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) September 4, 2004

ADVENTRX Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation)

000-33219 (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 5.02. Departure of Directors or Principal Officers; Election of Directors; Appointment of Principal Officers.

- (b) Effective September 4, 2004, Nicholas J. Virca resigned from his positions as President and Chief Executive Officer of the Company (principal executive officer) and member of the Board of Directors of the Company.
- (c) Effective September 4, 2004, Evan M. Levine, the Vice Chairman of the Board of Directors, Chief Operating Officer and Secretary of the Company, has been appointed by the Board of Directors of the Company to also serve as President and Chief Executive Officer of the Company.

The information regarding Mr. Levine's business experience and directorships with other reporting companies under the heading "Directors, Executive Officers and Significant Employees" of Item 9 of the Company's Annual Report on Form 10-KSB, filed with the Securities and Exchange Commission on March 26, 2004, is incorporated into this report by reference.

The information regarding the Company's relationships and related transactions with Mr. Levine under the heading "Certain Relationships and Related Transactions" of Item 12 of the Company's Annual Report on Form 10-KSB, filed with the Securities and Exchange Commission on March 26, 2004, is incorporated into this report by reference.

Item 8.01. Other Events.

On September 8, 2004, the Company announced the appointment of Mr. Levine to the positions of President and Chief Executive Officer of the Company and Mr. Virca's resignation from the same positions. The press release issued by the Company on September 8, 2004 with respect to this appointment and resignation 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/ Steven M. Plumb

Name: Steven M. Plumb
Title: Chief Financial Officer

September 8, 2004

EXHIBIT INDEX

Exhibit Description

99.1 Press Release of the Company dated September 8, 2004.

ADVENTRX Board of Directors Appoints Evan Levine President and CEO

SAN DIEGO - (PR Newswire - First Call) - September 8, 2004. ADVENTRX Pharmaceuticals, Inc. (AMEX: ANX) announced today that the Board of Directors appointed Evan M. Levine to serve as President and Chief Executive Officer effective September 4, 2004, to fill the place of Nicholas J. Virca who resigned from his positions effective September 4, 2004. Mr. Levine has served as Vice Chairman of the Board and Chief Operating Officer of ADVENTRX for the past two years.

"The Company appreciates the vision and leadership that Mr. Levine has demonstrated during the last two years" commented Board Chairman M. Ross Johnson, Ph.D. Dr. Johnson added, "Mr. Levine brings a wealth of business development and financial experience as well as the needed commitment and drive to transition ADVENTRX from a purely research and development firm to a more mature pharmaceutical enterprise."

Mr. Levine has in-depth experience in business management, finance and consulting with teams of biotechnology professionals. Since joining ADVENTRX, he has participated in the management of the clinical development process and spearheaded multiple financing transactions that have enabled ADVENTRX to move forward with its business plan.

"I wish Mr. Levine and the staff well and I am confident that Mr. Levine will continue to execute ADVENTRX' business plan and propel the company forward," stated Mr. Virca.

About ADVENTRX Pharmaceuticals

ADVENTRX Pharmaceuticals Inc. is a biopharmaceutical research and development company whose business strategy is to commercialize leading edge medical research through licensing agreements with prominent universities and research institutions. The Company focuses on cancer and antiviral research to launch products that either extend the usefulness of current therapies or replace marginal therapies with new approaches to treatment.

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 processes, the timing and success of clinical trials, the validity of research results, and the receipt of necessary approvals from the United States Food and Drug Administration and similar regulatory agencies in Europe. 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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