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

FORM 8-K/A

(Amendment No. 1)

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	**001-32157**	**84-1318182**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

12390 El Camino Real, Suite 150, San Diego, CA	**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:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

o 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"). The Company is filing this Amendment No. 1 to the Original Current Report as permitted by Item 9.01(a)(4) and (b)(2) of Form 8-K to provide 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. Except as described above, all information in and exhibits to the Original Current Report remain unchanged.

Important Information

In connection with its 2011 annual meeting of stockholders, which is scheduled for June 15, 2011, the Company has filed a definitive proxy statement with the U.S. Securities and Exchange Commission (the "SEC") that includes a proposal requesting stockholder approval for the issuance of shares of the Company's common stock to the former stockholders of SynthRx in lieu of cash payments upon achievement of performance milestones pursuant to the terms of the Company's merger agreement with SynthRx (the "Stockholder Proposal"). INVESTORS AND SECURITY HOLDERS ARE URGED TO READ THE DEFINITIVE PROXY STATEMENT AND OTHER RELEVANT MATERIALS FILED WITH THE SEC CAREFULLY IN THEIR ENTIRETY BECAUSE THEY CONTAIN IMPORTANT INFORMATION ABOUT THE STOCKHOLDER PROPOSAL. The definitive proxy statement, any amendments or supplements to the definitive proxy statement and other relevant documents filed by the Company with the SEC are available free of charge through the website maintained by the SEC at www.sec.gov or by calling the SEC at telephone number 1-800-SEC-0330. Free copies of these documents may also be obtained from the Company's website at www.adventrx.com or by writing to: ADVENTRX Pharmaceuticals, Inc., 12390 El Camino Real, Suite 150, San Diego, California 92130, Attn: Corporate Secretary. The Company and certain of its directors, executive officers and other members of management and employees may, under the rules of the SEC, be deemed to be "participants" in the solicitation of proxies from stockholders of the Company in favor of the Stockholder Proposal. Information regarding the Company's directors and executive officers and other potential participants is included in the definitive proxy statement and the other relevant documents filed with the SEC.

Item 9.01 Financial Statements and Exhibits.

(a) Financial Statements of Businesses Acquired

The following audited financial statements of SynthRx and the report of independent public accountants thereon are attached as Exhibit 99.2 to this report and are incorporated herein by reference:

- 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

(b) Pro Forma Financial Information

The following unaudited pro forma financial information is attached as Exhibit 99.3 to this report and is incorporated herein by reference:

- 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

(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: June 3, 2011	By: /s/ Patrick L. Keran
	Name: Patrick L. Keran
	Title: President and Chief Operating Officer

Exhibit Index

Exhibit No.	Description
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	Consent of J.H. Cohn LLP
99.1(1)	Press Release issued by ADVENTRX Pharmaceuticals, Inc. on April 11, 2011
99.2	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	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

* Certain confidential portions of this exhibit were omitted by means of redacting a portion of the text. Application has been made to the Securities and Exchange Commission seeking confidential treatment of such confidential portions under Rule 24b-2 under the Securities Exchange Act of 1934, as amended. This exhibit has been filed separately with the Securities and Exchange Commission without redactions in connection with registrant's confidential treatment request.

(1) Filed with the registrant's Current Report on Form 8-K on April 11, 2011 (SEC file number 001-32157-11752769)

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

We consent to the incorporation by reference in the registration statements on Form S-8 (No. 333-126551 and No. 333-151903) and the registration statements on Form S-3 (No. 333-117022, No. 333-127857, No. 333-133824, No. 333-159376, No. 333-164177, No. 333-165691 and No. 333-174203) of our report dated March 16, 2011, with respect to our audits of the financial statements of SynthRx, Inc. as of December 31, 2010 and 2009 and for the years then ended and for the period from inception (January 12, 2004) through December 31, 2010, included in Amendment No. 1 to the Current Report on Form 8-K of ADVENTRX Pharmaceuticals, Inc. filed with the Securities and Exchange Commission.

/s/ J.H. Cohn LLP

San Diego, California
June 1, 2011

SYNTHRX, INC.
Report on Financial Statements
(A Development Stage Enterprise)

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Report of Independent Public Accountants

To Board of Directors and Stockholders
SynthRx, Inc.

We have audited the accompanying balance sheets of SynthRx, Inc. (a development stage enterprise) as of December 31, 2010 and 2009, and the related 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. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of SynthRx, Inc. (a development stage enterprise) as of December 31, 2010 and 2009, and its results of operations and cash flows for the years then ended and for the period from inception (January 12, 2004) through December 31, 2010, in conformity with accounting principles generally accepted in the United States of America.

/s/ J.H. Cohn LLP

San Diego, California
March 16, 2011

SYNTHRX, INC.
(A Development Stage Enterprise)

BALANCE SHEETS

	December 31, 2010	December 31, 2009
ASSETS		
Current assets:		
Cash	$ **54,533**	$ 31,663
Certificates of deposit	**12,270**	—
Total current assets	**66,803**	31,663
Equipment, net	**19,257**	—
Long-term investments in certificates of deposit	**—**	12,088
Total assets	$ **86,060**	$ 43,751
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$ **24,587**	$ 2,000
Accrued expenses	**7,050**	2,577
Total current liabilities	**31,637**	4,577
Notes payable — stockholder	**275,000**	75,000
Total liabilities	**306,637**	79,577
Commitments and contingencies		
Stockholders' deficit:		
Common stock, $0.001 par value; 100,000 shares authorized; 1,000 shares issued and outstanding	**1**	1
Additional paid-in capital	**1,045,268**	1,045,268
Deficit accumulated during the development stage	**(1,265,846)**	(1,081,095)
Total stockholders' deficit	**(220,577)**	(35,826)
Total liabilities and stockholders' deficit	$ **86,060**	$ 43,751

See Notes to Financial Statements.

SYNTHRX, INC.
(A Development Stage Enterprise)

STATEMENTS OF OPERATIONS

	Years Ended December 31,		Period from Inception (January 12, 2004) through December 31, 2010
	2010	2009	
Net sales	$ **—**	$ —	$ —
Cost of goods sold	**—**	—	—
Gross margin	**—**	—	—
Operating expenses:			
Research and development	**139,570**	17,100	289,655
General and administrative	**40,890**	8,460	561,927
In-process research and development	**—**	—	409,068
Total operating expenses	**180,460**	25,560	1,260,650
Loss from operations	**(180,460)**	(25,560)	(1,260,650)
Interest income	**182**	324	1,854
Interest expense	**(4,473)**	(2,577)	(7,050)
Loss before income taxes	**(184,751)**	(27,813)	(1,265,846)
Provision for income taxes	**—**	—	—
Net loss	**$ (184,751)**	$ (27,813)	$ (1,265,846)

See Notes to Financial Statements.

SYNTHRX, INC.
(A Development Stage Enterprise)

STATEMENTS OF STOCKHOLDERS' DEFICIT
YEARS ENDED DECEMBER 31, 2010 AND 2009 AND THE PERIOD FROM INCEPTION (JANUARY 12, 2004) THROUGH DECEMBER 31, 2010

	Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
	Shares	Amount			
Balance at January 12, 2004 (date of inception)	—	$ —	$ —	$ —	$ —
Common stock issued (June 8, 2004)	1,000	1	909,068	—	909,069
Stock-based compensation	—	—	136,200	—	136,200
Net loss January 12, 2004 through December 31, 2008				(1,053,282)	(1,053,282)
Balance, December 31, 2008	1,000	1	1,045,268	(1,053,282)	(8,013)
Net loss				(27,813)	(27,813)
Balance, December 31, 2009	1,000	1	1,045,268	(1,081,095)	(35,826)
Net loss				**(184,751)**	**(184,751)**
Balance, December 31, 2010	**1,000**	**$ 1**	**$ 1,045,268**	**$ (1,265,846)**	**$ (220,577)**

See Notes to Financial Statements.

SYNTHRX, INC.
(A Development Stage Enterprise)

STATEMENTS OF CASH FLOWS

	Years Ended December 31, 2010	Years Ended December 31, 2009	Period from Inception (January 12, 2004) through December 31, 2010
Operating activities:			
Net loss	**$ (184,751)**	$ (27,813)	$ (1,265,846)
Write off of in-process research and development	**—**	—	409,068
Stock-based compensation	**—**	—	136,200
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	**1,878**	—	1,878
Increase (decrease) in:			
Accounts payable	**22,587**	(7,699)	24,588
Accrued expenses	**4,473**	2,577	7,050
Net cash used in operating activities	**(155,813)**	(32,935)	(687,062)
Investing activities:			
Investments in certificates of deposit	**(182)**	(324)	(12,270)
Purchase of equipment	**(21,135)**	—	(21,135)
Net cash used in investing activities	**(21,317)**	(324)	(33,405)
Financing activities:			
Capital contribution	**—**	—	500,000
Stockholder loans	**200,000**	50,000	275,000
Net cash provided by financing activities	**200,000**	50,000	775,000
Net increase in cash	**22,870**	16,741	54,533
Cash at beginning of period	**31,663**	14,922	—
Cash at end of period	**$ 54,533**	$ 31,663	$ 54,533

See Notes to Financial Statements.

NOTES TO FINANCIAL STATEMENTS

Note 1 — Business organization and summary of significant accounting policies:

Nature of operations:

SynthRx, Inc., a Delaware corporation ("SynthRx" or the "Company"), is a development-stage enterprise developing a purified form of a rheologic and antithrombotic agent, Poloxamer 188, or P188. During the period from January 12, 2004 (date of inception) through December 31, 2010, the Company has devoted substantially all of its efforts to business planning and research and development. Accordingly, the Company is considered to be in the development stage. The Company is an early stage enterprise and is subject to all of the risks associated with development stage companies.

Management is evaluating various strategic options, including the sale or exclusive license of the Company's product candidate program, a strategic business merger and other similar transactions, certain of which may result in a change of control of the Company. There can be no assurances that the Company will be successful in consummating a strategic transaction on a timely basis or at all.

Use of estimates:

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts and disclosures. Accordingly, actual results may differ from those estimates.

Cash equivalents:

Cash equivalents include all cash balances and highly-liquid investments with a maturity of three months or less when acquired. At December 31, 2010 and 2009, the Company did not have any cash equivalents.

Equipment:

Equipment is stated at cost. Depreciation is calculated using the straight-line method over estimated useful lives of the assets. Repairs and maintenance are expensed as incurred.

Research and development expenses:

Research and development expenses ("R&D") are comprised of costs incurred in performing R&D activities including consulting and development costs. Research and development costs are expensed as incurred.

Note 1 — Business organization and summary of significant accounting policies (continued):

General and administrative expenses:

General and administrative expenses include legal, finance and facilities. In addition, general and administrative expenses include fees for professional services, intellectual property protection and occupancy costs. These costs are expensed as incurred.

Purchased in-process research and development:

The Company entered into a license agreement with CytRx Corporation (“CytRx”) in June 2004 in exchange for 199 shares of the Company’s common stock and a cash payment of $228,164. CytRx granted SynthRx an exclusive license to certain identified CytRx patent rights. The estimated fair value of the license agreement, which had not reached technological feasibility, had no alternative future use, and had uncertainty in generating future economic benefits, was expensed. Accordingly, in 2004, the Company wrote off $409,068 of acquired R&D.

Patent costs:

Legal costs in connection with patent applications are expensed as incurred and classified as general and administrative expenses.

Income taxes:

The Company accounts for income taxes pursuant to the asset and liability method which requires deferred income tax assets and liabilities to be computed for temporary differences between the financial statement and tax bases of assets and liabilities that will result in taxable or deductible amounts in future periods based on enacted laws and rates applicable to the periods in which the temporary differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. The income tax provision is the tax payable or refundable for the period plus or minus the change during the year in deferred tax assets and liabilities.

The Company adopted the new accounting for uncertainty in income taxes guidance on January 1, 2009. The adoption of that guidance did not result on the recognition of any unrecognized tax benefits and the Company has no unrecognized tax benefits at December 31, 2010 and 2009. The Company’s U.S. Federal and state income tax returns prior to fiscal year 2008 are closed. Management continually evaluates expiring statutes of limitations, audit, proposed settlements, changes in tax law and new authoritative rulings.

Note 1 — Business organization and summary of significant accounting policies (concluded):

Subsequent events:

The Company has evaluated events and transactions for potential recognition or disclosures through March 16, 2011, which is the date the financial statements were available to be issued.

Note 2 — Investments:

At December 31, 2010 and 2009, total Federally insured certificates of deposits were $12,270 and $12,088, respectively. Income from certificates of deposit held during the years ended December 31, 2010 and 2009 were $182 and $324, respectively.

Note 3 — Equipment:

Equipment consists of the following at December 31, 2010 and 2009:

	2010	2009
Microscope	**$ 21,135**	$ —
Less accumulated depreciation	**(1,878)**	—
Totals	**$ 19,257**	$ —

Depreciation expense for the years ended December 31, 2010 and 2009 amounted to $1,878 and $0, respectively.

Note 4 — Notes payable — stockholder:

Notes payable — stockholder consists of the following:

	2010	2009
Loan (A)	**$ 25,000**	$ 25,000
Loan (B)	**50,000**	50,000
Loan (C)	**100,000**	—
Loan (D)	**100,000**	—
Totals	**275,000**	75,000
Less current portion	**—**	—
Long-term portion	**$ 275,000**	$ 75,000

Note 4 — Notes payable — stockholder (concluded):

(A) On June 30, 2008, the Company borrowed $25,000 from Dr. Robert Hunter. The note payable is due in full on or before June 30, 2013. Interest at 3.84% is due annually beginning July 1, 2010.

(B) On January 31, 2009, the Company borrowed $50,000 from Dr. Robert Hunter. The note payable is due in full on or before December 2013. Interest at 2.48% is due annually beginning January 1, 2011.

(C) On March 29, 2010, the Company borrowed $100,000 from Dr. Robert Hunter. The note payable is due in full on or before December 31, 2014. Interest at 2.48% is due annually beginning April 1, 2011.

(D) On October 29, 2010, the Company borrowed $100,000 from Dr. Robert Hunter. The note payable is due in full on or before December 31, 2014. Interest at 2.48% is due annually beginning November 1, 2011.

Principal payments on the above obligations in each of the fiscal years subsequent to December 31, 2010 are as follows:

Fiscal Year	Amount
2011	$ —
2012	—
2013	75,000
2014	200,000
Total	$ 275,000

Note 5 — Stockholders' equity:

The Company is authorized to issue 200,000 shares of stock consisting of 100,000 shares of common stock, par value $0.001 per share and 100,000 shares of preferred stock.

On October 20, 2003, Dr. Robert L. Hunter and CytRx entered into an agreement to provide for the formation and operation of SynthRx. In consideration with the agreement, SynthRx issued Dr. Robert Hunter 801 shares of its common stock equal to 80.1% of the total outstanding capital stock of SynthRx and issued CytRx 199 shares of its common stock equal to 19.9% of the total outstanding capital stock of SynthRx.

Note 5 — Stockholders' equity (concluded):

On October 28, 2004, Dr. Robert L. Hunter issued 150 shares of common stock to two individuals for services they had performed for the Company. The fair value of these shares at the time they were issued was $136,200 which was recorded as additional paid-in capital and general and administrative expenses.

Note 6 — Income taxes:

Due to the Company's historical net loss position, and as a full valuation allowance against deferred tax assets has been recorded, there is no provision or benefit for income taxes recorded for the years ended December 31, 2010 and 2009.

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of deferred tax assets and liabilities at December 31, 2010 and 2009 are as follows:

Deferred tax assets:	**2010**	2009
Net operating loss carryforward	**$ 245,848**	$ 179,506
Intangible assets	**73,486**	78,658
Other	**2,522**	876
Total deferred tax assets	**321,856**	259,040
Less: valuation allowance	**(321,856)**	(259,040)
Total deferred tax assets, net of valuation allowance	**$ —**	$ —

The Company has established a full valuation allowance against the deferred tax assets due to the uncertainty surrounding the realization of such assets. The Company has determined it is more likely than not that the deferred tax assets are not realizable due to its historical loss position.

At December 31, 2010, the Company had Federal income tax net operating loss carryforwards of approximately $723,000. The Federal tax loss carryforwards will begin expiring in 2024. Under Section 382 of the Internal Revenue Code of 1986, as amended, substantial changes in the Company's ownership may limit the amount of net operating loss carryforwards that could be utilized annually in the future to offset taxable income. Any such annual limitation may significantly reduce the utilization of the net operating losses before they expire.

Note 7 — License agreement:

On June 8, 2004, the Company entered into a license agreement with CytRx in exchange for 199 shares of the Company's common stock and a non-refundable cash payment of $228,164. The fair value of common stock issued in exchange for these rights and the cash payment, in the amount of $409,069, were charged to research and development expense in the year ended December 31, 2004 (see Note 1).

Upon attainment of certain milestones, which include regulatory approvals and first commercial sales, the Company may be obligated to pay fees of up to $8,000,000.

The Company is obligated to pay a royalty of 5% of sales under the license to FlOCOR Intellectual Property, 5% of sales under the license for Anti-Infectives Intellectual Property and 4% of sales under the license for OptiVax Intellectual Property.

Note 8 — Subsequent events:

In February 2011, the Company entered into an agreement and plan of merger to be acquired by Adventrx Pharmaceuticals, Inc. and Subsidiaries ("Adventrx"). Under the proposed merger, all shares of the Company will be purchased for 2,938,773 shares of Adventrx common stock and potentially an aggregate of 13,478,050 shares if certain milestones are achieved.

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS

The accompanying unaudited pro forma condensed combined financial statements present the pro forma consolidated financial position and results of operations of the combined company 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 are 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 balance sheet reflects the acquisition of SynthRx as if it had been consummated on December 31, 2010 and includes pro forma adjustments for preliminary valuations by ADVENTRX management of certain tangible and intangible assets as of the acquisition date of April 8, 2011. These adjustments are subject to further revision upon finalization of the transaction, the related intangible asset valuations and fair value determinations.

The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2010 combines ADVENTRX's historical results for the year ended December 31, 2010 with SynthRx's historical results for the year ended December 31, 2010. The unaudited pro forma statement of operations gives effect to the acquisition as if it had been consummated on January 1, 2010.

The accompanying unaudited pro forma condensed combined financial statements are presented for illustrative purposes only. They do not purport to represent what ADVENTRX's consolidated results of operations and financial position would have been had the transaction actually occurred as of the dates indicated, and they do not purport to project ADVENTRXs' future consolidated results of operations or financial position.

Pro Forma Adjustments

Pro forma adjustments are necessary to reflect the estimated purchase price and to reflect the amounts related to SynthRx's tangible and intangible assets and liabilities at an amount equal to the preliminary estimate of their fair values. 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 reflecting the completion of the acquisition are based upon the acquisition method of accounting in accordance with Accounting Standards Codification, or ASC, 805 "Business Combinations" and the assumptions set forth in the notes to the unaudited pro forma condensed combined financial statements. The unaudited pro forma condensed combined balance sheet has been adjusted to reflect the preliminary allocation of the estimated purchase price to identifiable assets and liabilities acquired, including an amount for goodwill representing the difference between the purchase price and the fair value of the identifiable assets and liabilities. The estimated purchase price was calculated based upon the number of shares to be issued when a particular performance milestone is achieved, the probability that such milestone will be achieved, the estimated date of achievement of such milestone and the estimated market price of a share of common stock of ADVENTRX on the estimated date of achievement of such milestone. This calculation is highly subjective and it is possible that other professionals, applying reasonable judgment to the same facts and circumstances, could develop and support a range of alternative estimated amounts.

The pro forma adjustments are based upon available information and certain assumptions that ADVENTRX believes are reasonable under the circumstances. A final determination of the fair value of the assets acquired and liabilities assumed may differ materially from the preliminary estimates. This final valuation will be based on the actual fair values of tangible and intangible assets and liabilities assumed of SynthRx that are acquired as of the date of completion of the acquisition. The final valuation may change the purchase price allocation, which could affect the fair value assigned to the assets acquired and liabilities assumed and could result in a change to the unaudited pro forma condensed combined financial statements.

You should read this information in conjunction with:

- the accompanying notes to the unaudited pro forma condensed combined financial statements included in this Exhibit 99.3 to this Current Report on Form 8-K/A (Amendment No. 1);
- the separate historical audited financial statements of SynthRx as of December 31, 2010 and 2009 and for the years then ended and for the period from inception (January 12, 2004) through December 31, 2010 included as Exhibit 99.2 to this Current Report on Form 8-K/A (Amendment No. 1);
- the separate historical audited consolidated financial statements of ADVENTRX as of December 31, 2010 and 2009 and for the years then ended and for the period from inception (June 12, 1996) through December 31, 2010 included in ADVENTRX's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 10, 2011; and
- 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 PHARMACEUTICALS, INC.
(A Development Stage Enterprise)

UNAUDITED PRO FORMA CONDENSED COMBINED BALANCE SHEET
AS OF DECEMBER 31, 2010

	ADVENTRX	SynthRx	Pro Forma Adjustments	Pro Forma Combined
Assets				
Current assets:				
Cash	$ 27,978,823	$ 66,803	$ —	$ 28,045,626
Interest and other receivables	1,980	—	—	1,980
Prepaid expenses	428,276	—	—	428,276
Total current assets	28,409,079	66,803	—	28,475,882
Property and equipment, net	44,254	19,257	—	63,511
Goodwill	—	—	545,247(a)	545,247
Intangible assets, net	—	—	6,340,000(b)	6,340,000
Other assets	33,484	—	300,481(c)	333,965
Total assets	$ 28,486,817	$ 86,060	$ 7,185,728	$ 35,758,605
Liabilities and Stockholders' Equity				
Current liabilities:				
Accounts payable	$ 479,780	$ 24,587	$ 276,979(d,e)	$ 781,346
Accrued liabilities	864,857	7,050	(7,050)(d)	864,857
Accrued compensation and payroll taxes	456,839	—	—	456,839
Total current liabilities	1,801,476	31,637	269,929	2,103,042
Notes payable	—	275,000	(275,000)(d)	—
Contingent consideration	—	—	2,549,103(f)*	2,549,103
Stockholders' equity (deficit):				
Common stock	15,480	1	2,800(g)	18,281
Additional paid-in capital	182,798,982	1,045,268	3,373,050(g)	187,217,300
Deficit accumulated during the development stage	(156,129,121)	(1,265,846)	1,265,846(h)	(156,129,121)
Total stockholders' equity (deficit)	26,685,341	(220,577)	4,641,696	31,106,460
Total liabilities and stockholders' equity	$ 28,486,817	$ 86,060	$ 7,185,728	$ 35,758,605

See accompanying notes to unaudited pro forma condensed combined financial statements.

* The fair value of the contingent consideration for the Second and Third Milestones (collectively $1,464,204) will be reclassified to equity if stockholder approval for the issuance of the Milestone Shares for the Milestone Payments is obtained on or prior to December 31, 2011.

ADVENTRX PHARMACEUTICALS, INC.
(A Development Stage Enterprise)

UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF OPERATIONS
YEAR ENDED DECEMBER 31, 2010

	ADVENTRX	SynthRx	Pro Forma Adjustments	Pro Forma Combined
Grant revenue	$ 488,959	$ —	$ —	$ 488,959
Cost of goods sold	—	—	—	—
Gross margin	488,959	—	—	488,959
Operating expenses:				
Research and development	3,688,762	137,692	—	3,826,454
Selling, general and administrative	5,320,073	40,890	(275,130)(i)	5,085,833
Depreciation and amortization	19,821	1,878	—	21,699
Total operating expenses	9,028,656	180,460	(275,130)	8,933,986
Loss from operations	(8,539,697)	(180,460)	275,130	(8,445,027)
Interest income	92,873	182	—	93,055
Interest expense	(1,629)	(4,473)	4,473(j)	(1,629)
Other expense	(2,469)	—	—	(2,469)
Loss before income taxes	(8,450,922)	(184,751)	279,603	(8,356,070)
Provision for income taxes	—	—	—	—
Net loss	(8,450,922)	(184,751)	279,603	(8,356,070)
Deemed dividends on preferred stock	(5,639,796)	—	—	(5,639,796)
Net loss applicable to common stock	$ (14,090,718)	$ (184,751)	$ 279,603	$(13,995,866)
Loss per common share — basic and diluted	$ (1.07)			$ (0.88)
Weighted average shares outstanding — basic and diluted	13,180,583			15,981,434

See accompanying notes to unaudited pro forma condensed combined financial statements.

ADVENTRX PHARMACEUTICALS, INC.
(A Development Stage Enterprise)

NOTES TO UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS

1. Basis of Presentation

The unaudited pro forma condensed combined financial statements included herein have 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.

The acquisition method of accounting under U.S. GAAP requires, among other things, that most assets acquired and liabilities assumed be recognized at their fair values at the acquisition date. Fair value is defined under U.S. GAAP as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date." Market participants are assumed to be buyers and sellers in the principal (or most advantageous) market for the asset or liability. Fair value measurements for an asset assume the highest and best use by these market participants. Fair value measurements can be highly subjective and it is possible that other professionals, applying reasonable judgment to the same facts and circumstances, could develop and support a range of alternative estimated amounts. Accordingly, the assets acquired and liabilities assumed were recorded at their respective fair values and added to those of ADVENTRX.

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 merger is accounted for under the acquisition method of accounting.

As consideration for the merger, 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) 1,000,000 shares (the "Fully Vested Shares") of ADVENTRX's common stock at the effective time of the merger; provided, however that, pursuant to the Merger Agreement, 137,922 shares were deducted from the number of Fully Vested Shares issued as a result of certain transaction expenses of SynthRx and 200,000 of the Fully Vested Shares 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 at the at the effective time of the merger (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 reduction upon certain events, upon achievement of the First Milestone (defined below);

(iii) up to 1,000,000 shares of ADVENTRX's common stock (the "First Milestone Shares"), issued upon achievement of the First Milestone (the "First Milestone Payment"); 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 Payment 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 ANX-188 for the treatment of sickle cell crisis in children (the "ANX-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 ANX-188 NDA.

(iv) 3,839,400 shares of ADVENTRX's common stock (the "Second Milestone Shares"), issued upon achievement of the Second Milestone (the "Second Milestone Payment"). The "Second Milestone" shall mean the acceptance for review of the ANX-188 NDA by the FDA; and

(v) 8,638,650 shares of ADVENTRX's common stock (the "Third Milestone Shares," and together with the First Milestone Shares and the Second Milestone Shares, the "Milestone Shares"), issued upon achievement of the Third Milestone (the "Third Milestone Payment," and together with the First Milestone Payment and the Second Milestone Payment, the "Milestone Payments"). The "Third Milestone" shall mean the approval by the FDA of the ANX-188 NDA.

Notwithstanding the foregoing, in the event that the issuance of the Milestone Shares (x) violates federal or state securities laws or the listing standards of any national securities exchange to which ADVENTRX is subject at the time of such issuance, or (y) ADVENTRX is unable to obtain the affirmative vote of the holders of a majority of its common stock approving the issuance of the Milestone Shares on or before December 31, 2011, ADVENTRX is required to make the applicable Milestone Payments, or portion thereof, in cash based on the product of (x) the number of shares of ADVENTRX's common stock issuable upon achievement of an applicable milestone and (y) the daily volume weighted average of actual closing prices measured in hundredths of cents of ADVENTRX's common stock on the NYSE Amex, or such other national securities exchange on which its common stock is then listed, for the ten consecutive trading days immediately prior to the applicable Milestone Payment. Any Milestone Payment made in cash will be payable in quarterly installments. If the First Milestone Payment must be made in cash, such amount will be payable at a rate of $1,000,000 per calendar quarter and, if the Second Milestone Payment or the Third Milestone Payment must be made in cash, such amounts will be payable at a rate of 35% of net sales for the applicable calendar quarter of intravenous injection products in which a purified form of poloxamer 188 is an active ingredient. In connection with its 2011 Annual Meeting of Stockholders, which is scheduled for June 15, 2011 ("the 2011 Annual Meeting"), ADVENTRX filed a definitive proxy statement that includes a proposal requesting that stockholders approve the issuance of the Milestone Shares in satisfaction of the Milestone Payments.

The Subject to Vesting Shares and Milestone Payments constitute contingent consideration. In order to determine the appropriate classification of the contingent consideration as a liability or equity, ADVENTRX reviewed ASC 480 "Distinguishing Liabilities from Equity and ASC 815-40 "Derivatives and Hedging — Contracts in Entity's Own Equity". ASC 480 requires that contingent consideration that is required to be settled in cash be classified as a liability. Contingent consideration that can be settled in shares may be classified as a liability or equity. ASC 815-40 requires that any contingent consideration arrangements including potential net cash settlements or variable provisions be classified as a liability. Classification as a liability requires fair value measurement initially and subsequently at each reporting date. Changes in the fair value of contingent consideration are recognized in earnings until the contingent consideration arrangement is settled. Classification as equity requires fair value measurement initially and there are no subsequent re-measurements. Settlement of the equity-classified contingent consideration is accounted for within equity.

The Subject to Vesting Shares were issued on April 8, 2011. Accordingly, the fair value of the contingent consideration related to the Subject to Vesting shares has been classified as equity. However, the Subject to Vesting shares are subject to various repurchase rights by ADVENTRX. The fair value related to the number of such shares that may be repurchased has been accounted for as a contingent asset. The fair value of the contingent asset will be remeasured at each reporting date until the arrangement is settled.

ADVENTRX is requesting stockholder approval for the issuance of the Milestone Shares for the Milestone Payments at the 2011 Annual Meeting. Until stockholder approval is obtained, ADVENTRX has classified the contingent consideration for the Milestone Payments as a liability. If stockholder approval is obtained, the fair values of the contingent consideration on the Second and Third Milestone will be reclassified to equity as there will no longer be any net cash settlement or variable provisions. The amount of the contingent consideration for the First Milestone will remain classified as a liability as there is a variable component related to the timing of and the number of patients enrolled in the phase 3 clinical study of ANX-188 and the number of shares ultimately to be issued. The fair value of the contingent consideration for the First Milestone will be remeasured at each reporting date until the arrangement is settled.

Based on the fair value of the shares issued to the former stockholders of SynthRx upon consummation of the merger and issuable to them in the future as the Milestone Payments (which is based upon the number of shares to be issued at the time of achievement of each milestone, the probability that such milestone will be achieved, the estimated date of achievement for each milestone and the estimated market price of a share of common stock of ADVENTRX on the estimated date of achievement of such milestone), the preliminary aggregate purchase price was approximately $6.7 million.

The pro forma condensed combined balance sheet has been adjusted to reflect the preliminary allocation by ADVENTRX management of the SynthRx purchase price to identifiable tangible and intangible assets and liabilities acquired and the excess purchase price to goodwill. The preliminary purchase price allocation is based upon an estimated total purchase price of approximately $6.7 million.

The preliminary estimated total purchase price of the acquisition is as follows:

Milestone	Shares Issued / To Be Issued	Probability Weighted Fair Value
Initial consideration (fully vested)	862,078	$ 2,017,263
Initial consideration that vests upon achievement of First Milestone	1,938,773	2,103,375
First Milestone — phase 3 clinical study first dosing	1,000,000	1,084,900
Second Milestone — NDA acceptance	3,839,400	733,403
Third Milestone — FDA approval	8,638,650	730,801
Total	16,278,901	$ 6,669,742

Under the acquisition method of accounting, the total estimated purchase price is allocated to SynthRx's tangible and intangible assets and liabilities based on their estimated fair values at the date of the completion of the acquisition (April 8, 2011). The following table summarizes the preliminary allocation of the purchase price for SynthRx:

Assets acquired	$ 18,513
Liabilities assumed	(301,566)
Acquired intangibles:	
In-process research and development	6,340,000
Goodwill	612,795
Total preliminary estimated purchase price	$ 6,669,742

3. Pro Forma Condensed Financial Statements

The accompanying unaudited pro forma condensed combined financial statements present the pro forma consolidated financial position and 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 balance sheet reflects the acquisition of SynthRx as if it has been consummated on December 31, 2010 and includes pro forma adjustments for preliminary valuations by ADVENTRX management of certain tangible and intangible assets as of the acquisition date of April 8, 2011. These adjustments are subject to further revision upon finalization of the fair value determinations.

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

The accompanying unaudited pro forma condensed combined financial statements are presented for illustrative purposes only.

4. Pro Forma Adjustments

Pro forma adjustments are necessary to reflect the estimated purchase price and to reflect amounts related to SynthRx's net tangible and intangible assets and liabilities at an amount equal to the preliminary estimate of their fair values. The only intangible asset identified was in-process research and development valued at $6.3 million. Under the guidance of ASC 805, the fair value of in-process research and development is capitalized on the balance sheet until the project is either abandoned and written off or successfully commercialized, at which time the Company begins amortizing the fair value over the estimated useful life.

There were no significant intercompany balances and transactions between ADVENTRX and SynthRx at the dates and for the period of these pro forma condensed combined financial statements.

The unaudited pro forma condensed combined financial statements do not include any adjustments for liabilities that will result from integration activities related to the SynthRx acquisition. Additional assets or liabilities may be recorded that could affect amounts in the unaudited pro forma condensed combined financial statements. During the measurement period, any such adjustments to provisional amounts would increase or decrease goodwill. Adjustments that occur after the end of the measurement period will be recognized in the post-combination current period operations.

The pro forma adjustments included in the unaudited pro forma condensed combined financial statements are as follows:

a. To record goodwill related to the SynthRx acquisition. A value of $0.6 million, representing the difference between the total purchase price and the aggregate fair values assigned to the tangible and intangible assets acquired, less liabilities assumed, was assigned to goodwill. ADVENTRX acquired SynthRx to expand its product pipeline, enter into new therapeutic areas and address unmet market needs. These are among the factors that contributed to a purchase price for the SynthRx acquisition that resulted in the recognition of goodwill.

b. To record the preliminary fair value of SynthRx's in-process research and development for the novel, rheologic and antithrombotic compound that ADVENTRX is developing as "ANX-188."

c. To record the fair value of a contingent asset for the number of shares that may be repurchased pursuant to ADVENTRX's repurchase rights related to the Subject to Vesting Shares.

d. To eliminate SynthRx's recorded liabilities as of December 31, 2010 because ADVENTRX did not assume those liabilities.

e. To record liabilities for acquisition-related legal and accounting fees incurred by SynthRx which ADVENTRX is obligated to pay.

f. To record the fair value of contingent consideration for the First, Second and Third Milestone in the SynthRx acquisition. The fair value for the Second Milestone and Third Milestone will be reclassified to equity if stockholder approval for the issuance of the Milestone Shares for the Milestone Payments is obtained on or prior to December 31, 2011.

g. To eliminate SynthRx's historical stockholders' equity accounts and to record the fair value of ADVENTRX common stock and related contingent consideration exchanged as initial consideration in the SynthRx acquisition.

h. To eliminate SynthRx's historical accumulated deficit.

i. To reduce general and administrative expenses for transaction costs incurred in connection with the SynthRx acquisition.

j. To eliminate interest expense related to 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 common shares issued to the former stockholders of SynthRx on April 8, 2011, as initial consideration for the acquisition.

6. Transaction Costs

For the year ended December 31, 2010, transaction costs incurred related to the acquisition of SynthRx totaled $275,130, all of which was incurred by ADVENTRX. These costs have been recorded as a pro forma adjustment to reduce general and administrative expenses in the statement of operations for the year ended December 31, 2010. The combined company expects to incur approximately $1.6 million in direct transaction costs in connection with the acquisition. The $1.3 million remaining will be incurred and expensed in the first and second quarters of 2011.

The combined company may incur charges to operations that ADVENTRX cannot reasonably estimate, in the quarter in which the acquisition is completed or the following quarters, to reflect costs associated with integrating the two businesses. In addition, the combined company may incur additional charges relating to the transaction in subsequent periods, which could have a material impact on the combined company's financial position or results of operations.