UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No. 1)*

ADVENTRX Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock, \$0.001 par value per share (Title of Class of Securities)

> 00764X103 (CUSIP Number)

December 31, 2011 (Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- a. 🗆 Rule 13d-1(b)
- b. 🛛 Rule 13d-1(c)
- c. 🗆 Rule 13d-1(d)
- * The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 00764X103

| CUSIP NO. 00/04X105 | | | | | | |
|--|---|-----------|--|--|--|--|
| (1) | (1) Names of reporting persons. | | | | | |
| | I.R.S. Identification Nos. of above persons (entities only) | | | | | |
| | | | | | | |
| | Cranshire Capital Advisors, LLC | | | | | |
| (2) | (2) Check the appropriate box if a member of a group (see instructions) | | | | | |
| | | | | | | |
| | | | | | | |
| (2) | | | | | | |
| (3) | SEC use | only | | | | |
| (A) Citizenskie zwalze of engeniestien | | | | | | |
| (4) | (4) Citizenship or place of organization | | | | | |
| Delaware | | | | | | |
| | | (5) | Sole voting power | | | |
| | | (-) | | | | |
| Number of | | | 0 | | | |
| s | hares | (6) | Shared voting power | | | |
| beneficially | | | | | | |
| ow | ned by | | 2,408,734 | | | |
| each | | (7) | Sole dispositive power | | | |
| reporting | | | | | | |
| person | | | 0 | | | |
| with: | | (8) | Shared dispositive power | | | |
| | | | | | | |
| | | 2,408,734 | | | | |
| (9) | Aggregate amount beneficially owned by each reporting person | | | | | |
| | 2.409.724 (see Item 4) | | | | | |
| (10) | 2,408,734 (see Item 4) 0) Check if the aggregate amount in Row (9) excludes certain shares (see instructions) | | | | | |
| (10) | CHECK II | ulea | aggregate amount in Row (9) excludes certain shares (see instructions) | | | |
| (11) | Percent | of cla | iss represented by amount in Row (9) | | | |
| ` ` | | | | | | |
| | 4.9% (see Item 4) | | | | | |
| (12) | P) Type of reporting person (see instructions) | | | | | |
| | | | | | | |
| | 00 | | | | | |

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CUSIP No. 00764X103

| CUSIP No. 00764X103 | | | | | | |
|--|---|-------|--|--|--|--|
| (1) | (1) Names of reporting persons. | | | | | |
| | I.R.S. Identification Nos. of above persons (entities only) | | | | | |
| | Mitchell | opin | | | | |
| (2) | | | | | | |
| | (a) 🗆 | | | | | |
| | | | | | | |
| (3) | (3) SEC use only | | | | | |
| (4) Citizenship or place of organization | | | r place of organization | | | |
| | United States of America | | | | | |
| | | (5) | Sole voting power | | | |
| Nu | mber of | | 0 | | | |
| | hares | (6) | Shared voting power | | | |
| | eficially med by | | 2,408,734 | | | |
| | each | (7) | Sole dispositive power | | | |
| - | porting | | | | | |
| - | erson with: | (8) | 0 Shared dispositive power | | | |
| | | (0) | | | | |
| | | | 2,408,734 | | | |
| (9) | (9) Aggregate amount beneficially owned by each reporting person | | | | | |
| | 2,408,734 (see Item 4) | | | | | |
| (10) | Check if | the a | aggregate amount in Row (9) excludes certain shares (see instructions) | | | |
| (11) | Percent of class represented by amount in Row (9) | | | | | |
| | 4.9% (see Item 4) | | | | | |
| (12) | | | | | | |
| | | | | | | |
| | IN; HC | | | | | |

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This Amendment No. 1 is being filed jointly by the Reporting Persons and amends the Schedule 13G initially filed by the Reporting Persons with the Securities and Exchange Commission (the "SEC") on November 21, 2011 (the "Schedule 13G").

Except as set forth below, all Items of the Schedule 13G remain unchanged. All capitalized terms not otherwise defined herein shall have the meanings ascribed to such terms in the Schedule 13G.

Item 2.

- (a) Name of Person Filing
- (b) Address of Principal Business Office or, if none, Residence
- (c) Citizenship

CCA serves as the investment manager to each of (i) Cranshire Capital, (ii) Cranshire Capital Master Fund, (iii) a managed account (the "<u>Managed Account 1</u>") and (iv) a second managed account ("<u>Managed Account 2</u>"). In such capacity, CCA exercises voting and investment power over the shares of Common Stock held for the account of each of Cranshire Capital, Cranshire Capital Master Fund, Managed Account 1 and Managed Account 2.

Item 4. Ownership.

(a) and (b):

As of the close of business on December 31, 2011, each of the Reporting Persons may be deemed to have beneficial ownership of 2,408,734 shares of Common Stock, which consists of (i) 914,100 shares of Common Stock held for the account of Cranshire Capital Master Fund, (ii) 52,500 shares of Common Stock held for the account of Managed Account 2, (iii) 840,150 shares of Common Stock issuable upon exercise of the Master Fund Warrant, (iv) 62,500 shares of Common Stock issuable upon exercise of a warrant held by Managed Account 2 (the "Managed Account 2 Warrant"), (v) 81,819 shares of Common Stock issuable upon exercise of the First Cranshire Warrant, (vi) 81,819 shares of Common Stock issuable upon exercise of the Second Cranshire Warrant, (vii) 9,091 shares of Common Stock issuable upon exercise of the Second Managed Account Warrant, (viii) 9,091 shares of Common Stock issuable upon exercise of the Third Managed Account Warrant, (ix) 166,164 shares of Common Stock issuable upon exercise of the Fourth Cranshire Warrant, (x) 22,707 shares of Common Stock issuable upon exercise the Fourth Managed Account Warrant, and (xi) 168,793 of Common Stock issuable upon exercise the Third Cranshire Warrant, and all such shares of Common Stock represent beneficial ownership of approximately 4.9% of the Common Stock, based on (1) 47,715,709 shares of Common Stock issued and outstanding immediately following the consummation of the Public Offering, as disclosed in the Form 424B5 Prospectus filed by the Issuer on November 10, 2011, plus (2) 840,150 shares of Common Stock issuable upon exercise of the Master Fund Warrant, (3) 62,500 shares of Common Stock issuable upon exercise of the Managed Account 2 Warrant, (4) 81,819 shares of Common Stock issuable upon exercise of the First Cranshire Warrant, (5) 81,819 shares of Common Stock issuable upon exercise of the Second Cranshire Warrant, (6) 9,091 shares of Common Stock issuable upon exercise of the Second Managed Account Warrant, (7) 9,091 shares of Common Stock issuable upon exercise of the Third Managed Account Warrant, (8) 166,164 shares of Common Stock issuable upon exercise of the Fourth Cranshire Warrant, (9) 22,707 shares of Common Stock issuable upon exercise the Fourth Managed Account Warrant, and (10) 168,793 of Common Stock issuable upon exercise the Third Cranshire Warrant.

The foregoing excludes 262,652 shares of Common Stock issuable upon exercise of the Third Cranshire Warrant because the Third Cranshire Warrant contains a blocker provision under which the holder thereof does not have the right to exercise the Third Cranshire Warrant to the extent that such exercise would result in beneficial ownership by the holder thereof (together with the holder's affiliates, and any other persons acting as a group together with the holder or any of the holder's affiliates) of more than 4.9% of the Common Stock. Without such blocker provisions, each of the Reporting Persons may be deemed to have beneficial ownership of 2,671,386 shares of Common Stock.

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(c) Number of shares as to which each Reporting Person has:

- (i) Sole power to vote or to direct the vote: 0.
- (ii) Shared power to vote or to direct the vote: 2,408,734.
- (iii) Sole power to dispose or to direct the disposition of 0.
- (iv) Shared power to dispose or to direct the disposition of 2,408,734.

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than 5 percent of the class of securities, check the following 🗹.

Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

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SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: February 13, 2012

CRANSHIRE CAPITAL ADVISORS, LLC

By: /s/ Mitchell P. Kopin Mitchell P. Kopin, Managing Member

/s/ Mitchell P. Kopin

Mitchell P. Kopin

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