

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 25, 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 25, 2005, the Company announced that it received FDA clearance for its CoFactor Phase III pivotal trial in metastatic colorectal cancer.

The press release issued by the Company on April 25, 2005 with respect to this matter is included with this report as an exhibit.

Item 9.01. Financial Statements and Exhibits.

(99) ©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 25, 2005

EXHIBIT INDEX

Exhibit Description

99.1 Press Release of the Company dated April 25, 2005.

**ADVENTRX RECEIVES FDA CLEARANCE FOR COFACTOR PHASE III
PIVOTAL TRIAL IN METASTATIC COLORECTAL CANCER**

SAN DIEGO - April 25, 2005 - ADVENTRX Pharmaceuticals, Inc. (Amex: ANX) today announced that it has received clearance from the US Food and Drug Administration (FDA) under a Special Protocol Assessment (SPA) to initiate a Phase III pivotal clinical trial with CoFactor for the treatment of metastatic colorectal cancer. CoFactor is the Company's biomodulator designed to enhance the activity of the widely used cancer drug 5-fluorouracil (5-FU).

The US Phase III pivotal clinical trial will be a randomized, open label multi-center, parallel group, study of CoFactor as a first-line, combination therapy in patients with metastatic colorectal carcinoma. The two-arm study is expected to include approximately 600 patients, half of whom will be treated with CoFactor, 5-FU and bevacizumab (Avastin'), compared with the other half of the patient population who will be treated with leucovorin, 5-FU and bevacizumab (Avastin'). The primary end-point for this study is progression free survival (PFS), defined as the time from start of treatment to time of disease progression or death.

ADVENTRX recently received clearance in the UK to begin an international Phase IIb trial with CoFactor in metastatic colorectal cancer and plans to file in the first half of this year for clearance to initiate a EU-based Phase III CoFactor study in pancreatic cancer. Results from the Company's ongoing Phase II clinical trial using CoFactor and 5-FU for metastatic colorectal cancer are expected to be announced in Q2 2005.

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 have demonstrated clinical benefit and improved overall median survival in patients with advanced tumors, including colorectal, pancreatic and breast. In comparison to leucovorin, CoFactor creates more stable binding of the active form of 5-FU, FdUMP, to the target enzyme, thymidylate synthase (TS). CoFactor bypasses the chemical pathway required by leucovorin to deliver the active form of folate, allowing 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 annual report on Form 10-KSB, 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.

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