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

FORM 8-K

CURRENT REPORT PURSUANT
TO SECTION 13 OR 15 (d) OF THE
SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported) April 7, 2006

ADVENTRX Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation)

001-32157	**84-1318182**
(Commission File Number)	(IRS Employer Identification No.)

6725 Mesa Ridge Road, Suite 100
San Diego, California 92121
(Address of principal executive offices) (Zip Code)

(858) 552-0866
(Company's telephone number, including area code)

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))

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Item 1.01 — Entry into a Material Definitive Agreement

On April 7, 2006, ADVENTRX Pharmaceuticals, Inc. (the "Company", "we" or "us") entered into an Agreement and Plan of Merger (the "Merger Agreement") among the Company, SD Pharmaceuticals, Inc., a Delaware corporation ("SDP"), Speed Acquisition, Inc., a Delaware corporation and a wholly-owned subsidiary of the Company ("Merger Sub"), Paul Marangos and Andrew X. Chen, each as stockholders of SDP and Paul Marangos, as an individual acting as the stockholder representative. Pursuant to the Merger Agreement, we will acquire SDP through the merger of Merger Sub into SDP and SDP will continue as the surviving corporation and as a wholly-owned subsidiary of the Company (the "Merger").

Under the Merger Agreement, in consideration of and subject to the closing of the Merger, we would issue an aggregate of 2,100,000 shares of our common stock (the "Merger Consideration Shares") to the stockholders of SDP. The issuances of the Merger Consideration Shares would not be registered under the Securities Act of 1933 (the "Securities Act") in reliance upon Section 4(2) of such Act. The Merger Agreement and the other transaction documents also contain customary representations, warranties and additional covenants by the parties.

The closing of the Merger is subject to a number of conditions which we currently expect to satisfy by April 28, 2006, including the listing of the Merger Consideration Shares with the American Stock Exchange. If the closing of the Merger has not occurred by April 28, 2006, for reasons other than a breach by SDP of its obligations under the Merger Agreement, we would be obligated to make a $100,000 cash payment to SDP.

Within 35 days following the Merger, we would be required to file with the Securities and Exchange Commission a registration statement on Form S-3 (the "Registration Statement") covering the resale of the Merger Consideration Shares. If the Registration Statement has not become effective under the Securities Act by June 12, 2006, we would be obligated to make an aggregate cash payment of $100,000 to the stockholders of SDP on a pro rata basis.

Item 3.02 — Unregistered Sales of Equity Securities

Merger Consideration Shares

See Item 1.01 above with respect to the issuance of Merger Consideration Shares.

Shares Issued Upon Exercise of Warrants

From March 24, 2006 through April 10, 2006, we issued 461,998 shares of common stock to 7 of our warrant holders in connection with their exercise of outstanding warrants. We received gross proceeds of $737,821.05 upon exercise of these warrants. The issuances of shares of common stock upon exercise of these warrants were not registered under the Securities Act of 1933 in reliance upon Section 4(2) of such Act.

Pursuant to the terms of an agreement we entered into with Burnham Hill Partners, a division of Pali Capital, Inc., in March 2004, we are obligated to pay a 4% cash commission on each cash exercise of warrants issued in a financing that we consummated in April 2004. In accordance with this obligation, we owe Burnham Hill Partners approximately $15,799 in connection with the exercises of warrants from March 24, 2006 through April 10, 2006. No other commission or other remuneration was paid or given directly or indirectly in connection with these warrant exercises.

Item 8.01 — Other Events

The press release issued by the Company on April 10, 2006 with respect to the matter described in Item 1.01 of this current report is included with this report as an exhibit.

Item 9.01 —Financial Statements and Exhibits

(99) (d) The exhibit list required by this item is incorporated by reference to the Exhibit Index filed as part of this report.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ADVENTRX Pharmaceuticals, Inc.

By: /s/ Carrie E. Carlander
Name: Carrie E. Carlander
Title: Chief Financial Officer, Senior Vice President Finance, Secretary and Treasurer

April 11, 2006

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EXHIBIT INDEX

Exhibit	Description
99.1	Press Release of the Company dated April 10, 2006

Exhibit 99.1

ADVENTRX SIGNS DEFINITIVE MERGER AGREEMENT WITH SD PHARMACEUTICALS

SAN DIEGO – April 10, 2006 – ADVENTRX Pharmaceuticals, Inc. (Amex: ANX) and SD Pharmaceuticals, Inc. (SD Pharma), a privately-held company, announced today that the companies have signed a definitive merger agreement whereby ADVENTRX will acquire all of the outstanding shares of SD Pharma.

Under the terms of the agreement, ADVENTRX will issue, and SD Pharma stockholders will receive, approximately 2,100,000 shares of ADVENTRX common stock. The agreement and plan of merger has been approved by the boards of directors of both companies and by the stockholders of SD Pharma. The closing of the merger is subject to the fulfillment of a number of conditions which the parties currently expect will be satisfied. SD Pharma co-founder, Andrew Chen, Ph.D., R.Ph, will continue to collaborate with ADVENTRX as a consultant. No other organizational changes for ADVENTRX will result from the merger agreement.

Subject to the closing of the transaction, ADVENTRX will acquire worldwide intellectual property rights to eight oncology and infectious disease product candidates, including ex-US rights to SDP-012 (ANX-530, vinorelbine emulsion). In October 2005, ADVENTRX announced it had licensed US development and marketing rights to SDP-012 (ANX-530) from SD Pharma.

Certain product candidates that ADVENTRX would acquire as a result of the merger are based on a nano-emulsion technology for both soluble and insoluble parenteral drugs. The nano-emulsion technology was developed by Dr. Andrew Chen and is designed to enable the delivery of vein irritating or difficult to dissolve drugs without excipient-induced adverse effects. Many of the product candidates are based on currently approved drugs and may qualify for the 505(b)(2) regulatory process.

Section 505(b)(2) of the US Food, Drug & Cosmetic Act allows the FDA to approve a follow-on drug on the basis of data in the scientific literature or data used by the FDA in the approval of other drugs. This procedure potentially makes it easier for drug manufacturers to obtain rapid approval of new forms of drugs based on proprietary data of the original drug manufacturer.

“We believe that this transaction will provide tremendous value for our stockholders by strengthening our product pipeline with near-term product candidates in oncology and infectious disease,” said Evan M. Levine, ADVENTRX president and CEO. “We plan to build on our 505(b)(2) regulatory experience and our familiarity with Dr. Chen’s nano-emulsion technologies and to apply these skills to compounds with even larger market opportunities. The integration of these near-term product candidates can create numerous growth opportunities while allowing us to remain focused on our core competencies.”

“ADVENTRX has several exciting drug development opportunities for cancer and infectious disease and a proven track record of bringing drugs through preclinical and clinical development,” commented Paul J. Marangos, Ph.D., SD Pharma chairman, CEO and co-founder. “We believe ADVENTRX is the right company to further develop these product candidates based on their rapid progress with ANX-530 which they licensed from us last year. The SD Pharma portfolio includes sizeable near-term market opportunities with potentially lower development costs associated with 505(b)(2) regulatory paths. In addition, it nicely augments the existing ADVENTRX oncology and infectious disease pipelines. Development of these compounds will certainly benefit from ADVENTRX’s clinical experience, especially within the field of oncology.”

The SD Pharma product portfolio consists of five anticancer and three anti-infective therapies which are listed below:

- SDP-013 – A non-allergenic, non cremophor-containing emulsion formulation of paclitaxel (Taxolâ) designed to eliminate the need for immunosuppressant premedication, which is recommended for paclitaxel therapy to reduce the incidence and severity of severe hypersensitivity reaction. Paclitaxel is approved to treat breast, ovarian and non-small cell lung cancers. Taxol worldwide sales were approximately $750 million in 2005. (Source: Bristol-Myers Squibb).

- SDP-014 – A novel docetaxel (Taxotereâ) formulation not containing polysorbate 80 or other detergents, intended to eliminate the need for multiday immunosuppressant premedication, which is recommended for docetaxel therapy to reduce the incidence and severity of allergic reaction. Taxotere is approved to treat breast, non-small cell lung, prostate and gastric cancers. Worldwide Taxotere sales were approximately $1.6 billion in 2005. (Source: Sanofi-Aventis)
- SDP-012 (vinorelbine emulsion) – A novel emulsion formulation of vinorelbine tartrate designed to reduce vein irritation associated with the drug. Vinorelbine is approved to treat non-small cell lung cancer. According to IMS Health, worldwide sales of vinorelbine in 2005 were over $150 million.
- SDP-111 – A novel formulation of beta-elemene, a small molecule anticancer agent belonging to the triterpene family and currently approved in China for a variety of cancers.
- SDP-112 – An emulsion formulation of alpha-tocopheryl succinate, a form of vitamin E which has been shown to selectively facilitate apoptosis, or cell death, in cancer cells.
- SDP-015 – A proprietary intravenous formulation of an approved antibiotic in the macrolide family known as clarithromycin. Clarithromycin is approved for mild to moderate bacterial infections such as in community-acquired pneumonia. Only oral formulations of clarithromycin are currently available in the US.
- SDP-011 – A broad spectrum intranasal/topical anti-viral gel intended for use in cold and flu and other viral indications as an over-the-counter (OTC) product.
- SDP-016 – A novel formulation of vancomycin, a parenteral glycopeptide antibiotic approved to treat gram-positive bacterial infections. SDP-016 is designed to reduce the vein irritation and phlebitis associated with the IV-delivered drug.

Certain product candidates to be obtained in the transaction are being evaluated by ADVENTRX as possible out-licensing opportunities.

About ADVENTRX
ADVENTRX Pharmaceuticals is a biopharmaceutical research and development company focused on introducing new technologies for anticancer and antiviral treatments that surpass the performance and safety of existing drugs, by addressing significant problems such as drug metabolism, toxicity, bioavailability and resistance. More information can be found on the Company's Web site at www.adventrx.com.

About SD Pharma
More information on SD Pharma can be found on the Company's Web site at www.sdpharma.com.

Forward Looking Statement
This press release contains forward-looking statements, within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, regarding ADVENTRX. Such statements are made based on management's current expectations and beliefs. Actual results may vary from those currently anticipated based upon a number of factors, including uncertainties inherent in the drug development process, the timing and success of clinical trials, the validity of research results, and the receipt of necessary approvals from the FDA and other regulatory agencies. For a discussion of such risks and uncertainties, which could cause actual results to differ from those contained in the forward-looking statements regarding ADVENTRX, see the section titled "Risk Factors" in ADVENTRX's last annual report on Form 10-K, as well as other reports that ADVENTRX files from time to time with the Securities and Exchange Commission. All forward-looking statements regarding ADVENTRX are qualified in their entirety by this cautionary statement. ADVENTRX undertakes no obligation to release publicly any revisions, which may be made to reflect events or circumstances after the date hereof.

Contact:

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