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) August 9, 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)

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 (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- 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))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Items 5.02. Departure of Directors or Principal Officers; Election of Directors; Appointment of Principal Officers.

As part of the Company's recent financing reported on a current report on Form 8-K filed on August 2, 2005, the Company entered into a Rights Agreement (the "Rights Agreement") with various investors (collectively, the "Rights Investors"). In the Rights Agreement, the Company agreed, among other items, to expand the size of the Board of Directors by one member and appoint a nominee of the Rights Investors to the Board. At a meeting on August 9, 2005, the Board of Directors expanded the size of the Board from five (5) to six (6) and appointed Mr. Keith Meister, the designee of the Rights Investors, to the Board of Directors. It is presently anticipated that Mr. Meister will be appointed to certain committees of the Board; however no decisions have yet been made on this matter.

Since June 2002, Mr. Meister has been a senior investment analyst of High River Limited Partnership, a company owned and controlled by Carl C. Icahn that is primarily engaged in the business of holding and investing in securities. Mr. Meister is also a Senior Investment Analyst of Icahn Partners LP and Icahn Partners Master Fund LP. He is also a director of Icahn Fund Ltd., which is the feeder fund of Icahn Partners Master Fund LP. Icahn Partners LP and Icahn Partners Master Fund LP are private investment funds controlled by Mr. Icahn. Since August 2003, Mr. Meister has served as Chief Executive Officer of American Property Investors, Inc., which is the general partner of American Real Estate Partners, L.P. (NYSE: ACP), a public limited partnership controlled by Mr. Icahn that invests in real estate and holds various other interests, including the interests in its subsidiaries that are engaged, among other things, in the oil and gas business and casino entertainment business. Mr. Meister serves as a director of Icahn Fund Ltd., XO Communications, Inc., American Entertainment Properties Corp. and Scientia Corporation, a private health care venture company. From March 2000 through the end of 2001, Mr. Meister co-founded and served as co-president of J Net Ventures, a venture capital fund focused on investments in information technology and enterprise software businesses. From 1997 through 1999, Mr. Meister served as an investment professional at Northstar Capital Partners, an opportunistic real estate investment partnership. Prior to his work at Northstar, Mr. Meister served as an investment analyst in the investment banking group at Lazard Freres. Mr. Meister received his A.B. in Government cum laude from Harvard College in 1995.

Item 8.01. Other Events.

On August 12, 2005, the Company announced it has appointed Keith Meister to its Board of Directors, expanding its board membership from five to six. The press release issued by the Company on August 12, 2005 with respect to this matter is included with this report as an exhibit.

Item 9.01. Financial Statements and Exhibits.

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

SIGNATURES

August 12, 2005

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

EXHIBIT INDEX

Exhibit Description Press Rel

Press Release of the Company dated August 12, 2005.

ADVENTRX EXPANDS BOARD MEMBERSHIP

SAN DIEGO - AUGUST 12, 2005 - ADVENTRX Pharmaceuticals, Inc. (Amex: ANX) today announced the appointment of Keith Meister to its board of directors, increasing board membership from five to six. Mr. Meister was nominated to the ADVENTRX board by investor Carl Icahn in accordance with the terms of ADVENTRX's \$20 million private equity financing completed late last month.

"We welcome Keith to our board and look forward to calling upon his financial experience," said Evan M. Levine, ADVENTRX president and CEO. "We believe Keith will provide an important voice on our board at this key time in our corporate development, as we move forward with CoFactor(TM) development and evaluate additional product pipeline opportunities."

Mr. Meister is currently CEO of American Property Investors, Inc., a general partner of American Real Estate Partners, L.P. (NYSE: ACP). He also serves as senior investment analyst of High River Limited Partnership, Icahn Partners LP and Icahn Partners Master Fund LP. Previously, Mr. Meister co-founded and served as co-president of J Net Ventures, a venture capital fund focused on investments in information technology and enterprise software businesses. Before that, he served as an investment professional at Northstar Capital Partners, a real estate investment partnership, and as an investment analyst in the investment banking group at Lazard Freres.

Mr. Meister currently serves as a director of Icahn Fund Ltd., XO Communications, Inc., American Entertainment Properties Corp., and Scientia Corporation, a private health care venture company. He received his A.B. in government, cum laude, from Harvard College in 1995.

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 and safety of existing drugs, by addressing significant problems such as drug metabolism, toxicity, bioavailability and resistance. The Company's lead compound, CoFactor is a biomodulator of 5-fluororacil (5-FU), a widely used cancer chemotherapy. CoFactor met the primary endpoint for response and secondary endpoint for safety in an ongoing Phase II clinical trial. CoFactor is currently being tested with 5-FU in this US-based Phase II clinical trial and an EU-based Phase IIb clinical trial as a first line treatment of metastatic colorectal cancer. In addition, CoFactor has received clearance under a special protocol assessment from the US FDA to begin a Phase III pivotal clinical trial for metastatic colorectal cancer. 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-Q, 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

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