

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

**FORM 8-K/A
(AMENDMENT NO. 4)**

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 8, 2011

ADVENTRX Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation)

001-32157
(Commission File Number)

84-1318182
(IRS Employer Identification No.)

12390 El Camino Real, Suite 150, San Diego, CA
(Address of Principal Executive Offices)

92130
(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))

EXPLANATORY NOTE

On April 8, 2011, ADVENTRX Pharmaceuticals, Inc. (the “Company”) completed its acquisition of SynthRx, Inc. (“SynthRx”) pursuant to the terms of the Agreement and Plan of Merger dated February 12, 2011, by and among the Company, SRX Acquisition Corporation, a wholly owned subsidiary of the Company, SynthRx and, solely with respect to Sections 2 and 8 of the agreement, an individual who was a principal stockholder of SynthRx, and SynthRx became a wholly owned subsidiary of the Company. The Company’s acquisition of SynthRx and related matters were reported in the Company’s Current Report on Form 8-K filed on April 11, 2011 (the “Original Current Report”) and the financial statements of SynthRx and the pro forma financial information required by Item 9.01(a)(1) and (b)(1) of Form 8-K were reported in the Company’s Amendment No. 1 to the Original Current Report filed on June 3, 2011 (“Amendment No. 1”). On October 25, 2011, the Company filed Amendment No. 2 to the Original Current Report (“Amendment No. 2”) to provide the financial statements of SynthRx for the three months ended March 31, 2011 and unaudited pro forma condensed combined financial information for the six months ended June 30, 2011. On November 9, 2011, the Company filed Amendment No. 3 to the Original Current Report (“Amendment No. 3”) to provide unaudited pro forma condensed combined financial information for the nine months ended September 30, 2011.

The Company is filing this Amendment No. 4 to the Original Current Report to provide unaudited pro forma condensed combined financial information for the year ended December 31, 2011. In addition, the Company’s Annual Report on Form 10-K for the year ended December 31, 2011, which was filed on March 8, 2012, includes estimated fair values, as of December 31, 2011, of net tangible and intangible assets acquired and liabilities assumed in the SynthRx acquisition, which supersedes the preliminary estimated fair values of such assets and liabilities included in Exhibit 99.3, which was filed with Amendment No. 1. Except as described above, all information in and exhibits to the Original Current Report, Amendment No. 1, Amendment No. 2 and Amendment No. 3 remain unchanged.

Item 9.01 Financial Statements and Exhibits.**(b) Pro Forma Financial Information**

The following unaudited pro forma financial information is attached as Exhibit 99.7 to this report and is incorporated herein by reference:

- Unaudited pro forma condensed combined statement of operations for the year ended December 31, 2011, and the notes related thereto

(d) Exhibits.

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

SIGNATURE

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.

Dated: March 8, 2012

By: /s/ Patrick L. Keran

Name: Patrick L. Keran

Title: President and Chief Operating Officer

Exhibit Index

<u>Exhibit No.</u>	<u>Description</u>
2.1*(1)	Agreement and Plan of Merger, dated February 12, 2011, by and among the registrant, SRX Acquisition Corporation, SynthRx, Inc. and, solely with respect to Sections 2 and 8, the Stockholders' Agent
10.1*(1)	Stockholders' Voting and Transfer Restriction Agreement, dated February 12, 2011, by and among the registrant, each of the principal stockholders of SynthRx, Inc. and, solely with respect to Section 3(c), the Stockholders' Agent
10.2*(1)	License Agreement, dated June 8, 2004, between SynthRx, Inc. and CytRx Corporation, as amended by that certain Letter Agreement Re: Amendment to License Agreement, dated August 3, 2006, and that certain Agreement and Amendment No. 2 to License Agreement, dated December 1, 2010
23.1(2)	Consent of J.H. Cohn LLP
99.1(1)	Press Release issued by ADVENTRX Pharmaceuticals, Inc. on April 11, 2011
99.2(2)	Audited balance sheets of SynthRx, Inc. (a development stage enterprise) as of December 31, 2010 and 2009 and the related audited statements of operations, stockholders' deficit and cash flows for the years then ended and for the period from inception (January 12, 2004) through December 31, 2010, and the notes related thereto
99.3(2)	Unaudited pro forma condensed combined balance sheet as of December 31, 2010 and the related unaudited pro forma condensed combined statement of operations for the year then ended, and the notes related thereto
99.4(3)	Balance sheet (unaudited) of SynthRx, Inc. (a development stage enterprise) as of March 31, 2011 and the related statements of operations and cash flows (unaudited) for the three months ended March 31, 2011 and 2010, and the period from inception (January 12, 2004) through March 31, 2011, and the notes related thereto
99.5(3)	Unaudited pro forma condensed combined statement of operations for the six months ended June 30, 2011, and the notes related thereto
99.6(4)	Unaudited pro forma condensed combined statement of operations for the nine months ended September 30, 2011, and the notes related thereto
99.7	Unaudited pro forma condensed combined statement of operations for the year ended December 31, 2011, and the notes related thereto
*	Certain confidential portions of this exhibit were omitted by means of redacting a portion of the text. Confidential treatment of such confidential portions was requested by the registrant under Rule 24b-2 under the Securities Exchange Act of 1934, as amended, and has been granted by order of the U.S. Securities and Exchange Commission dated June 6, 2011.
(1)	Filed with the registrant's Current Report on Form 8-K on April 11, 2011 (SEC file number 001-32157-11752769)
(2)	Filed with the registrant's Amendment No. 1 to Current Report on Form 8-K on June 3, 2011 (SEC file number 001-32157-1189227)
(3)	Filed with the registrant's Amendment No. 2 to Current Report on Form 8-K on October 25, 2011 (SEC file number 001-32157-111157223)
(4)	Filed with the registrant's Amendment No. 3 to Current Report on Form 8-K on November 9, 2011 (SEC file number 001-32157-111191884)

UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF OPERATIONS

The accompanying unaudited pro forma condensed combined statement of operations presents the pro forma consolidated results of operations of the combined company for the year ended December 31, 2011 based upon the historical financial statements of ADVENTRX Pharmaceuticals, Inc. (“ADVENTRX”) and SynthRx, Inc. (“SynthRx”), after giving effect to the acquisition of SynthRx and adjustments described in the following footnotes, and is intended to reflect the impact of this acquisition on ADVENTRX on a pro forma basis.

On April 8, 2011, SRX Acquisition Corporation, a Delaware corporation and wholly owned subsidiary of ADVENTRX (“Merger Sub”), merged with and into SynthRx, Inc. pursuant to the terms of the Agreement and Plan of Merger, dated February 12, 2011 (the “Merger Agreement”), by and among ADVENTRX, Merger Sub, SynthRx and, solely with respect to Sections 2 and 8 of the Merger Agreement, an individual who was a principal stockholder of SynthRx, the separate existence of Merger Sub ceased and SynthRx continued as the surviving corporation and a wholly owned subsidiary of ADVENTRX. As of the effective time of the merger, all issued and outstanding securities of SynthRx were automatically converted and exchanged into the right to receive from ADVENTRX the consideration set forth in the Merger Agreement.

The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2011 combines ADVENTRX’s historical results for the year ended December 31, 2011 with SynthRx’s historical results for the three months ended March 31, 2011. The unaudited pro forma statement of operations gives effect to the acquisition as if it had been consummated on January 1, 2010. The unaudited pro forma condensed combined statement of operations is presented for illustrative purposes only. It does not purport to represent what ADVENTRX’s consolidated results of operations would have been had the transaction actually occurred as of January 1, 2010, and it does not purport to project ADVENTRX’s future consolidated results of operations.

We have not presented a pro forma condensed combined balance sheet as of December 31, 2011, because the impact of the acquisition of SynthRx, which was completed on April 8, 2011, is reflected in the condensed consolidated balance sheet of ADVENTRX Pharmaceuticals, Inc. as of December 31, 2011, included in ADVENTRX’s Annual Report on Form 10-K for the year ended December 31, 2011, which was filed with the Securities and Exchange Commission on March 8, 2012.

Pro Forma Adjustments

The historical consolidated financial information has been adjusted to give effect to pro forma events that are (1) directly attributable to the acquisition and (2) factually supportable and reasonable under the circumstances. There are no events that are expected to have a continuing impact and therefore, no adjustments to the pro forma condensed combined statement of operations were made in that regard.

The pro forma adjustments are based upon available information and certain assumptions that ADVENTRX believes are reasonable under the circumstances.

You should read this information in conjunction with:

- the accompanying notes to the unaudited pro forma condensed combined financial statements included in this Exhibit 99.7 to this Current Report on Form 8-K/A (Amendment No. 4);
- the consolidated financial statements of ADVENTRX and Subsidiaries as of December 31, 2011 and for the year ended December 31, 2011 included in ADVENTRX’s Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 8, 2012;
- ADVENTRX’s Current Report on Form 8-K related to its acquisition of SynthRx filed with the Securities and Exchange Commission on April 11, 2011;
- ADVENTRX’s Amendment No. 1 to the Current Report on Form 8-K related to its acquisition of SynthRx filed with the Securities and Exchange Commission on June 3, 2011; and
- ADVENTRX’s Amendment No. 2 to the Current Report on Form 8-K related to its acquisition of SynthRx filed with the Securities and Exchange Commission on October 25, 2011.
- ADVENTRX’s Amendment No. 3 to the Current Report on Form 8-K related to its acquisition of SynthRx filed with the Securities and Exchange Commission on November 9, 2011.

ADVENTRX PHARMACEUTICALS, INC.
(A Development Stage Enterprise)
UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF OPERATIONS
YEAR ENDED DECEMBER 31, 2011

	ADVENTRX	SynthRx	Pro Forma Adjustments	Pro Forma Combined
Grant revenue	\$ —	\$ —	\$ —	\$ —
Cost of goods sold	—	—	—	—
Gross margin	—	—	—	—
Operating expenses:				
Research and development	5,758,337	3,000	—	5,761,337
Selling, general and administrative	7,190,093	35,277	—	7,225,370
Transaction-related expenses	410,885	301,566	58,887(a)	771,338
Depreciation and amortization	37,570	—	—	37,570
Total operating expenses	<u>13,396,885</u>	<u>339,843</u>	<u>58,887</u>	<u>13,795,615</u>
Loss from operations	(13,396,885)	(339,843)	(58,887)	(13,795,615)
Interest income	76,587	26	—	76,613
Interest expense	(11,010)	(1,746)	1,746(b)	(11,010)
Other expense	71,377	—	—	71,377
Loss before income taxes	(13,259,931)	(341,563)	(57,141)	(13,658,635)
Provision for income taxes	—	—	—	—
Net loss	(13,259,931)	(341,563)	(57,141)	(13,658,635)
Deemed dividends on preferred stock	—	—	—	—
Net loss applicable to common stock	<u>\$(13,259,931)</u>	<u>\$(341,563)</u>	<u>\$ (57,141)</u>	<u>\$(13,658,635)</u>
Loss per common share – basic and diluted	<u>\$ (0.47)</u>			<u>\$ (0.47)</u>
Weighted average shares outstanding – basic and diluted	<u>28,175,221</u>			<u>28,919,557</u>

See accompanying notes to unaudited pro forma condensed combined statement of operations.

ADVENTRX PHARMACEUTICALS, INC.
(A Development Stage Enterprise)
NOTES TO UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF OPERATIONS

1. Basis of Presentation

The unaudited pro forma condensed combined statement of operations included herein has been prepared pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and certain footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles in the United States ("U.S. GAAP") have been condensed or omitted pursuant to such rules and regulations; however, management believes that the disclosures are adequate to make the information presented not misleading.

We have not presented a pro forma condensed combined balance sheet as of December 31, 2011, because the impact of the acquisition of SynthRx, which was completed on April 8, 2011, is reflected in the consolidated balance sheet of ADVENTRX Pharmaceuticals, Inc. as of December 31, 2011, included in ADVENTRX's Annual Report on Form 10-K for the period ended December 31, 2011, which was filed with the Securities and Exchange Commission on March 8, 2012.

2. Acquisition of SynthRx

On April 8, 2011, SynthRx, a private biotechnology company developing a novel, purified, rheologic and antithrombotic compound, poloxamer 188, now referred to as ANX-188, became a wholly owned subsidiary of ADVENTRX pursuant to the terms of the Agreement and Plan of Merger, dated February 12, 2011 (the "Merger Agreement"), by and among ADVENTRX, SRX Acquisition Corporation, a wholly owned subsidiary of ADVENTRX, SynthRx and, solely with respect to Sections 2 and 8 of the Merger Agreement, an individual who was a principal stockholder of SynthRx. The acquisition is accounted for as a business combination.

As consideration for the transaction, all shares of SynthRx common stock outstanding immediately prior to the effective time of the merger were cancelled and automatically converted into the right to receive shares of ADVENTRX's common stock, in the aggregate, as follows:

(i) 862,078 shares (the "Fully Vested Shares") of ADVENTRX's common stock, which shares were issued on April 8, 2011 and represent 1,000,000 shares, less 137,922 shares that were deducted as a result of certain expenses of SynthRx, and 200,000 of which were deposited into escrow (the "Closing Escrow Amount") to indemnify ADVENTRX against breaches of representations and warranties;

(ii) up to 1,938,773 shares of ADVENTRX's common stock, which shares were issued and outstanding on April 8, 2011 (the "Subject to Vesting Shares," and together with the 862,078 Fully Vested Shares issued to the former stockholders of SynthRx and the escrow agent, the "Closing Shares"), which Subject to Vesting Shares are subject to various repurchase rights by ADVENTRX and fully vest, subject to various repurchase rights by us and fully vest, subject to reduction under certain circumstances as follows, upon achievement of the First Milestone (defined below). Up to approximately 75% of the Subject to Vesting Shares, or 1,454,079 shares, are subject to repurchase by us for \$0.001 per share based on whether the First Milestone is achieved, the timing of its achievement and whether and the extent to which the number of evaluable patients planned to target statistical significance with a p value of 0.01 in the primary endpoint exceeds 250 patients, unless otherwise agreed;

(iii) up to 1,000,000 shares of ADVENTRX's common stock, which shares will be issued, if at all, upon achievement of the First Milestone; provided, however, that in the event the First Milestone is achieved prior to the first anniversary of the closing of the merger, 20% of the First Milestone Shares shall be deposited into escrow (the "First Milestone Escrow Amount," and together with the Closing Escrow Amount, the "Escrow Amount"). The "First Milestone" means the dosing of the first patient in a phase 3 clinical study carried out pursuant to a protocol that is mutually agreed to by SynthRx and ADVENTRX; provided, however, that the number of evaluable patients planned to target statistical significance with a p value of 0.01 in the primary endpoint shall not exceed 250 (unless otherwise mutually agreed) (the "First Protocol"). In the event that the FDA indicates that a single phase 3 clinical study will not be adequate to support approval of a new drug application covering the use of purified poloxamer 188 for the treatment of sickle cell crisis in children (the "188 NDA"), "First Milestone" shall mean the dosing of the first patient in a phase 3 clinical study carried out pursuant to a protocol that (a) is mutually agreed to by SynthRx and ADVENTRX as such and (b) describes a phase 3 clinical study that the FDA has indicated may be sufficient, with the phase 3 clinical study described in the First Protocol, to support approval of the 188 NDA. The amount of shares that becomes issuable upon achievement of the First Milestone may be reduced by up to 75%, or 750,000 shares, based on the timing of achievement of the First Milestone and whether and the extent to which the number of evaluable patients planned to target statistical significance with a p value of 0.01 in the primary endpoint exceeds 250 patients, unless otherwise agreed;

(iv) 3,839,400 shares of ADVENTRX's common stock, which shares will be issued, if at all, upon achievement of the Second Milestone. The "Second Milestone" means the acceptance for review of the 188 NDA by the FDA; and

(v) 8,638,650 shares of ADVENTRX's common stock, which shares will be issued, if at all, upon achievement of the Third Milestone. The "Third Milestone" means the approval by the FDA of the 188 NDA.

3. Pro Forma Condensed Combined Statement of Operations

The unaudited pro forma condensed combined statement of operations presents the pro forma consolidated results of operations of the combined company based upon the historical financial statements of ADVENTRX and SynthRx, after giving effect to the SynthRx acquisition and adjustments described in the following footnotes, and are intended to reflect the impact of this acquisition on ADVENTRX on a pro forma basis.

The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2011 combines ADVENTRX's historical results for the year ended December 31, 2011 (audited) with SynthRx's historical results for the three months ended March 31, 2011 (unaudited). The unaudited pro forma statement of operations gives effect to the acquisition as if it had taken place on January 1, 2010.

The unaudited pro forma condensed combined statement of operations is presented for illustrative purposes only.

4. Pro Forma Adjustments

The pro forma adjustments included in the unaudited pro forma condensed combined statement of operations are as follows:

- a. To eliminate transaction-related expenses incurred in connection with the SynthRx acquisition. Refer to Note 6 below for additional information.
- b. To eliminate interest expense related to SynthRx's recorded liabilities that ADVENTRX did not assume.

5. Pro Forma Net Loss per Share

Shares used to calculate unaudited pro forma combined basic and diluted net loss per share are based on the sum of the following:

- a. The number of ADVENTRX weighted-average shares used in computing historical net loss per share, basic and diluted; and
- b. The number of ADVENTRX weighted-average shares issued to the former stockholders of SynthRx on April 8, 2011, as initial consideration for the acquisition, giving effect to such shares as if they were issued on January 1, 2010.

6. Transaction Costs

For the year ended December 31, 2011, transaction costs incurred related to the acquisition of SynthRx totaled a net reduction of \$58,887. SynthRx incurred transaction costs of \$301,566, which were offset by a reduction to transaction costs of \$360,453 incurred by ADVENTRX. ADVENTRX's transaction costs included \$1,098,852 of legal, accounting, financial and business development advisory fees associated with the SynthRx merger, offset by a \$1,459,305 reduction due to changes since the acquisition date in the fair value of the contingent asset and contingent liability related to the SynthRx acquisition. Transaction costs incurred by ADVENTRX and SynthRx in connection with the acquisition have been excluded from the pro forma statement of operations because such costs are non-recurring costs that are directly attributable to the transaction.

The combined company may incur charges to operations in subsequent periods that ADVENTRX cannot reasonably estimate to reflect costs associated with integrating the two businesses.