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 11, 2005

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.)

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)

Item 8.01. Other Events.

On April 11, 2005, the Company announced that CoFactor Phase II and preclinical toxicity data will be presented at the American Association for Cancer Research Annual Meeting, April 16-20 in Anaheim, CA.

The press release issued by the Company on April 11, 2005 with respect to these matters is included with this report as an exhibit.

Item 9.01. Financial Statements and Exhibits.

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

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, Vice President, Finance, and Treasurer

April 11, 2005

EXHIBIT INDEX

Exhibit Description

99.1 Press Release of the Company dated April 11, 2005.

ADVENTRX'S COFACTOR PHASE II AND PRECLINICAL TOXICITY DATA TO BE PRESENTED AT AACR ANNUAL MEETING

SAN DIEGO - April 11, 2005 - ADVENTRX Pharmaceuticals, Inc. (Amex: ANX) today announced that two abstracts featuring CoFactor™ toxicity and pharmacodynamics data will be presented at the American Association for Cancer Research (AACR) Annual Meeting, April 16-20 in Anaheim, Calif. These data were collected from the Company's ongoing CoFactor Phase II clinical trial in metastatic colorectal cancer and a recent preclinical study that compared toxicity and anti-tumor activity of CoFactor used in combination with 5-fluorouracil (5-FU) and a variety of other therapeutic agents, including an antibody directed against vascular endothelial growth factor (anti-VEGF). CoFactor is a biomodulator designed to enhance the activity of the widely used cancer drug 5-FU.

"We are pleased to be reporting toxicity data less than one year after dosing the first patient in our current Phase II study of CoFactor, and we intend to announce preliminary efficacy data from this trial in May," said Evan M. Levine, ADVENTRX president and CEO. "Further, we believe these data will support our recent filings with both the US Food and Drug Administration (FDA) and the European Medicines Agency (EMEA) for clearance to initiate late stage trials with CoFactor in colorectal cancer. We believe that we have made substantial progress in the clinical trial process, and we remain confident in our ability to advance CoFactor through the regulatory process."

C. Paul Spears, M.D., co-inventor of CoFactor, investigator in the COFU trial and lead author on the clinical abstract, will present a poster entitled "Pharmacodynamics of weekly intravenous methylenetetrahydrofolate/5-fluorouracil on formic acid, RBC folate, and homocysteine levels in patients with metastatic colon cancer" (abstract 3988) on Tuesday, April 19 at 8:00 a.m. PT. This will be the first presentation of clinical data related to metabolism and toxicity with CoFactor in metastatic colorectal cancer patients from the Company's current Phase II study.

Mark J. Cantwell, Ph.D., lead author of the recent preclinical study will present a poster entitled "5,10-methylenetetrahydrofolate/5-fluorouracil combination therapy shows enhanced antitumor activity and lower systemic toxicity with a broad range of cytotoxic drugs" (abstract 5107) on Tuesday, April 19, at 1:00 p.m. PT.

These abstracts will be available via the Company's Web site at www.adventrx.com following Dr. Cantwell's presentation.

About CoFactor

CoFactor is a folate-based biomodulator drug developed to enhance the activity of the widely used cancer chemotherapeutic, 5-FU. Clinical data from previous clinical trials in Europe has demonstrated clinical benefit and improved overall median survival in patients with advanced tumors, including colorectal, pancreatic and breast. CoFactor blocks cancer cell growth by creating more stable binding, compared to leucovorin, of the target enzyme, thymidylate synthase (TS). CoFactor bypasses the chemical pathway required by leucovorin to deliver the active form of folate to allow 5-FU to work more effectively. This improves 5-FU performance and lowers toxicity. ADVENTRX is the exclusive licensee of this compound. More information on CoFactor can be found at http://www.adventrx.com/products/antic_cofactor.htm.

About ADVENTRX

ADVENTRX Pharmaceuticals is a biopharmaceutical research and development company focused on introducing new technologies for anticancer and antiviral treatments that improve the performance of existing drugs and address significant problems such as drug metabolism, bioavailability and resistance. More information can be found on the Company's Web site at www.adventrx.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. 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, see "Risk Factors" in the Company's last quarterly report on Form 10-QSB, as well as other reports that the Company files from time to time with the Securities and Exchange Commission. All forward-looking statements are qualified in their entirety by this cautionary statement. The Company undertakes no obligation to release publicly any revisions, which may be made to reflect events or circumstances after the date hereof.

Contact:
ADVENTRX Pharmaceuticals

Andrea Lynn 858-552-0866

Investor Contact: **Lippert Heilshorn & Associates** Jody Cain (<u>jcain@lhai.com</u>) Brandi Floberg (<u>bfloberg@lhai.com</u>) 310-691-7100