 2011

ADVENTRX REPORTS FOURTH QUARTER AND FULL YEAR 2010 FINANCIAL RESULTS

Recent Highlights

- **Definitive agreement to acquire SynthRx and purified poloxamer 188**
- **$47.2 million in cash at March 1, 2011**
- **Exelbine NDA submitted to and accepted by FDA o September 1, 2011 PDUFA goal date**
- **Pipeline expansion activities on-going**

SAN DIEGO – March 10, 2011 – ADVENTRX Pharmaceuticals, Inc. (NYSE Amex: ANX) today reported financial results for the fourth quarter and year ended December 31, 2010.

“Our activities over the past 18 months have positioned ADVENTRX for success in 2011 and beyond. Near-term, we continue to prepare for the commercial launch of Exelbine and our September 1 PDUFA date. Over the next 12 months, we expect to reach agreement with FDA on phase 3 clinical trials for both ANX-514 and purified poloxamer 188, providing a robust, late-stage pipeline to complement Exelbine as it moves toward marketing approval,” said Brian M. Culley, chief executive officer at ADVENTRX.

“FDA’s request for additional safety data for ANX-514 provides an opportunity to investigate the clinical benefits of our polysorbate 80-free docetaxel formulation. These benefits, if demonstrated, will differentiate ANX-514 from Taxotere and other detergent-containing formulations in the sizeable docetaxel market,” Mr. Culley continued.

“We’re very excited about the near- and long-term news flow from purified poloxamer 188, ANX-514 and Exelbine. In addition, we continue to evaluate strategic acquisitions that would further enhance our product pipeline and create value for our stockholders, while maintaining appropriate controls on our expenditures” Mr. Culley concluded.

Fourth Quarter 2010 Operating Results

ADVENTRX’s net loss applicable to common stock for the fourth quarter of 2010 was $2.3 million, or $0.15 per share, compared to a net loss applicable to common stock of $6.5 million, or $1.00 per share, for the same period in 2009. Included in the net loss applicable to common stock for the fourth quarter of 2009 was a non-cash, deemed dividend expense of $3.3 million incurred in connection with the Company’s October 2009 equity financing.

Research and development (R&D) expenses for the fourth quarter of 2010 were $0.9 million, a decrease of $1.1 million, or 55%, compared to $2.0 million for the same period in 2009. The decrease was due primarily to a $1.4 million decrease in external nonclinical study fees and expenses partially offset by a $0.1 million increase in personnel costs and a $0.2 million increase in external bioequivalence clinical consulting fees for ANX-514. The decrease in external nonclinical study fees and expenses resulted largely from a $0.5 million decrease in research-related manufacturing expenses for Exelbine, a $0.5 million decrease in regulatory-related consulting fees for Exelbine and a $0.5 million decrease in research-related manufacturing expenses for ANX-514, partially offset by a $0.1 million increase in toxicology study expenses related to Exelbine.

Selling, general and administrative (SG&A) expenses for the fourth quarter of 2010 were $1.9 million, an increase of $0.6 million, or 46%, compared to $1.3 million for the same period in 2009. The increase was due primarily to a $0.3 million increase in fees for professional legal, audit and tax services, a $0.2 million increase in consulting fees, a $0.2 million increase in Delaware corporate franchise tax and a $0.1 million increase in share-based compensation expense, partially offset by a $0.2 million decrease in personnel costs.

Full-Year 2010 Operating Results

ADVENTRX’s net loss applicable to common stock for 2010 was $14.1 million, or $1.07 per share, compared to a net loss applicable to common stock of $16.2 million, or $3.47 per share, for 2009. Included in the net loss applicable to common stock for 2010 and 2009 were non-cash deemed dividend expenses of $5.6 million and $4.9 million, respectively, incurred in connection with the Company’s 2010 and 2009 registered direct equity financings. Also included in the net loss and net loss applicable to common stock for 2009 were charges associated with the Company’s 2009 and 2008 workforce reductions.

R&D expenses for 2010 were $3.7 million, a decrease of $2.8 million, or 43%, compared to $6.5 million for 2009. The decrease was due primarily to a $1.9 million decrease in external nonclinical study fees and expenses, resulting largely from to a $2.6 million decrease in research-related manufacturing expenses for Exelbine and a $0.1 million decrease in regulatory-related consulting fees for Exelbine, partially offset by a $0.5 million increase in fees for regulatory-related consulting fees for ANX-514 and a $0.3 million increase in toxicology study expenses related to Exelbine.

SG&A expenses for 2010 were $5.3 million, an increase of $0.3 million, or 6%, compared to $5.0 million for 2009. The increase was due primarily to a $0.5 million increase in consulting fees, a $0.2 million increase in Delaware corporate franchise tax and a $0.2 million increase in share-based compensation expense, partially offset by a $0.5 million decrease in personnel costs attributable to lower headcount and the absence of severance costs in 2010 and a $0.1 million decrease in fees for professional legal, audit and tax services.

Balance Sheet Highlights

As of December 31, 2010, the Company had cash totaling $28.0 million. Stockholders' equity amounted to $26.7 million as of December 31, 2010. Taking into account net proceeds of $21.0 million from the equity financing completed in January 2011, pro forma cash at December 31, 2010 was $49.0 million.

Note Regarding Use of Non-GAAP Financial Measures

"Pro forma" is not a term defined by U.S. generally accepted accounting principles (GAAP). The non-GAAP pro forma cash information presented herein should be considered in addition to, not as a substitute for, or superior to, financial measures calculated in accordance with GAAP. The Company believes the pro forma cash information presented herein may be useful to investors in evaluating the Company's actual and effective cash positions following its January 2011 equity financing. The Company's management uses the pro forma information presented herein to assess the Company's cash position going into 2011 and to budget for 2011 operations.

About ADVENTRX Pharmaceuticals

ADVENTRX Pharmaceuticals is a specialty pharmaceutical company focused on acquiring, developing and commercializing proprietary product candidates. The Company's current lead product candidates include novel emulsion formulations of currently marketed chemotherapy drugs. 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 Company's expectations for success in 2011 and beyond, the timing and receipt of FDA approval of Exelbine, ADVENTRX's expectation of closing its acquisition of SynthRx, Inc., development plans for ANX-514 and purified poloxamer 188, differentiation of ANX-514 from Taxotere and other detergent-containing formulations of docetaxel, the potential size of the market for ANX-514, and additional strategic transactions that would enhance ADVENTRX's product pipeline and create value for stockholders. 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 ADVENTRX does not receive FDA approval of Exelbine on a timely basis, or at all; the potential for the FDA to impose other requirements to be completed before or after approval of the Exelbine NDA, including that the FDA may require ADVENTRX to perform additional nonclinical, bioequivalence or clinical studies; the risk that ADVENTRX does not consummate its acquisition of SynthRx on a timely basis, or at all; the potential for the FDA to require significant additional nonclinical studies and/or clinical testing of ANX-514 and/or purified poloxamer 188 for the treatment of sickle cell crisis in children, including more than one clinical trial; the risk that additional nonclinical and/or clinical study results that may be required by the FDA do not support the safety or efficacy or the commercial viability of Exelbine, ANX-514 or purified poloxamer 188 and that ADVENTRX consequently determines to discontinue one or more of those development programs; difficulties or delays in obtaining regulatory approval for its product candidates, even if ADVENTRX conducts additional nonclinical and/or clinical activities required by the FDA; difficulties or delays in manufacturing material for clinical or bioequivalence studies of its product candidates; 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; difficulties or delays in manufacturing Exelbine and any other product candidate on a commercial scale, should they receive regulatory approval, including validating commercial manufacturing processes and manufacturers, as well as suppliers; difficulties or delays in marketing Exelbine and any other product candidate, should they receive regulatory approval, including developing or acquiring marketing, sales and distribution capabilities; the risk that ADVENTRX may not be able to successfully commercialize its product candidates, even if it receives regulatory approval for one or more of them; ADVENTRX's past and continued 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 have failed or may fail to perform as expected; the risk that ADVENTRX will pursue development activities at levels or on timelines, or will incur unexpected expenses, that shorten the period through which its operating funds will sustain it; the potential for ADVENTRX to raise additional capital to fund the development and/or commercialization activities for current and/or future product candidates; the potential that one or more of ADVENTRX's product candidates will be subject to a future collaboration or other strategic transaction and that such partnership or transaction may not succeed in developing or commercializing its product candidates; 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.

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

[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	Year ended

	December 31,		December 31,	
	2010	**2009**	**2010**	**2009**
	(unaudited)	(unaudited)		
Licensing revenue	$ —	$ —	$ —	$ 300
Grant revenue	$ 489	$ —	$ 489	$ —
Total net revenue	$ 489	$ —	$ 489	$ 300
Operating expenses:				
Research and development	898	1,962	3,689	6,508
Selling, general and administrative	1,897	1,253	5,320	4,998
Depreciation and amortization	3	10	20	80
Total operating expenses	2,798	3,225	9,029	11,586
Loss from operations	(2,309)	(3,225)	(8,540)	(11,286)
Interest income (expense) / Other income (expense)	24	5	89	(39)
Loss before income taxes	(2,285)	(3,220)	(8,451)	(11,325)
Provision for income taxes	—	—	—	—
Net loss	(2,285)	(3,220)	(8,451)	(11,325)
Deemed dividends on preferred stock	—	(3,258)	(5,640)	(4,867)
Net loss applicable to common stock	$ (2,285)	$ (6,478)	$ (14,091)	$ (16,192)
Net loss per share – basic and diluted	$ (0.15)	$ (1.00)	$ (1.07)	$ (3.47)
Weighted average shares – basic and diluted	14,921	6,509	13,181	4,667

** Sums may not equal totals due to rounding.*

† Share and per share information reflect the 1-for-25 reverse split of outstanding common stock that took place on April 23, 2010 at 4:01 p.m. Eastern time. 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.

Balance Sheet Data:

	2010	**2009**
Total cash	$27,979	$ 8,667
Working capital	26,608	6,619
Total assets	28,487	9,027
Total liabilities	1,801	2,354
Stockholders' equity	26,685	6,674